SYMPOSIUM: ON WHAT THERE IS.

Mr. P. T. Geach, Prof. A. J. Ayer, Prof. W. V. Quine.

I.—By Peter Thomas Geach.

Professor Quine's paper On What There Is¹ is mainly concerned with two closely connected problems—the Platonic puzzle over non-being, and the problem of things and properties. To this sort of enquiry he gives the traditional name "ontology", i.e., "discourse about that which is": the question is what we are doing when we assert or deny existence.

The parodox of non-being may be briefly stated as follows. "I can never consistently deny the existence of a thing. For in using a term as subject of an assertion, I am implying that the term has something to stand for; but at the same time, by attaching to this subject a predicate that denies existence, I am implying that it has nothing to stand For example, if I say 'dragons do not exist' or 'the American Emperor does not exist' my use of the predicate 'do(es) not exist' requires that the term 'dragons' or 'the American Emperor' should have nothing to stand for; but in that case my assertion is empty, for there is nothing for So anything that I might want to me to make it about. say does not exist does somehow exist, in some realm of being; I imply this in the very attempt to deny it." uses the apt nickname "Plato's beard" for the tangled doctrine that results from accepting this conclusion; I need not follow him through its ramifications (pp. 21-5), since we agree that it must be completely rejected.

The familiar answer is: "existence isn't a predicate". But how do we show this? and how does this solve our problem? To say that in existential assertions "——exists" of "there is ——" is not a logical predicate is equivalent to a denial that the grammatical subject of this verb is being

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used as a logical subject. Now it is easy to transform an existential statement so that its grammatical subject appears as a logical predicate. Thus "there are no dragons" means "nothing is a dragon"; and similarly for definite descriptions: "the American Emperor exists" means "somebody is an American Emperor and nobody besides him is an American Emperor". But a logical predicate never stands for a thing that it applies to or is truly predicable of. Thus "dog" is truly predicable of any dog you like; but when "dog" is being used as a predicate, it is senseless to ask which dog or dogs it refers to. I do not mean that "dog" never stands for a dog; which, indeed, would be a very odd thing to say. If I say "a dog was chasing my cat Jemina yesterday", it seems natural to regard "dog" in this context as standing for a dog; for you may certainly try to identify the animal, or find out more about him, by asking such questions as "which dog?", "whose dog?", "does he often chase cats?" But when we use "dog" as a predicate, as in "Jemima is not a dog", such questions are senseless; "dog" in such contexts does not stand for any dog or dogs. Similarly, even if there were dragons, the use of "dragon" as a predicate would not be a mention of any of them. But "dragon" is used predicatively in "a dragon does not exist", i.e., "nothing is a dragon"; so no question arises which dragon we are referring to, and the apparent inconsistency vanishes.

Nor can it be said that the use of a predicate implies that there is something of which it can be truly predicated. If I said "Einstein is not able to square the circle", it would be very odd if someone said in objection to this that the predicate "able to square the circle" does not apply to anbody. It is just because the predicate does not apply to anybody that it can be truly denied of Einstein. So to say "nothing is a dragon" does not imply that the predicate "dragon" can ever be truly predicated; and again there is no inconsistency.

I think this is the solution that Quine is trying to state (cf. e.g., the last paragraph on p. 26). Unfortunately he does not state it at all clearly. For one thing, he fails to

make a sharp distinction between an expression that stands for, and a predicate that applies to, a thing. This is the distinction slurred over by the old logicians when they speak of a term that denotes a thing. Quine borrows the old terminology; he says that, in the statement "there are red roses", "roses" denotes individual roses and "red" denotes individual red objects (pp. 29–30). I am sure what he means is that "red" applies to or is truly predicable of individual red objects; but what he says would naturally lead us to suppose that, in "there are no dragons", "dragons" must denote individual dragons—and then we should be entangled in Plato's beard all over again.

Again, as Russell and Frege have pointed out, existential statements such as we are now considering always have a common noun or a descriptive phrase as grammatical subject-never a proper noun. Our solution for the problem of non-being depended on this fact; for it was effected by turning the grammatical subject into a predicate; any common noun or descriptive phrase can thus be dealt with, but a proper noun cannot be made into a predicate (unless it has become a common noun, like "Judas" in the sense "traitor"). Existential statements whose grammatical subject is a proper noun work in quite a different way. Ouine does not notice this; on the contrary, he regards "Pegasus does not exist" as essentially similar to "the King of France does not exist" (pp. 22-4, 27). Now in fact "Pegasus does not exist" or "Pegasus is not real" is used in order to point out the difference between factual and fictional statements. When I say to a child "Pegasus is not real like Iolo", I am referring to a difference, not between two horses, but between two ways of using proper nouns; "Iolo" is used for naming, and "Pegasus" just for telling a story. Of course this raises the whole question: What constitutes the fictional use of language? The problem is important for ontology, but it would take us too far to discuss it.

Again, Quine thinks he is in duty bound to show that not merely the grammatical subjects of existential assertions, but *all* ostensible names, can be turned into predicates; he

uncritically adopts an extreme form of Russell's Theory of Descriptions. Proper names, he thinks, could well be replaced by verbs in "ize" derived from them; for example "John is teasing Jemima" might become "something johannizes, and something else is being teased by it and jemimizes" (pp. 25–7). I need not discuss the value of such translations; for later on Quine himself admits that names are "immaterial to the ontological issue" (p. 32); whether we use them in the ordinary way or get rid of them by his sort of device makes no difference at all to what we are committed to saying there is.

Quine's motive for getting rid of names is a desire to eschew what is logically superfluous. What we use names for is to refer to objects. Now Quine thinks this job is already done by such pronouns as "something", "nothing", "everything" (p. 25); names are just handy substitutes for such pronouns, and might well be called pro-pronouns (p. 32). The objects referred to by such pronouns are entities in general (p. 26); we may say that to be is to be in the range of reference of a pronoun (p. 32). And what characterizes the reference of such pronouns to entities in general is a peculiar sort of studied ambiguity (p. 26).

Quine is by no means the only philosopher to think that pronouns, like names, serve to mention or refer to objects; and the view is quite a natural one. Pronouns often behave grammatically in much the same way as names, even in much the same way as proper names; it seems plain common sense to say that the pronoun "this" is a mention of this, and that "everything" refers to everything and "something" to something or other. Accordingly, "this" and "that" have often been held to be a sort of proper names; and Quine similarly holds that "everything" and "something" refer to entities in general—to everything, to something or other—with systematic ambiguity.² The further idea that pronouns are superior to names in their mode of reference

² Quine also holds that "nothing" has this sort of ambiguous general reference. But surely if "everything" refers to everything and "something" refers to something or other, then we must say that "nothing" refers to nothing.

arises, I think, from a desire for an infallible means of reference. If I call an object "Jemima" or "cat" I may be mistaken; but surely not if I just call it "this" or "something"! If I answer the question "what is there?" by giving a list, I may go wrong; but surely not if I reply "everything"! So people get the idea that "this" and "that" are the only genuinely or logically proper names; and Quine thinks names are mere pro-pronouns.

