

## WHAT WAS CARNAP REJECTING WHEN HE REJECTED METAPHYSICS?

RICHARD CREATH

ON THE EVENING OF APRIL 6, 1922, in Paris, Henri Bergson confronted Albert Einstein on an issue of time. I will get into the details later, but the bottom line was that Bergson thought that by philosophic means he could show that Einstein's theory of relativity, especially the special theory of relativity, was importantly in error. Bergson spoke for twenty minutes; Einstein spoke for only one, and his reply included the seemingly undiplomatic sentence: "There is no philosopher's time."

The "debate" did not end there. Bergson produced a stream of books and papers, as did his students. Einstein fought back, too, but not as frequently. And the debate was not without consequences. Later that same year, Einstein won the Nobel Prize for physics—but not for relativity. He never did win a Nobel for his work on relativity. There were undoubtedly many reasons for the Nobel committee's decision, some better than others. But the controversy with Bergson was among them. In the award speech, the head of the committee, Svante Arrhenius, himself a Nobel Prize winner, said: "It will be no secret that the famous philosopher Bergson in Paris has challenged this [relativity] theory" (Canales 2015, 4). He went on to say that Bergson had shown that relativity "pertains to epistemology" rather than to physics. It was not philosophy's finest hour. Einstein's acceptance speech was about relativity rather than about the photoelectric effect, for which the prize was being awarded. One hundred years later, Einstein's theories of relativity are still doing well, and Einstein's reputation is secure. By contrast, few in the scientific community now take Bergson's views on physics seriously. That hardly shows that Einstein was right and Bergson wrong. But the longer-term success of

Einstein's views tends to disguise to us the fact that at the time real damage was done.

Rudolf Carnap rejected metaphysics utterly and completely, and Bergson was one of the few philosophers whom Carnap mentions by name as a metaphysician of the sort that he rejected (Carnap 1928/1967, 295; 1932/1959, 80). But Carnap says very little about what it was about Bergson to which he objected. I think Bergson's general view as well as this episode in particular are good examples of what Carnap meant by 'metaphysics.' Why? We'll have to look at Bergson in detail.

It may seem that the answer is obvious: Bergson was a metaphysician doing what metaphysicians do. This, however, is not enough of an answer. It gives the issue a name but provides no content. It seems informative because we know that metaphysics is a familiar branch of philosophy. And indeed, that is what the word 'metaphysics' means—to us. But however paradoxical it may seem, this is not what Carnap was rejecting when he rejected metaphysics, or so I shall argue.

This chapter is that argument. It is composed of three parts: First, I show that there is a significant interpretive problem in determining what Carnap's target was when he rejected metaphysics. That target cannot be what it is typically taken to be. Second, I consider a number of cases that are or might be thought to be metaphysics according to Carnap. Looking at these cases and gauging Carnap's reaction to them will help us articulate what Carnap means by 'metaphysics' and thus what his target was. I will pay particular attention to Bergson, specifically to the few remarks that Carnap makes specifically about Bergson and to the exchange in 1922 between Bergson and Einstein. These are particularly vivid examples of what Carnap means by 'metaphysics'. Finally, I will sketch a way out of the interpretive problem: a conception of what it is to do metaphysics (in the usual sense) without being metaphysical (in Carnap's sense). My thesis in all this is that we can identify what Carnap meant by 'metaphysics' when he rejected it. I do not intend to defend or justify Carnap's stance, only to identify its target.

## 1. THE INTERPRETIVE PROBLEM

As everyone knows, Carnap rejected metaphysics not just as false, sterile, or unknowable but as without cognitive meaning.<sup>1</sup> And it seems that he was rejecting what *we* mean by 'metaphysics'. And what is that? In common philosophical parlance, metaphysics is that branch of philosophy that treats of:

- The most basic features and relations of what is real
- Ontology
- Being qua being
- Necessity
- Such relations as part/whole and causation
- Such systems of relations as space and time

