

Maritain and Vienna, Quine, Geach and Kripke:
Comments on Maritain's Unpublished Text on Major Logic

(Editorial Note: This document was created using voice recognition software, which is inherently imperfect. Years later, I edited it, but could not correct every mistaken recognition. So I identified them with a question mark in parentheses '(?)'. Page references are to vol. V of Maritain's complete works, which contains this text.)

In his text on major logic, p. 678, top of the page, he describes major logic as dealing with the general conditions of the materials employed by the mind. This description is reminiscent of his of description of chapter two of the degrees of knowledge, description that appears of the beginning of chapter 4, as being from the point of view of the general theoretician of the sciences. By the general theory of the sciences he must mean major logic. There is another reference to the general theory of science at the end of the first paragraph on p. 684.

P. 682 shows that he has by this time become familiar with the Vienna Circle, something he had not done at the time of the degrees of knowledge. This explains tone of his statements at the bottom of p. 683 and the top of 684. Taken in isolation those statements could be interpreted very instrumentally. But almost all the other statements in this text reinforce the interpretation of the symbolic character of science from the degrees of knowledge, rather than his occasional later statements in which he tries to emphasize how close this theory is to that of the Vienna's Circle.

Note the description of nominal definition in the last paragraph on p. 684. Notice especially the use of the verb "to fix." That makes his description of nominal definition sound almost exactly like Kripke's description of reference. Note also that a nominal definition doesn't

just tell us how a word is used but lets us know what things the word is used for.

With reference to scientific realism, the paragraph that begins on p. 686 and the paragraph following seem to say that modern science sometimes achieved the kind of "all applied" (? , check the French) perfection that he is talking about in that context.

P. 689 affirms a kind of scientific realism. Against positivism he says that science does seek efficient causes. And he says that science's concept of cause is "first of all" (? , check the French) directly ontological significant, implying that it is not purged of indirect ontological significance.

Very interestingly he goes from this latter statement to an apparent explanation of why science must uses being of reason. Why it must is one of the questions not very well answered in the degrees of knowledge. He gives one answer here.

P. 690 "is to all" (?) affirmation that the idea of the cause is always there, even if it is disguised. Note two interesting things in the last paragraph. In the first sentence he said his there is in reality a necessity of which the reason is not given to us. Notice how similar that statement is, that description is, to Kripke's necessary truths that are not epistemically necessary.

And in the last sentence he says that the law is a substitute for the cause. But are not be the entities of reason postulated in theories also substitutes for real causes? The answer must be that both are substitutes but in different ways.

In the same paragraph but on the next page, notice the parenthetical remark about only

being able to suppose the reason of being. This phrase reminds me of my questions about why can't we guess the true nature, even if it is hidden from us. Notice also that the example of the law of the gases is the same example that Salmon quotes Hempel as citing as a scientific law that is not a causal law.

And for scientific realism see the next paragraph on p. 691. He says that sometimes it is possible to pass with certitude from the law to the cause and gives some examples. He follows this with another statement about our being able to suppose the real cause. Next while he is still talking about laws, he says they give us a symbolic knowledge of causes. Is this a third use of the word symbolic, in addition to the two that I discussed above? Next he quotes Leibniz as talking about blind knowledge of the cause. Check out the context of Leibniz statements. Finally noticed the comparison of empirical knowledge of causes to Plato's cave. No matter how blurred, it is still a way, a manner, of knowing causes.

On p. 692 notice the interesting statement in the last sentence of the first paragraph that statistical laws are successors of ontological causes to the second degree.

In the third paragraph on that p. he says that empirical science participates in the definition of science with a certain diminution. In other words science constitutes an analogical set as predicated of these two kinds of science. And in the last sentence of that paragraph near the end uses the word symbolic the way he had used it on p. 691.

At the top of p. 694 he explicitly states that the mathematical formal cause by which a scientist may argue can be a real formal cause. Again, scientific realism. And again he refers to the law of gases in a causal context as the end of that paragraph.

On p. 695 at the end of section seven, he promises to discuss the important distinction between common and proper causes. Maybe we should look in Garrigou-Lagrange to see what Maritain might have in mind here.

It might be worth examining what he means by the force of penetration as opposed to the manner of knowing on the top of p. 696.

On the middle of p. 700 he again uses language with an analogical set since in one case the predication is that shading off on an "inferior plane" (? , check the French) of what is predicated in the other case. And the very next sentence strongly resembles Quine on truth in two-ways. First it referred to the effect of one sentence on the whole ensemble of scientific sentences. Second it refers to something that looks very much like Quine's eternal sentence. And the last sentence on that p. makes another strong affirmation relative to scientific realism.