If we want to see how names really do work; what it is for a name to refer to an object; then we must sharply distinguish the jobs done by names and by pronouns, and not trust the grammatical resemblances. Demonstratives are quite different from names, just as a pointer is quite different from a label. A demonstrative pronoun relates to what is present to the senses: it is of the essence of a name that we can use it in talk about an object no longer present to us. Again, in "Jemima is a cat" the name "Jemima" is the logical subject of the predicate "(is a) cat"; it is a name of something to which that predicate applies. But the logical relation in "that is a cat" is utterly different; here "cat" is not a predicate attached to the subject "that", but a name of something to which "that" draws attention. We may see this from the possibility of saying "that is Jemima"; the proper noun "Jemima" is certainly being used just as a mention of Jemima, not in order to predicate something of her. I might convey the sense of "that is Jemima" or "that is a cat" by a simple act of naming—by just uttering the name (and perhaps pointing).

Demonstrative pronouns and names may be respectively compared to the hands of a watch and the figures on its face; when a watch tells the time by means of a hand pointing to a figure, this is comparable to such a sentence as "that is Jemima". But some watches have no hands, and tell the time just by showing the appropriate figures; that is like just saying "Jemima!" or "cat!" To think a demonstrative is a means of mentioning an object, perhaps a superior means, is like thinking that the watch-hands do the same sort of work as the figures, and perhaps do it better.

Grammar is no more a safe guide as regards indefinite pronouns than as regards demonstratives. For in spite of their grammatical difference, the indefinite pronoun "something" does the same job as the verb "exists" (ens et aliquid vonvertuntur); "something is a red rose" means just the same as "a red rose exists." If we think "something" is a deliberately indefinite mention of an object, we are making as big a mistake about its special job as we are if we think "exists" stands for a peculiar attribute of objects.

To support his view about "everything" and "something", Quine compares them to (bound) variables in symbolic logic; since the variables "x" and "y" have no definite reference, he thinks they must have indefinite reference (pp. 26, 32). But the symbolic rendering of "something" or "everything" is not just "x" or "y". Let us write "(Ax)" or "(Ay)" for the universal, and "(Ex)" or "(Ey)" for the existential, quantifier. Then "something is a red rose" might be rendered thus:

"
$$(Ex)$$
 $(Red x & Rose x)$ ".

Now here what answers to "something" is not just the letter "x", but the quantifier "(Ex)" along with the two following occurrences of "x". This quantifier does not work by studied ambiguity of reference—no more than the conjunction "&" does in the same formula. And "(Ex) (...x...x)" is a logical constant; as we see from such an alternative symbolic rendering as

where it is replaced by the logical constant "E". The verbal contrast between "variable" and "constant" obscures this fact; here as elsewhere, "variable" is a most misleading term.

Again, the reason why the so-called bound variables "x" and "y" have no definite reference is not that their reference is indefinite, but that they have no reference at all, just as brackets and commas have none. They might indeed be replaced by brackets (only this would make formulæ harder to read and print). For example, instead

of symbolizing "somebody loves and is loved by everybody" thus:

"(Ex) (Ay) (Loves
$$x, y & Loves y, x$$
)

we might write something of this sort:

This is clearly explained by Quine himself (*Mathematical Logic*, p. 70). We can thus no more ascribe a "range of values" or "range of reference" to "x" and "y" than to the vinculum "———" that might take their place However much Quine may wish to eliminate names, he is assuredly wrong in thinking variables can take over from names the job of referring to objects.

The traps that Quine here falls into, in spite of expressing himself clearly in other works, sufficiently illustrate the dangers of the term "variable". As Frege pointed out, the whole terminology of "variables" and "values of variables" leads to endless confusions; logicians would do well to dispense with it. If we need to talk about letters in a symbolism, we may follow Frege's example and use typographical terms like "lower-case italics".

What then is the job of the pronoun "something" or the verb "exists"? If I say "something is a red rose" or "a red rose exists", the phrase "red rose" is being used predicatively; and I should agree with Frege that what the sentence is an assertion about is that which the predicate "(is a) red rose" stands for (bedeutet). Thus we may call "something (is)—" or "—exists" a second-level predicate. A first-level predicate can be attached to a name, in order to make an assertion about that which the name stands for; a second-level predicate can be attached to such a first-level predicate, in order to make an assertion about that which it stands for.

Quine's misunderstanding of second-level predicates arises from his unwillingness to admit that first-level predicates do stand for anything. He wants to say that they have sense in a context but do not stand for anything (p. 30); in fact that they are syncategorematic.³ But it is obvious off hand that a predicate like "red" works quite differently from a syncategorematic word like "if" or "all". Quine persistently gives the problem a wrong twist by using the verb "name" instead of my "stand for". It is odd, and perhaps misleading, to say predicates name something; I have found it preferable to use the nouns "name" and "predicate" as contrasted terms, and to employ the verb "name" only for what I call "names". But this is just a matter of words; the question whether predicates do stand for something is unaffected.

Again, Quine raises the entirely different question whether abstract nouns stand for something, and seems to take it for granted that if the predicate "red" stands for anything, then it stands for what the abstract name "redness" stands for (pp. 30-31). Let us ignore abstract nouns and stick to predicates. Whatever "redness" may or may not stand for, the predicate "red" certainly stands for something. If A and B are both red, then there is something that they both are, and "red" stands for this.

Quine thinks that if I say "A and B both are something, viz., red", this commits me to recognizing two sorts of entities: concrete entities like A and B, and abstract or universal entities like what A and B both are. His mistake is like the following one: "Jemima and Ahab, being cats, are the same animal. So there are two sorts of animals: concrete individual animals, like Jemima and Ahab; and abstract universal animals, like the Cat—the animal that Jemima and Ahab both are". The essential point here is that the phrase

"the animal that Jemima and Ahab both are"

so far from being a name of a third, abstract animal, is a logical predicate and not a name at all. It could be

³ This is the actual word used to describe predicates in the paper "Steps towards a constructive nominalism," by Nelson Goodman and W. V. Quine (Journal of Symbolic Logic, XII, 4, December, 1947).

substituted for the simple predicate "cat"; we could say, instead of "Fido is not a cat",

"Fido is not the animal that Jemima and Ahab both are".

It is senseless to join names and predicates in the same list— "Jemima and furry", "Fido and bit John"; so it is equally senseless to say:

"Jemima and Ahab and the animal that they both are".

Now to this difference between names and predicates there answers a difference between the uses of "something" in the sentences:

"something (viz., A) is red" and "A and B both are something (viz., red)".

For in the first, "something" is replaceable by the name "A"; in the second, it is replaceable by the (first-level) predicate "red". We therefore cannot infer, as Quine would have us do:

"something is red, and is a concrete entity; something else, which A and B both are, is an abstract or universal entity".