If we interpret Carnap as talking about all this when he rejected metaphysics, and I think that many contemporary readers assume that this is exactly what Carnap means, then we have a huge interpretive problem.<sup>2</sup> If we take Carnap to be rejecting the *field*, that is, the whole subdiscipline of philosophy that we call metaphysics, then we are forced to say that Carnap was rejecting what he himself did. He worked in this field.<sup>3</sup> He has an extended discussion of empirical reality *versus* metaphysical reality in the *Aufbau* (§§ 171–78). His “Empiricism, Semantics, and Ontology” (1950a) is one of the most important twentieth-century papers in the area, and it is still, some seventy years later, actively discussed (cf. Blatti and Lapointe 2016). His book *Meaning and Necessity* (1947) is only one of the many things he wrote on modality. His dissertation (1922/2019) was on space, a topic in which he maintained a lifelong interest. He wrote an introduction to Reichenbach’s *The Philosophy of Space and Time* (1958), and his late philosophy of science book (1966) has an extended discussion of relativist space-time (especially pp. 144–76). There is no avoiding it; Carnap worked in the field of metaphysics and knew perfectly well that he did.

So, if we interpret “metaphysics” in Carnap’s rejection of metaphysics as applying to the field as a whole, then we interpret Carnap as incoherent, that is, as rejecting what he himself is doing and moreover knows he is doing. He would be cutting off the limb on which he sits. Of course, there are those who are perfectly happy to interpret Carnap as babbling incoherently. This saves one the trouble of providing serious arguments against him. If no coherent alternative interpretation can be found, then we might have to rest with this interpretation. But we should not declare that there is no such interpretation of Carnap until we have looked for one.

## 2. CASES

In his well-known essay “Overcoming Metaphysics Through Logical Analysis of Language,” Carnap (1932/1959) more or less takes it for granted that

his readers understand the term *metaphysics* in the same way he does, so he does not clarify the word.<sup>4</sup> In a remark appended to the English translation of 1959, he is more explicit:

*To section 1, "metaphysics."* This term is used in this paper, as usually in Europe, for the field of alleged knowledge of the essence of things which transcends the realm of empirically founded, inductive science. Metaphysics in this sense includes systems like those of Fichte, Schelling, Hegel, Bergson, Heidegger. But it does not include endeavors towards a synthesis and generalization of the results of the various sciences. (Carnap 1932/1959, 80)

Even this needs fleshing out. One way of explicating his usage is to see what he says about specific cases and to see what arguments he uses about either these cases or metaphysics in general. This is the strategy that Carnap himself recommends (cf. 1950b, 37). So in this section of the chapter, we will examine a couple of cases that Carnap definitely thinks of as metaphysical to see both what he says and why he might think of them as objectionable. As a contrast, we will also examine a couple of superficially similar cases that he specifically did not see as metaphysical and why he did not. We will also look at some of Carnap's further general remarks about metaphysics. This should yield both a better, that is, more faithful, interpretation of what Carnap meant by 'metaphysics' and also some understanding of why Carnap rejected metaphysics in his sense.

### 2.1 Mortimer J. Adler

I have already mentioned that Carnap took Bergson to be a prime example of a metaphysician in his sense. I will come back to Bergson in a moment. But first I consider a different case that Carnap discussed, Mortimer J. Adler, because Carnap is explicit there about his objections. Adler was a colleague of Carnap's at the University of Chicago and later became the editor of *The Great Books of the Western World* and of the *Encyclopedia Britannica* and also a mainstay of the Aspen Institute. People will differ in their assessments of his success in these endeavors. Here I look at Carnap's report (1963, 42) of a philosophy department seminar lecture by Adler and also at another lecture by Adler (Adler 1941).

Carnap does not give the date of Adler's department seminar lecture but says this about it:

Adler . . . declared that he could demonstrate on the basis of purely metaphysical principles the impossibility of man's descent from "brute," i.e., subhuman forms of animals. I had of course no objection to someone's challenging a widely accepted scientific theory. What I found startling was rather the kinds of arguments used. They were claimed to provide with complete certainty an answer to the question of the validity or invalidity of a biological theory, without making this answer dependent on those observable facts in biology and paleontology, which are regarded by scientists as relevant and decisive for the theory in question. (Carnap 1963, 42)

Plainly, Carnap is objecting to a conception of philosophy rather than to a branch of philosophy. That way of philosophizing involves making a priori claims about the world that purport to be substantive—in other words, not about the language used or to be used—and to which the empirical science must conform.