The first paragraph on p. 701 again affirms the genuinely scientific character of modern science.

On p. 702, the first paragraph of section 90, he comes very close to denying that there can be protocol sentences.

At the top of p. 703 there is the first of many statements relative to problems of quantification and reference in modern logic. What he says here amounts to a denial that the truth of a universal implies that truth of a singular. It only implies that truth of a particular bearing on possible existence, as he says in formal logic.

Concerning the note 15 that the bottom of p. 703 when he talks about mathematical existence and then equates it with being mathematically thinkable, that is, when he equates mathematical existence with being mathematically thinkable, he is talking about intentional existence not the similitude of a real existence or substitute for real existence that we assert when we quantify over mathematical objects. This is a point I make toward the end of chapter 5 of causal realism. Actually, by mathematically thinkable he means potentially having mathematical existence, where mathematical existence means to exist as the object of a certain kind of knowledge, in other words to have a certain kind of intentional existence. That is the point of his clever argument in that footnotes to the effect that, if it were a matter of being mathematically thinkable, the hypothetical statement would become categorical.

At the bottom of p. 724 and the top of p. 725 he again affirms that modern science is a manner, a way, of knowing these intelligible structures in things. So the fact that modern science uses substitutes for essence and cause does not mean that it is not a way of knowing essence and cause. And note again his use of the word symbolic. At the bottom of p. 725 uses the word Sign as he often does when speaking of modern science. What kind of sign does you have in mind? He must mean a an instrumental sign that is also a natural sign as smoke is a natural sign of fire.

In the middle of p. 726 uses Newton's law of gravity as an example of how science knows causes. This is a very interesting example because he describes it as a way of knowing by means of the formal cause or a formal cause. The scientist "a chain's" (?) the mathematical formal cause of the appearances whose regularity he has established. But before the law of gravity, there already was a kind of knowledge by formal cause of the motions of the planets. Kepler had established that. But that knowledge was knowledge of an effect, not of

the cause, described by a mathematical formal cause. The law of gravity as another kind of knowledge by mathematical formal cause, knowledge of the cause of that effect. This second kind of knowledge consists of more than knowledge of that mathematical formal cause which is the inverse square relation. The law of gravity also refers to the mass. So it makes a reference to something not mathematical, mass. The mass here is described quantitatively. Is this a kind of quantitative description by mathematical formal cause?

On p. 730 the first paragraph noticed the reason he gives why people mistake history for a science. It is that history is capable of causing agreement among minds in so many cases. Where in causal realism do I say or imply that fact of causing long-standing agreement among experts is the only empirical evidence for the fallacy that scientific methods are the only methods that can lead us to truth. It is that empirical fact that empiricists are thinking of and relying on when they divinize modern science. I believe place where I refer to this is in the last section of chapter 6. But the fact of causing long-standing agreement among experts is evidence for no more than that, as Maritain implies. To the fact of causing long-standing agreement among experts we might add the fact of being able to cause experts to change their views in the same ways. This would respond to the objection that sometimes theologians appear to be able to achieve long-standing agreement, although actually this is only an appearance.

On p. 731 the last paragraph, notice that essence is the reason of being of the stable relations science deals with both in the sense of the stable relations science formulates between the elements of phenomena and the stable relations formulated by science in the sense of the stable relations in what it constructs on the foundation of the phenomena, on the foundation of the stable relations between phenomena.

On p. 732 the last paragraph, notice how he uses the thing/object distinction to express the difference between the necessities that science deals with and the contingencies of existing singulars. This is another confirmation of my way of defending Maritain, in my thing/object article, about metaphysics dealing with possible existence. When you are talking about the necessary truths that science deals with, you are talking about things as object of science, not about things as things.

On p. 7 to be for (734?) the second paragraph, he gives an example of what he would call Dianoetic knowledge. Jim is fallible because jim is a human being. This example, like many of the other examples he gives, man is political, man has free choice, human beings are mortal, human beings are risible, etc., is not explicitly ontological. So perhaps I put too much weight on ontological analysis when I tried to explain why we cannot guess at the truth about the natures of things when those natures are hidden from us. One of the reasons I give is that the guess would have to consist of an ontological analysis, and ontological concepts cannot get as close to the details of things. But perhaps I do not put too much weight on ontological analysis here. To defend any of these examples by argument, you would immediately or very, very soon have to get into ontological analysis.

At the bottom of p. 735 noticed the difference between scientific explanation by causes and historical explanation by causes. Relate this to the analysts' discussions of the historical explanation, especially the discussions surrounding Carl Hempel's work on this subject.