This "something . . . something else . . . " is nonsensical, like a list in which "Fido" and "bit John" occur side by side as items.

It is natural to feel the need of a general term for what predicates stand for; to say, e.g., that what a predicate stands for is a property. This way of speaking has its dangers, but can be given a harmless interpretation; "property" may here be taken to be just short for "something that an object is or is not". But if we say that the predicate "red" stands for an abstract or universal entity, no such innocent interpretation is possible. The phrase "what the predicate red'stands for "is properly a logical predicate, like "red" itself; just as

. "what the proper name 'Jemima' stands for" is a roundabout way of mentioning Jemima, so also

"Jones's nose is—well, what the predicate 'red' stands for"

is a circumlocution for "Jones's nose is red". If on the other hand we say

"what the predicate 'red' stands for is an abstract or universal entity"

then we are trying to use as a logical subject a phrase that is essentially predicative; and thus we are just talking nonsense.

I may pass briefly over what Quine says about the foundations of mathematics (pp. 33-4). A proper discussion of the way number-words work would need a paper to itself; and if Quine and I cannot agree about predicates like "red", it will scarcely be profitable to discuss Quine's account of disputes between mathematical philosophers over more recondite points.

I will end with some remarks on Quine's conception of ontological disagreement. He expresses the hope that people who disagree over ontology may find a basis of agreement by "withdrawing to a semantical plane" (p. 35). This hope seems to me illusory. People with different world-views will still differ when they talk about language, which is part of the world. Quine's imaginary opponent McX, who says that "the property of being red" is a name of an abstract entity (pp. 29-30), says also that "the meaning of the word 'red' " is a name of an abstract entity; so by talking about language Quine and McX merely get another case of their old dispute. This was inevitable; any ontological problems, and any fundamental disagreements, that come out over the predicate "is red", will also come out over the predicate "means red"; we gain nothing by thus resorting to language Again, take the sentence "there are about language. twenty-six letters of the English alphabet". Quine must think this assertion commits us to acknowledging twenty-six abstract entities over and above concrete inscriptionsunless indeed it is a popular and inaccurate manner of speaking, which must be analysed away. I do not share these puritanical objections. A child that knows its ABC

and can count can understand and verify this assertion (although it certainly could not understand Quine's constructively nominalistic analysis); and surely such a child is not believing in a realm of abstract entities. This disagreement is one that would arise over the sentence "there are a hundred different animals in the Zoo"; talking about language rather than the Zoo does not stop the dispute but only shifts it to new ground.

Quine seems to me to be quite wrong in comparing ontological to scientific disputes (pp. 35-8). Two men of science can usually agree in stating what it is that they disagree about. But if two people disagree over ontology then, as Quine himself remarks, they will object to each other's formulation of the disagreement; I find it odd that Quine should call this fact "unimportant" (p. 21). Just because I reject Quine's ontology, I cannot even accept his view of what constitutes ontological disagreement. At the very beginning of his paper, Quine says confidently that everybody will understand the ontological problem "what is there?" and will accept "everything" as a correct answer; there is room for disagreement only over cases. I think that in saying this he already goes wrong. is —— " has not just one sense, but a lot of senses in different contexts; if I am asked "what is there?" and no context is supplied (except that I am told this is the ontological problem), then I have no idea what answer is wanted; the answer "everything" (i.e., "there is everything") makes even less sense to me than the question. Quine indeed holds that the pronoun "everything" refers in a studiously ambiguous way to all sorts of entities—ranges over our whole ontology (p. 32); and he speaks as though we could list these sorts of entities, so that ontological disagreements would be disagreements over items of the list. Are we to put in sense-data? physical objects? abstract entities? possibilities? What he is ignoring are facts like these: though something" can be replaced in some contexts by a proper name like "Jemima", and in others by a predicate like "tabby", no list can include "Jemima" and "tabby" as items side by side; "Iemima and tabby" is senseless. We cannot make a list of kinds of entity, as if they were so many animal species. Ens non est genus.

It may be laid down as a rule of method that no direct deductive proof is any good against somebody who rejects your ontology. In one place Quine seems to see this: "Judged within a conceptual scheme—and how else is judgment possible?—an ontological statement goes without saying" (p. 28). It would thus certainly beg the question to attempt direct demonstration of an ontological thesis against an opponent.

We need not on that account accept Quine's view that various ontologies may be equally right and that our choice of ontology must depend on our various interests and purposes (pp. 36-8). For the conceptual scheme is not a matter of free choice. Certain concepts, like existence and truth and thing and property, are used, and cannot but be used, in all rational discourse whatsoever; and ontology is an attempt to scrutinize our use of them. To be right or wrong in ontology means being clear or muddled about such fundamentals. In an ontological dispute, at least one side (very likely both) will be in a muddle; no wonder, then, that there is no agreement over the formulation of the disputed points!

If somebody attacks your ontological position, you will be begging the question if you use straightforward deduction against him; what you must do, as Aquinas pointed out, is to pick holes in his arguments—solvere rationes ipsius. And if your own thesis really is sound, there certainly will be holes in the opponent's arguments; self-contradiction, or bad logic, or a surreptitious use of the thesis supposedly rejected.

⁴ Summa Theologica, Ia, Q, 1, art. 8.

II.—By A. J. AYER.

LET me begin by saying what I take Professor Quine's position to be. He holds that from the fact that a sign has meaning it does not, in general, follow either that there is anything that it stands for, or that there is anything This applies, in his view, not only to words that it denotes. like "red" which are sometimes thought to stand for properties, but also to words like "Pegasus", which are commonly regarded as names; for he argues that it is always possible to convert such names into descriptions, and then analyse out the descriptions in the way that Russell has suggested. Moreover, even in the case where an expression does denote something, it does not follow that what it means is identical with what it denotes; for, as the example of "the morning star" and "the evening star" shows, two expressions may denote the same object without Whether in such cases, or having the same meaning. indeed in any others, Professor Quine would wish to say that an expression named, or stood for, what it denoted, is not clear to me; nor is it clear to me whether he thinks that there are any signs, such as demonstratives or pronouns, which are meaningful only if there is something which But these points are not important for his they denote. argument. What he is concerned to prove is that it is true of all general terms and of a great many, if not all, singular terms that one can use them meaningfully without thereby committing oneself to the existence of anything whatsoever. That is to say, one can use them to make significant, and not merely formal, statements which are such that it does not follow from them that anything exists.

At the same time, one may very well wish to make assertions from which it does follow that something exists; and to the extent that we do make such assertions we are, according to Quine, committed to an ontology. To say that one is committed to an ontology is, indeed, just his way of saying that one affirms that something or other exists. Suppose, now, that we introduce the convention that when we wish to state that something exists we are to

use an existential quantifier. Then the objects which we suppose to exist will be all and only those that are values of the variables which are bound by such existential quantifiers. The range of our ontological commitments may, however, be reduced by our ability to recast some of our existential statements in such a way that variables which take a certain type of value disappear from them. for example, be able to dispense with abstract entities by showing that existential statements in which the bound variables have abstract entities for their values can be transformed, without alteration of meaning, into statements in which there are no bound variables but those allowing as values only concrete entities. This is, indeed, the programme of nominalism, as Quine conceives it. To the extent that we are unable to carry through the programme we are, in his view, admitting abstract entities into our ontology: and, in general, we are obliged to recognise the existence of the values of any type of variable that we are unable to eliminate from those of our statements that can be existentially quantified.