The other lecture by Adler is "God and the Professors" of 1940, and it shows a view much like that criticized by Carnap in the previous quote.<sup>5</sup> The paper is a Jeremiad against almost all professors, whether of science or of philosophy, in American academia. He says that almost all of these professors are "positivists" and goes on to hint at views that are like Carnap's or are caricatures of them. Once again, Adler proceeds on an a priori basis to assert the following:

1. "Philosophy is superior to science . . ." because philosophy is ". . . knowledge of the being of things whereas science studies only their phenomenal manifestations . . ." (1941, 129).
2. "There are no systems of philosophy" only the one true one (1941, 129).
3. "Sacred theology is superior to philosophy . . . because it is more perfect knowledge of God and His creatures . . ." (1941, 131).
4. "Just as there are not systems of philosophy, . . . there is only one true religion, less or more embodied in the existing diversity of creeds" (1941, 131).
5. "Because God is its cause, faith is more certain than knowledge resulting from the purely natural action of the human faculties" (1941, 130).
6. "Science, philosophy, and theology cannot really disagree because they have different subject matters" (1941, 128–31).<sup>6</sup>

At the end of the same lecture, Adler (1941, 137–38) welcomes Hitler (this was 1940!) to cleanse America’s universities of their professors. Earlier he had spoken of “liquidating” the professors, scientists and philosophers alike (Adler 1941, 134).

This lecture, “God and the Professors,” clearly illustrates the features that Carnap found objectionable in the department seminar: a priori arguments that supposedly can give substantive results that overturn empirically established theories. If taken seriously, this can harm scientific progress. But I know of no evidence that Adler was taken seriously by anyone in the scientific community. He did have friends in high places, such as University of Chicago president Robert M. Hutchins and the publisher of *Time Magazine*, Henry Luce. Adler had a certain popular following as well. Certainly, inviting Hitler’s armies to make a clean sweep in American academia can hardly be considered science-friendly. Moreover, Adler’s claim that there are not many different systems of philosophy, but only the one true one, hardly squares with the history of philosophy, where there certainly seem to be multiple such systems, all impervious to his arguments. It is precisely such controversies that Carnap sought to sidestep in rejecting Adler’s metaphysical approach and by adopting the principle of tolerance.

## 2.2 Henri Bergson

Henri Bergson is a vastly more influential and subtler philosopher than Mortimer Adler. And unlike Adler, Bergson was interested in what scientists had to say and was, in turn, taken seriously by some in the scientific community, at least at the time. He was also prolific and difficult to analyze. So it is not really possible to look at the full breadth of Bergson’s views.<sup>7</sup> What I can do is highlight a few general threads of those views to which Carnap might and did object. I will then go on to look at two more particular arguments that Bergson raised against Einstein. My aim in all this is not so much to assess the merits of Bergson’s views as to use his example to illuminate what Carnap means by ‘metaphysics’.

Bergson was, at least until the First World War, wildly popular, both in academic circles and outside them. It was thought that perhaps only the Paris Opera could hold the throngs of people who wanted to hear him speak (Gunter 1969, 16). So far, we have seen only that Bergson had some sort of clash with Einstein. Since I think Bergson’s texts are often unclear, let’s begin by looking at a brief passage from his *An Introduction to Metaphysics*:

Now it is easy to see that the ordinary function of positive science is analysis. Positive science works, then, above all with symbols. Even the most concrete of the natural sciences, those concerned with life, confine themselves to the visible form of living things, their organs, and anatomical elements. They make comparisons between these forms, they reduce the more complex to the more simple; in short, they study the workings of life in what is, so to speak, only its visual symbol. If there is any means of possessing a reality absolutely instead of knowing it relatively, of placing oneself within it instead of looking at it from the outside points of view, of having the intuition instead of making the analysis; in short, of seizing it without any expression or symbolic representation—metaphysics is that means. *Metaphysics, then, is the science which claims to dispense with symbols.* (Bergson 1903/2012, 8–9, italics in the original)

Carnap actually quoted from this passage in saying that he, Carnap, is using the term ‘metaphysics’ just as many who claim to be metaphysicians use it:

Other philosophers use the name “metaphysics” for the result of a non-rational, purely intuitive process; this seems to be the more appropriate usage:

REFERENCES. In referring metaphysics to the area of the non-rational, we are in agreement with many metaphysicians. Cf., for example, Bergson ([Metaphysik] 5): “That science that wants to get by without symbols.” This means that metaphysics does not wish to grasp its object by proceeding with concepts, which are symbols, but immediately through intuition. (Carnap 1928/1967, 295)

In identifying the nonconceptual with the nonrational, it may be that Carnap misunderstands the passage from Bergson that he has quoted.<sup>8</sup> But Carnap is saying that he and Bergson are in agreement about what metaphysics is, that they are talking about the same approach to philosophizing (though of course they take different attitudes toward it). In any case, my concern in this chapter is with what Carnap understood himself to be rejecting, so how he saw the matter is what is relevant.

What Bergson suggests is that the mind is divided into two parts. The first is the rational, intellectual, conceptual, analytical side. This is the side

where we find ordinary scientific theories and the ordinary empirical observations on which science is based. The second side of the mind is the nonrational/nonconceptual part. This is the home of philosophical intuition, which is to be a direct and better grasp of how things really are. As we shall see, Bergson holds that the first part of the mind, including science, inevitably distorts that, but philosophical intuition can correct that.

This is not just my (or Carnap's) interpretation of Bergson. One of his more influential defenders, P. A. Y. Gunter (1969, 3–42 and esp. 29ff), says that Bergson holds that science is the product of the analytical intellect, which necessarily distorts reality.<sup>9</sup> Philosophy, however, has its source in the philosophical intuition, namely philosophical insight that is not part of the conceptual world of the intellect. This intuition can correct the distortions of the scientific intellect. As Gunter (1969, 29) puts it, "The intellect, especially the scientific intellect, is for Bergson a pragmatic faculty that, rather than comprehending things, utilizes them, and in utilizing them spatializes, fragments, and materializes them beyond recognition." Later, on the same page, Gunter rephrases this—four times: "intellectual analyses distort reality," "intellectual analysis distorts," "the intellect in most respects fragments, spatializes, and distorts reality," and "intellectual analysis spatializes and distorts reality."

This idea that science distorts, and it is the science of Newton or Darwin or Einstein that is referred to here by the phrase "intellectual analysis," is not the idea that scientific claims are fallible because they can be challenged and replaced by further applications of scientific methods. It is, rather, the idea that science as a whole distorts, even in the long run. These distortions could only be discovered as such because there is a source of knowledge that does not distort and that is thus in a position to correct the errors of science. This source is philosophical intuition, a nonconceptual direct apprehension of the nature of reality.<sup>10</sup>

One persistent theme in Bergson is the visceral conviction that scientific theories and all purely intellectual works are bloodless, abstract things, but the real world pulses with life. This is why the conceptual side of the mind must distort. Bergson's charge that the intellect/science distorts because it is abstract, however, misunderstands what science is supposed to do. Science is not supposed to reproduce the lived experience we have or to reproduce the world more generally. It is supposed to map it, to describe it, correctly one hopes. To say that the map does not turn green in the spring



(Nelson Goodman's phrase) is not to say that the map is incorrect or that the description is thereby a distortion (cf. Goodman 1963, esp. 552–54).

Bergson's antidote to the distortions of science is philosophical intuition. The word 'intuition' has had a long and tortured history in philosophy. In the seventeenth and eighteenth centuries, ordinary observation was called intuition. This was a representation of individuals compared for sameness and difference. In this sense, Kant has the mind turn a manifold of intuitions into an intuition of a manifold. There is also a long tradition of platonic intuition to underwrite mathematics and logic. Gödel appeals to this, as do Russell and Moore. This is usually distinguished from sensory evidence because its objects are not individuals and not in the causal order—in other words, they cannot be observed, even in principle.