P. 736 where the full fledged discussions of existence in relation to knowledge begins. There are several things to keep in mind to appreciate what he's doing here. Consider the problem of so-called quantification in modern logic. In my article on contradictions, I show that the use of formal methods is a tool of logic but does not constitute logical knowledge.

That statement applies to the way modern logic handles existence, although the contradiction article does not develop this point. It is developed implicitly in the articles on Wittgenstein and Maritain, Wittgenstein and Aquinas and in chapter five of causal realism.

The way a modern logic uses existential quantification and universal quantification, or rather than way it uses the symbols for these things, is an intrinsic feature of a tool that modern logic uses, but not an intrinsic feature of logical knowledge. For example, in her book on the Tractatus, Anscombe makes the absolute claim that the argument function analysis gives the essence of proposition. But in methods of logic, at least the fourth edition, Quine just as easily denies this claim. Furthermore paradoxes occur in modern logic that do not arise from the nature of existence or the nature of our knowledge of existence but from quantification as a means of symbolizing that knowledge. I am not just thinking of the paradoxes associated with the theory of types or of Platonism and nominalism in the modern, misleading senses of those terms. I am also thinking of the paradox that appears on p. 184 of the fourth edition of methods of logic, a paradox which is strictly an artifact of a tool of logic, namely, the rules of quantification.

Another problem to keep in mind is Geach's critique of supposition in reference and generality. That critique is based on interpreting sentences using a quantification in terms of sentences using proper names of individuals. Maritain's theory of supposition, a theory which he in effect develops further here, does not fit that interpretation. Not only does he interpret quantification in terms of a vague individual, but by that individual being only be a possibly existing individual, as Maritain says in formal logic.

On p. 738 there is good material for a reply to those who, probably influenced by Gilson, like to quote Maritain talking about the metaphysician chasing essences. Joe Evans pointed

out that in those sentences Maritain was hardly speaking formalissime. In any case the statement about the "bytes" ('types' ?, check the French) of Platonism about two-thirds of the way down the p. 738 should silence the critics. In the same spirit see footnote 50 on p. 739 where he talks about the equivocal character of calling necessary truths about existence essential. It is almost as if he was replying to the Gilson in advance. And see the second paragraph on p. 740. (And is there anything wrong with describing the search for necessary truths about existence the search for truths treating existence as an object to be known the way essences are, "essential" knowledge about existence?)

Note that in the last sentence of that second paragraph he uses the word 'constanter' in the sense of to verify. This becomes important in a few pages.

At the top of p. 741 he described the possible existence attained in scientific judgment about existence as atemporal. That is exactly what I imply in my thing/object article where I've used the example of whether or not a statement will still be true next Tuesday.

The statements at the bottom of p. 741 and the top of p. 742 bear directly on the Geach's critique of supposition. If he seems to saying here that the existence of the vague individual is actual rather than possible existence, don't forget the section in formal logic, after the discussions of the syllogism, where he replies to problems concerning existence. The reason he wants to call that existence actual here is that he is leading up to a discussion of two problems from Aquinas. Each problem is other than the problem of supposition. It is not the problem of supposition that requires actual existence here. The first is a problem which he describes in the middle of p. 742 as concerning the integrity of human knowledge, citing some proof texts from Aquinas. The argument Aquinas gives there, at least as cited by Maritain here, I mean the argument concerning sleep, concerns

the psychological conditions for human knowledge, not its logical properties, like supposition.

He looks to those texts of Aquinas for aid in solving the second problem. Those texts gave him an idea he needed to solve a problem that he dodged in the Degrees of Knowledge. This is the problem I described in the note 2 of my article Maritain's views on the philosophy of nature, on p. 216 of Henley's edition of the conference seminar on Jacques Maritain's the degrees of knowledge. Maritain found a phrase in Aquinas that he felt obligated to account for. But "the foregoing" ('he foregoes?') any further notice that the phrase occurs in Aquinas only because he found it in Boethius and so felt obligated to account for it. It is very hard to do philosophy. It is even harder if you try to do it by way of commenting on a text. But here Maritain is trying to do philosophy by commenting on a text that is itself a commentary on another text. The difficulty is compounded geometrically.

As I point out in the footnote, Maritain's solution in the degrees of knowledge leaves something to be desired. P.s 744 and following of the essay on major logic is proof that Maritain thought so too. These pages amount to the analysis he should have given in the degrees of knowledge. And the only reason he spent so much time on this otherwise secondary point must be that he realizes he has to do something about the way he left the problem in the degrees of knowledge.