But how are we to decide which are the statements that admit of existential generalization? Is it always the case that when we assert that ϕa , we imply that there is an x such that ϕx ? Certainly, there are many instances in which this implication is not thought to hold. that the ghost of Miltiades was seen by the Benthamite, I do not necessarily imply that there was anything that was both a ghost and what the Benthamite saw. It would be quite consistent for me to believe the story about the Benthamite and disbelieve in the existence of ghosts. The Benthamite had an hallucination: he saw what was not there. again, to take an example of Quine's own, from the statement that appendicitis is dreaded, it need not follow that there exists something which is dreaded. The motive for refusing to draw this conclusion might be that which Quine envisages, an unwillingness to allow that there are diseases, as distinct from things which are diseased: but the same refusal might be made by someone who did not at all mind saying that there were diseases but thought that appendicitis

was not a disease that anybody ever had. In either case it is maintained that to be feared is not necessarily to exist; but there is a difference, perhaps not sufficiently marked by Quine, between denying that something exists on the ground that nothing of that kind can exist and denying that something exists on the ground that the sufficient conditions for its existence are not in fact fulfilled. There is, in other words, a distinction to be drawn between the cases in which one rejects an existential claim on empirical grounds and those in which it is rejected as a matter of principle: and it is only the second class of cases that has a philosophical interest.

Now I am sure that Quine would agree that in asserting ϕa we do not always imply that there is an x such as ϕx . But he might still wish to say that the assertion of ϕa carried with it some ontological commitment, that even if it did not entail that there was anything that satisfied ϕ , it did entail that there was something that satisfied ψ , where ψ was a different predicate, perhaps a predicate of a different order, from ϕ . There was no ghost for the Benthamite to see, but there was at least a sense-datum, the appearance of a ghost, which he sensed. Or, if we do not care to admit sense-data into our ontology, there was at least the Benthamite's body, which was in such and such a pathological state. At all events, something happened; we are affirming a fact of some sort, however we may choose to describe it. The ways in which we do choose to describe such "facts" will depend upon our conceptual system; and it is, according to Quine, the choice of a conceptual system that determines one's ontology.

Quine himself says that "the only way in which we can involve ourselves in ontological commitments (is) by our use of bound variables". But this is misleading, as it stands. For it seems to suggest that we could rid ourselves of these commitments altogether merely by changing our notation. Since the function of the bound variable, as Russell uses it, is to assign to predicates a range of application, it would be better to say that we are involved in ontological commitments only to the extent that we use predicates

which are alleged to apply to something. And if one is asked what it is that they apply to the only answer one can give is that it is whatever satisfies the predicates in question; to describe what they applied to would at best be to adjoin other predicates to them, leaving the objector free to ask what it was that these predicates applied to; and no doubt if one were sufficiently resourceful one could continue this game for some time. But there would be no point in continuing it. For in using a predicate we already describe what it applies to. If I use the English word "woman" correctly, I use it to talk of women. It can indeed be said that I use it to talk of adult human females, but the only point of this would be to explain the use of the word "woman" to someone who did not understand it but did understand the use of "adult human females". It is true that merely by understanding the use of the word "woman", or some predicative expression which is equivalent to it, we do not know what it applies to, in the sense of being able to list all the women that there are. But if names can be converted into descriptions, then listing the members of a class will simply be a question of adding further predicates; to say that the class contains at least two members will be to say that the predicate by which the class is defined is an ingredient in at least two compound predicates, each of which has application. Perhaps Mr. Geach has something of this sort in mind when he speaks of "exists" as a secondlevel predicate: he may be proposing that instead of talking of objects existing we should talk of properties being To this Quine takes exception on the ground instantuated. that he does not accept a view which implies that predicates stand for something. But to say of a predicate that it applies to something, or to make an equivalent statement in the object language by coupling the predicates with an instantiation symbol, which is all indeed that Russell's "I x" comes to, is not necessarily to imply that there are properties, as opposed to what instantiates them. contrary, if to say that an object exists is to say that a property is instantiated, then to say that this property exists will be to say that some other property is instantiated,

namely, some property which this property instantiates. And from the fact that a property ϕ is instantiated it certainly does not follow that there is anything that it instantiates.

The conclusion, then, which we appear to reach as a result of following Quine's argument is that if we use a predicate in such a way as to assert or to imply that it has an application, we affirm the existence of anything by which the predicate is satisfied. But again we come upon the difficulty that not all the predicates that we use are regarded as being capable of applying to anything. For a formalist who does not admit numbers into his ontology, the expression "being a prime number between 7 and 13" may have a meaning, but he will not allow that there is something to which it applies. But how, except in the case of negative existential statements, where it is actually asserted that a predicate applies to nothing, are we to distinguish between those predicates that are to be taken as applying to something and those that are not? The answer which Ouine seems to give, when he is dealing with the problems of nominalism, is that we must always take them as applying to something unless we are able to replace them by other predicates; and here the criterion for one predicate's being replaceable by another is the possibility of translating the statements in which it figures into statements which do not contain it but do contain the other. Thus the formalist aims to get rid of numbers by construing statements about numbers as statements about signs. This is a bad way of putting it since, if he is right, there can be no such thing as "a statement about numbers", but it should be clear what is meant. And he succeeds only if of all the mathematical statements that he wishes to put forward there are none that he cannot reformulate as statements about signs.

There is, however, another example of Quine's in which he seems to use a different method of assessing ontological commitments. When speaking of our freedom to adopt alternative conceptual schemes he gives as an instance the use of a physicalistic or a phenomenalistic scheme to describe what is perceived. He says that if our conceptual

scheme is phenomenalistic we shall regard "the conceptual scheme of physical objects as a convenient myth", and he implies that this view is justified if it suits our "interests and purposes". One might, therefore, expect him to hold that statements about physical objects could be replaced, without alteration of meaning, by statements For if we are committed to abstract about sense-data. entities so long as we are not able to refashion our statements in such a way that none of the bound variables which they contain take abstract entities as values, it would seem that the same should apply to physical objects. dispense with them, on this showing, only to the extent that the statements which appear to mention them are actually translatable into statements which do not. what Quine in fact says is that "there is no likelihood that each sentence about physical objects can actually be translated, however deviously and complexly, into the phenomenalistic language". And yet he holds that we are entitled if we please to treat physical objects as merely "postulated entities". But if we are unable to eliminate from our discourse the predicates which are understood as applying to physical objects, how is it that we are still free to deny that physical objects exist? By what criterion is it to be decided that something is a postulated entity? Is it simply a matter or refusing to say that it exists?