Carnap spoke of intuition in his own work only very early (when he is a neo-Kantian discussing visual space) or very late (when intuitions are simply grist for linguistic explications). Carnap would have sharply distinguished Bergson's philosophic intuitions from the ordinary observations on which science relies, as does Bergson. Scientific observation, and more precisely observational judgments, are parts of the rational/symbolic/conceptual universe. And they are probative in science only because they are part of that domain. Bergson's philosophic intuition by contrast has its roots in the non-rational/nonconceptual mind. Carnap can accept that philosophical intuition is "experience" in a suitably broad sense, like a feeling of ennui. He would say it is a subjective attitude toward life. But in this sense, it is not a judgment at all and not one that can help select between two purely descriptive (nonevaluative) accounts of the world. A judgment *that* one is feeling ennui, however, is a perfectly ordinary observation, albeit about the mind. Carnap from day one is interested in intersubjective science and scientific observation, even in the *Aufbau* and before. The track record of intuitions, philosophic and platonic, shows them to be highly subjective and unable to resolve the apparent disagreements that inevitably arise among alternative intuitions. These irresolvable disagreements yield the "wearisome controversies" in philosophy that it is the whole purpose of Carnap's mature philosophy (from 1932 onward) to sidestep.

We have looked so far at Bergson's general view. Now we can turn to look more closely at two general objections that Bergson lodges against Einstein. First, Bergson claims that to treat time as a fourth dimension like that of the three of space is to "spatialize" time by positing a static, block universe in

which nothing ever changes. Einstein is trying to “stop time”—in other words, to bridle the vital, creative forces that are beyond the reach of science. It is hard to see what Bergson even could mean by ‘spatialize’ or what defect is involved. It is likely that Bergson’s claim that according to relativity theory nothing ever changes derives not from Einstein’s treating time as a fourth dimension but rather from his treating it as being composed of points. There is a popular, though I think mistaken, understanding of Zeno’s arrow paradox, according to which at every point, the arrow is not moving within that point.<sup>11</sup> Hence, the arrow is not moving at all. The combination of Zeno’s idea with the idea that time is a series of points would explain the conclusion that in Einstein’s theory nothing ever changes. Bergson’s claim is not clear enough for us to be certain, but it is hard to see what else would explain his conclusion. Of course, the same criticism could be raised just as easily against Newton’s treatment of instantaneous velocity and acceleration. It is hard to see how the objection has any force at all, but Bergson concludes that the basic entities should be processes rather than punctiform events. Moreover, time embodies the vital/living forces that permeate what is real and important and can never be captured by science—because they are creative rather than subject to laws.

What in all this would Carnap object to? Not to Bergson’s process ontology. If scientists want to use a process ontology, that’s fine. If philosophers want to develop rigorously what a process ontology involves, that’s fine too. Does Carnap object that someone might disagree with a scientific theory? No. Does he object to Bergson’s claims that for Einstein nothing ever changes and that Einstein is trying to “stop time”? Carnap would certainly think that these claims are based on misunderstandings of Einstein, but this is not what makes them metaphysics. Would Carnap object to Bergson’s vitalism? Again, Carnap would not object to this if it were developed as an empirical theory or even as a well-worked-out conceptual framework, or at least he would not call either of these approaches to vitalism metaphysics.

Second, Bergson also objects specifically to the relativity of simultaneity embedded in the special theory of relativity. One might argue that present events are real in a way that future events are not yet real and that past events are no longer real. In this sequence of events, then, the “truly real” defines an objective simultaneity class. So Einstein’s physics must be at best about what we know rather than about what is objectively real. This argument about the objectivity of the “now” is not a good argument, though there is some evidence (Carnap 1963, 37f.) that Einstein was bothered by it (not convinced, but bothered).

But this is not the argument that Bergson gave in the 1922 exchange with Einstein. Bergson's prose there is such that it is hard to see exactly what his argument is supposed to be. But he seems to argue that the relativity of simultaneity can be disproved on the basis of perfectly ordinary observations as follows:

1. I can have one experience of two nearby events such as a pair of flashes of light or a pair of notes, call them A and B.
2. Because this one experience is composed of experiences of A and B, my experiences of A and of B are simultaneous.
3. I can represent A and B as absolutely simultaneous, that is, as simultaneous independently of any inertial frame to which the events are measured. (A and B are taken as close to one another spatially but not exactly in the same spatial location.)
4. Therefore, the physical events A and B are absolutely simultaneous.
5. We can imagine a sequence of living beings observing a series of events, each near to the next, such that
  - a. I observe A and B to be absolutely simultaneous, as noted.
  - b. The second conscious being (Bergson suggests a "scientific microbe") observes B and C to be absolutely simultaneous.
  - c. The third conscious being (microbe) observes C and D to be absolutely simultaneous.
  - d. And so on.
6. We can establish on this observational basis that events, however distant from one another, are absolutely simultaneous.