I am also pleased to point out that the solution I suggest in the footnote is basically the solution Maritain himself came up with here.

At the bottom of p. 744 he makes reference to following the remarks that had just been recalled (? , check the French). The context shows that the remarks he's referring to are the

remarks about Aquinas on the integrity of human knowledge required in sensory awareness of actual existence. On the top of p. 745, he refers to the existential verification of scientific judgment. This distinguishes his views of 'verification' here from the unusual use he makes of it in those sections of the degrees of knowledge that my footnote refers to. He has already said on p. 741 and I think elsewhere that the existential aspect of scientific judgment is secondary and material relative to what a scientific judgment is of itself and formally, namely, bearing on the necessary, the universal, and the possibly existing. So it is only that secondary and material aspect that he means his use of 'verification' to apply to.

Next in the middle of p. 745, he refers to the place of the verification of judgment saying that it is the place where by means proper to science the truth of the judgment is demonstrated. So he is not talking about the means of demonstrating, in other words the means of scientifically verifying. He is talking about the existential place of verification. In the last sentence on p. 745, he says that by the verification or the realization of judgment in the sensible or imaginable he does not mean the method of demonstration but a limit or 'they are ear of the universe in the guide' (? , check the French) to these two kinds of knowledge. Perhaps the best way to understand this is by contrasting these two kinds of knowledge to metaphysics, which he also has in mind here. The truths of metaphysics, or I should say the use of the truths that metaphysics knows, is not limited to the sensible world or the world of imagination. But the sensible world constitutes a barrier beyond which the judgment of physical knowledge have no value. But the directly or indirectly imaginable constitutes a limit be on which the proposition of mathematics have no value.

Perhaps another way of saying it is that propositions of physical knowledge are verified for the sensible or physical world only. The propositions of mathematics are verified for the world of the directly or indirectly imaginable. The place of demonstration, in other words, is

the zone of reality for which a proposition is true. And that is what I mean by the ontological aspect of the judgment in my footnote, namely, the zone of reality to which a proposition conforms.

On p. 746 he may seem to fall back into the problem that he had in the degrees knowledge. About a quarter of the way down he says that the affirmation of metaphysics do not rely on the "constations" of experience. That word must mean what we ordinarily mean by 'verification.' In the next sentence he says that it is by means of the facts of experience that metaphysics verifies or demonstrates its conclusions. There may be a misprint or words missing from second sentence since its two clauses seem to be intended to contrast with one another, even though there is no adv. (?) warning us of that fact. But we do not need to postulate a printing error to resolve the apparent contradiction. It is clear from the context, both here and on the following pages, that the verification he is talking about in the second sentence is verification of the existential judgment which is included in scientific knowledge in a secondary way and by super abundance.

Starting on p. 751 he says some very interesting things about the relation of empirical science to existence. I believe that one way to appreciate what he is saying is to consider the theory of the philosophy of nature that comes from the river forest school and from Vincent's Smith. They claim that the most essential difference between the philosophy of nature and empirical science is simply that the philosophy of nature is more general. But in what sense are the truths of it takes last general than those of the philosophy of nature? Are not the fundamental laws of physics true of everything in the universe? And if so how are they less general than the truths of philosophy?

The answer is that the truths of philosophy apply to any possible universe, not just this

universe. So the truths of philosophy are not more general because of the way they refer to the actual universe, but only in the sense that they apply to all possible universes while the truths of physics do not. And that is just another way of expressing what Maritain is saying in these pages.

Contrary to initial appearances however Maritain is saying the same things about the truths of science that Kripke says. The opposite appearance may be given by Kripke's idiosyncratic way of speaking about possible worlds. He says for instance that 'gold is a metal' is true in all possible worlds. That may appear to contradict what Maritain says about the truths of science holding for the actual world but not necessarily for all possible worlds. But all Kripke means is that, since the gold is a rigid designator, any universe in which that which we call gold would exist would be a universe in which 'gold is a metal' is true. And Maritain would agree completely. Kripke is not saying that the gold must exist in all possible universes. But Maritain would say that substance must exist in any possible universe, and that since any limited essence does not contain its own perfection, accidents must exist in any possible created universe.

To take another example the laws of motion and that physics finds true of this universe need not be true in every universe in which motion exists. But in every universe in which motion exists it would be true that what ever is moved is moved by another, that motion is the act of what exists in potency in so far as it is still in potency, and so on.

DOK, Page 166, note one: a way to interpret the "where judgments *terminate* problem (the "verification" problem) of chapter two. Where does that which our judgments correspond to exist? Where does that which verifies them exist?

This concludes my comments on Maritain's draft on Major Logic.