Quine himself offers no solution to the problem, but I think that the difficulty can be met. Let us say that a predicate ϕ is reducible to a set of predicates κ if it is not logically possible that anything should be experienced which exemplifies or manifests ϕ unless something exemplifies one or more members of κ , but it is logically possible that something should be experienced which exemplifies or manifests a member of κ even though nothing exemplifies ϕ . And let us say that a predicate is basic with respect to a given language if the language contains no predicate, or set of predicates, to which it is reducible. Then we may construe the statement that certain objects are postulated entities as a statement that certain predicates, namely, those that ostensibly apply to the objects in question, are not basic.

For, on this view, only what satisfies the basic predicates will be admitted to exist.

It is easy to see that this criterion requires much less than the other of those who wish to reduce their ontological For one predicate may be reducible to commitments. others, in the sense defined, without being eliminable in Reduction does not here imply the possibility their favour. of translation. Nor are we left with any problem about ridding ourselves of abstract entities. For even those who wish to say that there are abstract entities do not maintain that we experience anything that they instantiate without thereby experiencing anything that instantiates them. On this view, the question of one's ontology is a matter of how one chooses to describe what is experienced. It does not commit us to phenomenalism, not even to the weakened form of it which is here in question. We can employ a physicalistic language if we choose. But in any language which admits sensory predicates, they will be basic.

But this, it may be said, is a very arbitrary procedure. No doubt we can rid ourselves of abstract entities, or even of physical objects, by so limiting our use of the word "exists" that we can consistently label them as "convenient myths", but this does not prove that they really have no being. For what right have we to assume that nothing exists but what can be experienced? If someone wishes to have a more generous ontology, how can we refute him except on the basis of definitions which he is at liberty to reject? May he not even be right?

Let us explain this objection with the help of an example. It is maintained by Geach that "whatever 'redness' may or may not stand for, 'red' certainty stands for something, when used predicatively; if A and B are both red, then there is something they both are, and 'red' stands for this". To which Quine repties that "this step is gratuitous even granted a predilection for abstract entities". It is quite bad enough to supply entities for abstract singular terms to stand for, without making the corresponding predicates stand for entities as well. It seems to me, however, that Quine here misunderstands Geach just as he

accuses Geach on many points of misunderstanding him. For Geach explicitly says that expressions like "the colour that A and B both are" are not to be regarded as names. They are predicative expressions and so, according to him. are expressions like "what the predicate 'red' stands for ". Consequently, to say that there is something that a predicate stands for commits us, on this interpretation, to no more than we are committed by using the predicate. It certainly does not commit us, as Geach himself points out, to holding that what the predicate stands for is an abstract entity. for this would lead, in the example chosen, to the absurd conclusion that some abstract entity was red. No doubt Ouine has been misled here, as he well might be, by Geach's use of the expression "stands for". He assumes that Geach's "standing for" is what he himself calls "naming": but this is a mistake. On the contrary, one of the points that Geach appears most anxious to establish is that there may be something that a predicate stands for even though there is nothing that, in Ouine's sense, it names. is so anxious to establish this I do not know. It seems to me that whenever he says that predicates stand for something he could equally well for his purposes have said simply that they had a meaning. And this would have made it clearer that, at least as regards the being of abstract entities, his disagreement with Quine was merely one of terminology.

But let us suppose that someone wishes, as Geach apparently does not, to put forward the view that predicates do name abstract entities. Can it be shown that he is wrong? It might be pointed out that since we can modify our usage in any way we please, the realm of abstract entities must be remarkably crowded; but this may not disturb him. He may be willing to affirm that there is an abstract entity waiting to be named by any predicate that anyone can devise. In that case, the most that can be done, I think, is to show that his assumption is gratuitous. Suppose, what is generally the case, that his only ground for believing in abstract entities of this type is that words have meaning. Then our task will be to show that the fact that words have meaning can be explained without

this assumption, and further, that this assumption does not itself explain it. Once this is achieved, we need not object to anyone's saying that there are universals. For we can construe it simply as a way of saying that predicative expressions are meaningfully used and under stood.

The question of universals is unrewarding as a subject for ontology since nothing turns on it. Once we have set out the motives for saying that there are universals and the motives for saying that there are not, the decision is Whichever view is taken, nothing follows unimportant. with regard to the truth or falsehood of any statement in which the predicates which are supposed to stand for universals are used. In other cases, however, a disagreement about ontology may lead to, or reflect, a disagreement about the validity of the statements in which the expressions giving rise to the dispute occur. A formalist may reject a section of mathematics which a realist accepts; a phsyicalist, who is attracted to positivism, may object to the introduction of unobservables into physical theories; a behaviourist may be led by his ontology to try to avoid talking about the There is a tendency to pass from saying Unconscious. that a certain object or class of objects does not exist to trying to dispense with the expressions that appear to Ouine himself would like to forgo making mention them. statements in which the bound variables have abstract entities for values, except when he can prove their innocence by finding a method of translating them. But are such purists justified? Or are their opponents justified allowing themselves a greater latitude? The trouble with these questions is that there are no agreed criteria by reference to which they can be settled. If the purist wishes to deny himself the use of certain symbols, then let him do so: it will be interesting to see how well he manages without them. Those who decide to retain them will consider it a sufficient justification that they perform the function that they do. But there is no way of justifying their retention other than describing the use to which they are put. And if someone, in a given case, considers that

this justification is not sufficient, I do not know what more is to be said.

This shows, I think, how we should deal with such questions as "What right have we to assume that nothing exists except what can be experienced?" If we have settled our usage of the term "exists" in such a way that nothing which is not capable of being experienced can properly be said to exist, then our ground for making the statement that nothing exists except what can be experienced will be that it is necessarily true. But, of course, it is open to anyone to adopt a different convention. If he is allowed to use symbols which do not apply to anything observable, he may also be allowed to say that what those symbols stand for nevertheless exists. It may be that in so doing he will come to use the word "exist" in ways that are not sanctioned by ordinary usage, but that is objectionable only to the extent that it makes it likely that he will be misunderstood. The important question is not whether he chooses to say that his symbols stand for something, or even whether he chooses to say that the things which his symbols stand for exist, but how he uses these symbols. If there is a point in saying that only what can be experienced exists, a statement which is itself not wholly in conformity with ordinary usage, it is to lay down conditions for the legitimacy of descriptive expressions: we are to admit only such expressions as apply directly or indirectly to what can be experienced. A query may then be raised about the justification of this procedure. But that is a matter into which I shall not enter here.