Note that none of the claims here is nonconceptual because claims cannot be nonconceptual. The only way to be wholly nonconceptual is to say nothing. But premises 1 and 3 are about first-person reports. Bergson may well believe that such reports can be underwritten by philosophical intuition. While there are many issues surrounding first-person reports, let's ignore those issues and just grant these premises.

Claims 1–3 are also psychological, that is about mental states—mine. But 4 is about a physical state of affairs. Both Einstein and the third symposiast that day, Henri Piéron, challenged the legitimacy of such an inference in this case. Einstein began by noting the "the philosopher's"—in other words, Bergson's—concept of time is at once both psychological and physical. The former is about perceived time, while the latter is about events that are

independent of us. Einstein took for granted that for perceived time there are no inertial frameworks to which temporal location and simultaneity even could be relativized. Thus, among psychological events there is no distinction to be drawn between absolute and relativized simultaneity. For physical events, however, there are alternative inertial frameworks. And relativity theory says that determinations of temporal location and simultaneity must be relativized to such frameworks. Einstein granted that drawing a temporal inference from the psychological to the physical often yields no conflict with the evidence, at least not in ordinary cases and for practical purposes, because, given the high velocity of light, the difference in temporal location from one inertial framework to another is too small to be observed. (As we shall see in a bit, this undermines Bergson's response in two ways.) Nonetheless, there are such differences. And no psychological evidence permits the inference from psychological simultaneity to absolute physical simultaneity even for events that are near to each other.

Einstein (1922/1969, 133) concluded: "Hence, there is no philosopher's time; there is only a psychological time different from the time of the physicist." Given the gloss after the semicolon, what appears before it means only that there is no concept of time such as the one that Bergson tries to employ such that an inference from claims about the mind to claims about absolute simultaneity can be warranted. Psychological and physical times should be kept distinct. This conclusion is not, as some have suggested, either "scandalous" or "incendiary" (Canales 2015, 5) any more than it would be for an eighteenth-century chemist to say that there is no philosopher's stone or for Lavoisier to say that there is no such thing as phlogiston.

Piéron was an empirical psychologist, and his comments on separating psychological and physical time are even more pointed. He gives essentially two arguments. First, he notes that his experimental results show that many factors other than physical temporal proximity can influence our perceptions of simultaneity. Hence any such inference is at best unreliable. Second, he notes that all observations are inexact, and so there can be no absolutely precise determinations of simultaneity even within the psychological realm. Piéron's (1922/1969, 134–35) conclusion is "Thus determinations of psychological succession or simultaneity can in no case be utilized as a measurement of physical time. . . . And thus the Bergsonian duration seems to me to be obliged to remain a stranger to physical time in general and in particular to Einsteinian time."

Bergson (1922/1969, 135) replied very briefly that he completely agreed that “the psychological establishing of a simultaneity is necessarily imprecise.” He went on to add that, nonetheless, the psychological determinations are basic, that is, presupposed, by any instrument reading.

Bergson’s concession that determinations of simultaneity are necessarily imprecise is fatal to the argument he gave against Einstein regardless of whether one is talking about psychological or physical simultaneity or about absolute or relativized simultaneity. The inference from the series of claims 5 to 6 has some chance of success if the simultaneities are exact because that relation is transitive. But the relation of *almost* simultaneity is not.

Bergson’s remark that psychological determinations are presupposed in any instrument reading can be doubted,<sup>12</sup> but it does nothing to help his case, even if it is true. The inference from those psychological claims to Bergson’s desired conclusion requires far more than we are given here. The inference is not justified by pure logic. Nor is it warranted by the scientific facts. And Bergson does not intend it to be a mere linguistic choice. In fact, it seems doubtful that Bergson intends any of these alternatives. There seems to be little left but to suppose that Bergson believes the inference to claim 4 and beyond to be justified by some sort of philosophical intuition that sees deeper and corrects what physics has to say. Moreover, it is fair to say that Bergson is not trying to formulate an alternative theory to deal with the evidence that Einstein and other physicists take to be relevant to deciding whether to accept his relativity theory. Rather, Bergson is approaching the issue from the outside.

So what in Bergson’s argument would Carnap object to? Carnap would not object that it begins with first-person reports about experience or that Bergson wanted to use concepts other than those that Einstein wanted to use. If Bergson wants to use different concepts to formulate his own theory, that’s fine. That would not be to transcend science via philosophical intuition, but to do science, alternative science, in the familiar way. Carnap would object that the argument is a bad one, that Bergson has not understood Einstein or the argument as given ignores the approximative character of the observation of physical events. Carnap would object, but these features are not what makes the enterprise metaphysical. What makes it metaphysics is that Bergson believes that his nonconceptual (and thus to Carnap nonrational) philosophical intuition can see deeper than or behind what ordinary science can see and thus be in a position to overrule it. Bergson attempts to force

science to turn away from the concepts and patterns of inference that it finds most helpful in organizing experience and in organizing our response to it. This attempt is what makes it metaphysics. Such a mode of philosophizing impedes scientific progress. And insofar as intuitive insights are used on behalf of conflicting philosophical claims, we lack a way to resolve the issues, and the result is endless controversies.

### ***2.3 Cases That Carnap Did Not Call Metaphysical***

We have seen two cases that Carnap did identify as metaphysics. There are other cases where one might expect Carnap to reach the same judgment but where he does not. These can be treated comparatively briefly. Hans Reichenbach was a vigorous supporter of scientific realism, the idea that the unobservable entities that science postulates, such as atoms and electrons, are really there and not just convenient fictions. And during much of his career, ontology was a central focus for W. V. Quine. Ontology is a central part of the field of metaphysics, and yet Carnap denies that either of these men are metaphysicians. Why? The answer is that both are trying to turn their ontological claims into empirical ones. Perhaps this is obvious in the case of Quine, who rejected a priori methods altogether and insisted that even logic and mathematics were empirical. Reichenbach didn't go quite that far, but it did seem that he was defending scientific realism as an empirical claim. Certainly, Carnap (1963, 870) thought so.

This accords well with Carnap's comments describing metaphysics as an attempt to gain knowledge that somehow transcends the knowledge that empirical science can aspire to. Having such deeper knowledge, metaphysics would be able, from some philosophical or intuitive perspective, to "correct" the results of empirical science. It is this that Carnap rejects.

## **3. HOW TO DO METAPHYSICS WITHOUT BEING METAPHYSICAL**

So is scientific metaphysics possible? As so often with Carnap, the answer depends on what one means, in this case by "metaphysics." If you mean what Carnap did by that word, namely an attempt from outside science to get at a reality that is behind or deeper than the results of ordinary empirical science, then the answer is of course not! But if you mean by "metaphysics" a branch of philosophy, rather than a way of going about it, then there is at least the possibility of working in this area in a scientific way.<sup>13</sup>

Carnap and his friends often spoke of “scientific philosophy,” and whether philosophy is scientific according to Carnap’s standards depends on how it is conceived and practiced. As we have seen, what Carnap was rejecting was plainly not a branch of philosophy as such, but a particular conception of philosophy. What he wanted was not philosophy as usual, or at least what was usual in early- and mid-twentieth-century Europe. Carnap did not want to *eliminate* or *overcome* or *uproot* metaphysics as a discipline or to do any of these things to philosophy as a whole. *Instead, he wanted to transform philosophy* so that it was not metaphysical in his sense, that is, so that it no longer tried to transcend science, that is, to reach deeper or higher knowledge than empirical science ever could. And he had an idea about how to do this.

Carnap wanted to reconceive the philosophical enterprise away from making (what purport to be) substantive claims about the world and that are claimed to be warranted by philosophical intuition. Instead, Carnap suggested that we think of the philosophical enterprise as one of making proposals for structuring the language of science. These proposals are not theories, not even tentative ones. They do not describe the world but have a different role. There is no fact of the matter about which of these proposals is the correct one because a language is not the sort of thing that is true or false. Philosophers can certainly engage in the highly useful task of exploring these linguistic structures to see how they work. This is a kind of conceptual engineering, but it is not describing the world around us. Philosophers, acting as amateur scientists, are free to describe the world around us. That is a perfectly worthwhile enterprise as long as it is evaluated on an empirical basis. And philosophical intuition is not any part of that empirical basis. But while these empirical descriptions are genuinely substantive/contentful, they are for the most part best left to one or more of the empirical sciences.