It is tempting to dismiss all talk about ontology as being merely a question of how we use, or how we propose to use, such expressions as "is real" or "exists" or "there is". But, while I do not wish to say that this procedure is incorrect, I think that there are cases in which it somewhat misses the point. It is true that such a question as "Are there numbers?" appears strange. We do not normally speak of there being or not being numbers without qualification, but only of there being or not being numbers which fulfil such and such conditions, for example, the condition of

lying within a certain range of integers and being a prime. And it is true that when we speak in this way of there being numbers we do not take ourselves to be implying that they are identical with physical objects, or with other things that we are prepared to say exist. The use in these various contexts of such an expression as "there are" does not in practice lead to misunderstanding. But it is not to be supposed that those who raise questions about the being of numbers would deny any of this. Their problem is not that they are baffled by, nor even fretful about, the use of ontological phrases. Is is that they find numbers themselves mysterious. They see that numbers cannot simply be identified with numerals, and so they take to wondering what sort of things they are. The pharasaical answer that numbers are numbers is not likely to set their minds at rest. What is required, I think, is to show how knowing what a number is comes down to knowing how to operate with The statement that there are numerals but there are no numbers is literally false; but it is interesting in so far as it heralds an attempt to explain things that are apt to puzzle us; what is meant, for example, by saying that mathematical propositions are necessary, or how discovery is possible in mathematics as well as invention. In general, I think it may be said that the interest of an entological dispute lies in someone's denying that something The denial of being is, in philosophy, the prelude to an explanation: the affirmation of being more often a refusal to provide one.

I agree with Quine, as against Geach, that one's ontology is to some extent at least a matter of choice. I do not know why Geach supposes that "certain concepts like existence and truth and thing and property are inevitably used in all rational discourse whatsoever". To take only one example, it seems to me that, instead of talking about things and properties we might very well talk about predicates having application. Moreover, even if Geach were able to show that all those who did not share his ontology were muddled in their analyses of the concept of "existence", it would not follow that their conceptual schemes were

illegitimate or even in any way defective. There are, for example, various criteria for deciding whether a conceptual scheme is satisfactory in physics: but the physicists ability to philosophize about existence is not among them.

The only restrictions that I would put upon out choice of predicates is that the making of some observation must count as a test for their being satisfied: for otherwise I do not see how they are to be understood. With regard to basic predicates, it might be suggested that while there were an indefinite number of alternative schemes available, one was superior to the others in as much as it permitted us to give a more complete description of the facts. But here we meet with the difficulty that what is counted as a fact depends in part upon our conceptual scheme. be said, I think, is that a scheme A is superior to another scheme B if to everything describable in B as a fact there corresponds something describable in A as a fact, but there are descriptions of facts in A to which nothing corresponds in B. But this does not carry us very far.

I conclude, as Quine does, that questions about entology can legitimately be interpreted as questions about the choice of conceptual schemes and about the relationship of their various elements, and that in so far as the adoption of an ontology is simply a matter of choosing a conceptual scheme it is to be attacked or defended on pragmatic grounds. But the tolerance to which this should lead is not always easy to maintain. When Quine and Goodman renounced abstract entities, were they thinking only that it would be more convenient to dispense with statements in which the bound variables took abstract entities for values? there not a suggestion that their reason for renouncing them was that they did not believe in their existence? say, at least, that they found abstract entities mysterious. And in this case also the denial of being was a prelude to an explanation.

III.—By W. V. Quine.

Considering that my paper, "On What There Is," was not an attempt to set forth a new philosophical point of view, but an attempt only to state more clearly various points which had been stated by me or others before, it is dreary to contemplate the degree to which I must in this rejoinder concern myself with misunderstandings.

Mr. Geach says that I fail "to make a sharp distinction between an expression that stands for, and a predicate that applies to, a thing". I protest that I draw exactly the distinction which he presumably has in mind; that I attach much importance to it; and that I draw it in terms of an explicit terminology to which I adhere throughout the paper. This terminology corresponds, moreover, exactly to Mr. Geach's; it differs from it only in spelling and pronunciation. Standing-for is what I call naming. Applying-to is what I call denoting.

I recognize that the word "denotes" is capable nowadays of encouraging misunderstanding. In recognition of this fact I went so far, two years ago, as to go through the manuscript of my book, *Methods of Logic*, and change "denotes" everywhere to "is true of", incidentally inserting this remark:

"In place of the clumsy phrase 'is true of' we may also say 'denotes', in the best sense of this rapidly deteriorating word. But I prefer here to resist the temptation of good usage."

This resolution to avoid the word "denotes" occurred too late for my paper "On What There Is" (1948). But Mr. Geach's misunderstanding is nevertheless hard to fathom, because in "On What There Is" I do explain my use of the word "denotes" and he understands my explanation. Let me quote him further:

"Quine borrows ['keeps' would have been a happier word] the old terminology; he says that, in the statement 'There are red roses', 'roses' denotes

individual roses and 'red' denotes individual red objects. . . . I am sure what he means is that 'red' applies to or is truly predicable of individual red objects."

For this passage I have nothing but praise. What Mr. Geach says he is sure I mean is exactly what I do mean. My "denotes" is his "applies to".

Yet he goes on, in the very next clause, as follows:

"but what he says would naturally lead us to suppose that, in 'There are no dragons', 'dragons' must denote individual dragons—and then we should be entangled in Plato's beard all over again."

Now I wonder what I said that would naturally lead one to suppose anything of the kind. "Red" denotes, or applies to, each red thing and nothing else; denotes, or applies to, each rose and nothing else. There being no dragons, "dragon" denotes, or applies to, nothing whatever. Surely I have nowhere suggested that a general term has to denote, or apply to, something in order to be meaningful. On the contrary, I expressed my disapproval of what I called Plato's beard by arguing, in the case of the singular term "Pegasus", that the term need not succeed in naming in order to be meaningful; and if I did not add correspondingly that a general term such as "dragon" need not succeed in denoting, or applying, in order to be meaningful, it was because I assumed that in the case of general terms, unlike that of singular terms, nobody would suppose otherwise.

Of the rest of Mr. Geach's paper, a good half is evidently motivated by his having read into my remarks some curious conception of bound variables as quasi-names. Most of what he says regarding the difference between variables and names is right, in my view, and some of it, as he mentions, is borrowed from one of my own books. But what seems to be troubling him is an apprehension that in my paper "On What There Is" I am giving variables somewhat the status of names. Let me, then, allay this misapprehension. I have nowhere spoken of bound variables as naming; I have nowhere spoken of them even as applying.

Peano rightly observed 54 years ago that variables are mere notational adjuncts of quantification used for cross-reference. Mr. Geach has spoken of my 1940 account of variables as typographically convenient variants of a notation in which the cross-references to quantifiers are accomplished by vincula. He favours this doctrine, and I still hold it myself. For me variables partake in no way of extra-linguistic reference, except in the indirect sense of being integral parts of a notation of quantification which as a whole has a peculiar extra-linguistic import.

Now let us turn to the positive side: what is the extralinguistic import of a notation of quantification? Quantification is a device for saying that every entity in the chosen universe is thus and so, or that some entities of the chosen universe are thus and so. The truth value of a quantification depends in general not only upon the particular import of the open sentence to which the quantifier is attached, but also upon the particular choice of universe relative to which our quantifiers are construed. The universe which we happen to choose in construing our quantifiers is called the range of values of the variables of quantification, and the entities in that universe are called the values of the variables of quantification; this is a technical cliché of mathematics which has outlived the metaphor of its inception, and means no more than I have just described it as meaning. When Mr. Geach objects by saying:

"We can . . . no more ascribe a 'range of values' . . . to 'x' and 'y' than to the vinculum . . . that might take their place,"

my reply is just this: We may indeed ascribe a range of values to the vinculum in precisely the same spirit. There is nothing absurd about this use of the mathematical term "value of a variable", or "range of values", because these are technical terms of mathematics having precisely these uses and carrying, for the understanding mind, no further connotations whatever. I recognize no more affinity between variables and names than Mr. Geach does.

So Mr. Geach has devoted some five pages'to defending,

supposedly in disagreement with me, a doctrine of variables which I share. His motivation is, perhaps, summed up in this sentence:

"However much Quine may wish to eliminate names, he is assuredly wrong in thinking variables can take over from names the job of referring to objects."

Now I have never maintained that variables could simply be used instead of names and in place of names. My doctrine on this matter consists rather of the following three points.

- (A) Even when free use is made of names, or singular terms, there are statements in which we affirm existence of objects without help of singular terms. One is "There are such things as dogs", or, in the notation of quantification:
 - (1) $(\exists x)$ (x is a dog).

Another is Mr. Geach's own example, "A dog was chasing my cat", or, in the notation of quantification:

(2) $(\exists x)$ (x is a dog: x was chasing my cat).

These statements commit the man who affirms them to countenancing at least one dog, not because a singular term occurs which names a dog, but because the statements will not be true unless the universe appealed to in construing the quantifier contains at least one dog.

(B) Even statements containing singular terms do not always commit the man who affirms them to countenancing an entity named by the term. An example, of which I have said much, is:

There is no such thing as Pegasus.

Moreover, a statement may contain a word like "red", which one disputant views as a singular term, a name of a colour, while the other does not; and in such a case to cite singular terms as evidence of ontological commitment is question-begging.

Because of points (A) and (B), I have urged that to settle the question of the ontological commitments of a given discourse we must look not to the alleged singular

terms but to the demands which are put upon the ranges of values of the variables of quantification; *i.e.*, to the demands which are put upon the universe which one appeals to in construing the quantifiers.

To clinch this moral I also made a third point, (C): Singular terms are not theoretically needed at all, being theoretically eliminable. Mr. Geach comments on point (C) as follows:

"Quine thinks he is in duty bound to show . . . that all ostensible names can be turned into predicates; he uncritically adopts an extreme form of Russell's Theory of Descriptions. . . . I need not discuss the value of such translations, for later on Quine himself admits that names are 'immaterial to the ontological issue'."

First I should like to register a minor protest against the phrase "he uncritically adopts an extreme form of Russell's Theory". For I critically invented this extension of Russell's Theory in writing Mathematical Logic twelve years ago, and have not yet succeeded in persuading Lord Russell to accept it. Second, I am brought up short by the phrase "Quine himself admits"; for, far from being reluctant to recognise that names are immaterial to the ontological issue, it was my desire to persuade readers of precisely this important and unobvious point that prompted me to establish the eliminability of singular terms. If I could have depended upon all readers to admit as readily as Mr. Geach that names are immaterial to the ontological issue, I should have omitted the topic of eliminability of singular terms.

Actually, I wonder whether Mr. Geach does appreciate, as fully as I could wish, that the naming relation can be extruded from the ontological issue. My own position, first and last, is that the ontological presuppositions of a doctrine comprise all and only those objects which must, in order that the doctrine be true, be in the universe with respect to which the quantifiers are construed. But Mr. Geach feels he needs a basic distinction between such an

expression as "a dog" used namingly and the same expression used predicatively. He says that in the statement "Jemima is not a dog" the expression "a dog" occurs predicatively and "does not stand for any dog or dogs"; and, as an example of the opposite kind, he cites "a dog" in "A dog chased my cat". He thinks he needs this distinction in order to separate those statements which carry existential import from those which do not. He sets his problem thus:

"For example, if I say 'dragons do not exist'...
my use of the predicate 'does not exist' requires that
the term 'dragons' should have nothing to stand for;
but in that case my assertion is empty, for there is
nothing for me to make it about.

Then, having distinguished between predicative and non-predicative use of general terms, he concludes:

"But 'dragon' is used predicatively in 'a dragon does not exist', so no question arises which dragon we are referring to, and the apparent inconsistency vanishes."

Mr. Geach's segregation of a non-predicative, referential use of general terms, exemplified by "a dog" in "A dog chased my cat", might have had a place in the prequantificational age of Aquinas, when the logic behind the complexities of our everyday use of indefinite articles and general terms was so much more puzzling than it need be once the concept of quantification is at hand; but there is no evident occasion any longer, at least in some contexts, to view a general term as somehow having to refer. But I disagree with Mr. Geach in the narrowness with which he restricts this salutary conception. I disagree that "a dog" in the context "A dog was chasing my cat" should be given any different status.

Seen in terms of quantification, the statement "A dog was chasing my cat" implies there are dogs not because it uses "a dog" non-predicatively to stand for some dog or other, but because it has the form (2), which logically implies (1). The predicate or general term "is a dog" is

no less predicative in this context than in the context "Jemima is not a dog".

(3) \sim (Jemima is a dog),

or than the predicate "is a dragon" in "There are no dragons".

(4)
$$\sim$$
 ($\Im x$) (x is a dragon).

The contrast in existential import between (1) or (2), on the one hand, and (3) and (4), on the other, is to be traced not to differences in the sense in which a general term is taken, but rather to the manner in which quantification is brought to bear.

Note, incidentally, that the distinction between predicative and non-predicative use of general terms to which Mr. Geach appeals is not merely needless for the purpose of separating existential from non-existential import; it is also wrong for the purpose. For, if "is a dragon" occurs predicatively in the denial that there are dragons, surely "is a dog" occurs similarly in the affirmation that there are dogs.

I do agree heartily with Mr. Geach when he refuses, at least in some contexts (his predicative ones), to view a general term as having to refer. But I regret the narrowness with which he restricts this salutary conception. I view all the occurrences of "is a dog" or "is a dragon", throughout (1)-(4), in the same light.

I wonder whether, understanding my paper, Mr. Geach would have felt that any problem remained unsolved whose solution could possibly be advanced by this special doctrine of his which I have just now finished criticizing. I also am puzzled about the utility and motivation of a second special doctrine which he puts forward, namely, that quantification is a second-level predicate. He elucidates this doctrine as follows:

"A first-level predicate can be attached to a name, in order to make an assertion about that which the name stands for; a second-level predicate can be attached to such a first-level predicate in order to make an assertion about that which it stands for.

"Quine's misunderstanding of second-level predicates arises from his unwillingness to admit that first-level predicates do stand for anything."

This doctrine is, as Mr. Geach remarks, to be found in Freage. It is also espoused in my own first book (1934). But neither of these circumstances counts in favour of the doctrine, and Mr. Geach also says nothing to raise the doctrine above the level of a bare pronunciamento. Surely we can understand quantifiers perfectly well with or without classifying them as predicates which make assertions about that which first-level predicates stand for. Nothing is achieved by this move except the creation of an opportunity to talk of first-level predicates as standing for something.

Mr. Geach betrays some qualms about his resolution to treat first-level predicates as standing for something. He betrays his qualms, moreover, in a curious way. He says:

"Quine persistently gives the problem a wrong twist by using the verb 'name' instead of my 'stand for'. It is odd, and perhaps misleading, to say predicates *name* something."

Now let me apologize for having used the verb "name" instead of Mr. Geach's "stand for". At the time of writing "On What There Is" I did not have Mr. Geach's usage before me. Even having it, I might have scrupled to adopt it, because "stand for" already has some currency and utility in a non-referential, intra-linguistic sense: abbreviations are often said to stand for their expansions, for example, and schematic statement letters "p", "q", etc., are often said to stand for statements. However, let me now waive these scruples and adopt Mr. Geach's "stand for".

But I am struck by an analogy between Mr. Geach's verbal manœuvre and that of the supposititious Wyman, who, as represented in my paper "On What There Is", helped to ruin the good old word "exist". Let me quote myself:

"Wyman, in an ill-conceived effort to appear agreeable, genially grants us the non-existence of Pegasus and then, contrary to what we meant by non-existence of Pegasus, insists that Pegasus is. Existence is one thing, he says, and subsistence is another. The only way I know of coping with this obfuscation of issues is to give Wyman the word 'exist'. I'll try not to use it again; I still have 'is'".

Now Mr. Geach, in parallel fashion, is saying in effect that first-level predicates do not indeed name anything, but they do stand for something. So I propose to give Mr. Geach the verb "name". He still allows me the verb "stand for", and I will gladly consider "On What There Is" revoked and rewritten, for present purposes, to precisely the extent of putting "stand for" in place of the verb "name" everywhere. Nowhere in that paper are there acceptations or repudiations, expressed or implied, that hinge upon any special connotations of the verb "name" as against "stand for".

In defence of his notion that predicates stand for something, Mr. Geach says this:

"Whatever 'redness' may or may not stand for, the predicate 'red' certainly stands for something. If A and B are both red, then there is something that they both are, and 'red' stands for this."

But this assertion is substantially one which I put into McX's mouth in "On What There Is." I hesitate here to repeat the full page with which I followed up McX's remark; and I know no way to rewrite that page more effectively. So let me merely remark the respect in which Mr. Geach's assertion differs from McX's: McX said that redness was what A and B both had; Mr. Geach says that red (or the entity which "red" stands for) is what A and B both are. Thus Mr. Geach takes the further step, beyond McX, of treating predicates themselves and not merely the corresponding abstract singular terms, as standing for entities. This step is gratuitous even granted a predilection for abstract entities. The most thoroughgoing Platonist can, without cramping his ontology, depend on abstract singular terms like "redness" and "mankind" to stand for his

abstract entities; there is never any need to press "is red" and "is a man" into such service. I wish Mr. Geach would adhere to the policy, vigorously espoused, indeed, by himself in a partial form, of limiting the function of a general term or predicate to that of applying to many things or one or none. The advantage of this policy is not that it defeats Platonism, for it does not; but that it quarantines any doctrine of universals, confining it to contexts where it is decisive.

Mr. Geach's next remark is right. He says:

"Quine thinks that if I say A and B both are something, viz., 'red', this commits me to recognizing two sorts of entities: concrete entities like A and B, and abstract or universal entities like what A and B both are."

But then he embarks on an analogy the upshot of which is evidently intended to be that it is meaningless to apply the inclusive term "entity" simultaneously to particulars and to whatever it is that words like "red" stand for. Mr. Geach is impelled here by something like the Theory of Types. Now I do not take the Theory of Types as much to heart as Mr. Geach apparently does; for I see it merely as one of various alternative artificial devices, and, perhaps, indeed the least convenient of known devices, for avoiding the paradoxes of set theory. But it would be a mistake to let the present issue turn on acceptance or rejection of the Theory of Types, and accordingly I am prepared to embrace the Theory of Types for the space of the present argument. The fact remains that Mr. Geach is recognizing concreteentities, e.g., A and B, and abstract-entities like what A and B both "are". This fact remains, and remains meaningfully expressible, even though we accept a Theory of Types which forbids the word "entities" without qualifying adjective.

I have not said in "On What There Is", and I am not saying now, that it is wrong to admit abstract entities. But it is wrong to admit abstract entities and gloss over their admission. It was because I was persuaded of the wrongness

of this latter course that I undertook to sharpen the standards whereby we judge whether or not a given discourse does carry commitment to entities of a given sort. My standard suffices for doctrines expressed in quantificational language. and it is, I repeat, simply this: the entities presupposed by a doctrine are those which must, in order that the doctrine be true, be in the universe with respect to which the quantifiers are construed. With obvious elaboration, my standard carries over to languages which, like Mr. Geach's presumably, suppose type differences and use different styles of variables for the different types. Then we may say: for each style of variables, the entities presupposed by a doctrine are those which, in order that the doctrine be true, must be in the universe with respect to which the quantifiers containing that style of variables are construed.

So much for the question of deciding what the ontological commitments of a doctrine may be. There remains the question what there is, or, perhaps better, what ontological commitments to allow ourselves in our own discourse. The question is, in other words, what to admit into the universe or universes appropriated to the interpretation of our quantifiers. I think this question, like any question concerning the broadest features of our scientific schematism, has to be settled pragmatically. I gather from Mr. Geach's concluding remarks that he thinks it is to be settled dialectically:

"What you must do, as Aquinas pointed out, is to pick holes in [your opponent's] arguments."

Now I agree that it is a fine thing to pick holes in arguments as long as there are holes to pick. But the question in my mind is whether there are an ontology Ω and an argument α , discovered or undiscovered to date, such that α establishes Ω , and α has no holes in it, and all arguments, discovered or undiscovered to date, which establish ontologies other than Ω do have holes in them. If there are such an α and Ω , then I agree with Mr. Geach that the facts of ontology are precisely Ω . But I believe there are no such α and Ω , discovered or undiscovered.

Failing such an α and Ω , Mr. Geach has given us no alternative to my own unsatisfactory remarks on the ontological question. Pick holes, yes; but, failing α and Ω , there remain either various ontologies with equally imperforate arguments to support them, or else no imperforately justifiable ontologies at all. We are then thrown back on pragmatic considerations, or other considerations as yet unproposed, for deciding what to admit as values of our variables. Excuse me; for deciding what to admit into the universe or universes appropriated to the interpretation of our quantifiers.