One is then free to adopt whatever language one wants, and in particular scientists are free to choose whatever language they find useful. Philosophers have no right to overrule them. For example, philosophers have no right to tell a Newton or an Einstein that they cannot use a language of points in space or instants in time or to define instantaneous velocity or instantaneous acceleration. Philosophers have no right to insist baldly that biologists must use a notion of kind or species of organism according to which species have essences that cannot change. Of course, it is permissible to challenge the logical consistency of an empirical claim or to defend such a claim against such a challenge. But such a discussion requires that the parties get clear

about what the language of that empirical claim is by explicating the rules that structure that language. Moreover, it is permissible for philosophers to explicate terms in scientific discourse that they find unclear. Such terms can be clarified/precisified/explicated in multiple ways. What is not permissible is for a philosopher to insist that scientists must use some specific clarification. What this reorientation of philosophy does, then, is to give empirical science the primary role rather than treating philosophy as the queen of the sciences and capable of ruling them.

The reorientation of philosophy described here is itself a proposal on Carnap's part for how to talk about philosophy and science. It is designed to give philosophy a useful and important role in the overall scientific enterprise (a role not unlike that of mathematics) while at the same time sidestepping the "wearisome controversies" that seem to be the inevitable result of dueling philosophical intuitions. This reorientation is neatly summarized by Carnap in his principle of tolerance. It is the centerpiece of his mature philosophy.

*In logic there are no morals.* Everyone is at liberty to build up his own logic, his own form of language, as he wishes. All that is required of him is that, if he wishes to discuss it, he must state his methods clearly, and give us syntactical rules instead of philosophical arguments. (Carnap 1934/1937, 52)

In saying that "there are no morals," he is saying only that no one language is the uniquely correct one. Some languages may be more useful than others, but scientists are free to make their own pragmatic choices as to which language they will use. As the years went by, the syntactic rules were broadened to include semantic rules as well. But the basic message remained the same. Philosophy is in the business of proposing and exploring conceptual structures—in other words, languages—that scientists may find useful. "*It is not our business to set up prohibitions . . .*" (Carnap 1934/1937, 51, italics in original). Scientists can talk of atoms and molecules or gross national products if these can be properly empirically grounded. And they are free not to use that language. They are free to use the language of real analysis or non-Euclidian geometries or four-dimensional manifolds of space-time points if that is helpful. And they are free to speak of selection pressures or to refuse to speak of species as having unchanging essences if that is useful in getting on with the business of describing the world. Scientists have the last word on what they need.



In this way, we can do metaphysics or any other branch of philosophy. We can explore realist or idealist languages. We can propose that we adopt a particular set theory. This sounds like metaphysics, and most now would call it that. We can propose a language in which ‘Zero is a number’ and ‘Every number has a successor’ are among the fundamental meaning-giving rules of the language. This sounds like ontology, and in one sense it is. Ontology as a field may be a branch of metaphysics construed as a subdiscipline of philosophy. But such proposals are not metaphysical in Carnap’s sense. Nor would Carnap count proposals for a realist language—a language of physical things—or for a particular set theory as metaphysics in his sense. They are not what he is rejecting when he rejects metaphysics. As I said earlier, Carnap was plainly rejecting not a branch of philosophy but a particular conception of philosophy from whatever branch. He was out to transform philosophy, not to overcome it or any of its branches. And he was trying by example to show us how this might be done.<sup>14</sup>

## NOTES

1. There is more to be said about what *cognitive* meaning is. But that is a topic for another essay. Carnap does not mean that the grammatically sound sentences involved express nothing whatsoever. They might very well express various attitudes. Rather the claim is that they do not succeed in describing the world truly or falsely.

2. See, for example, Bennett 2009, 38–39, especially footnote 2 (p. 38). The term *dismissivism* is Bennett’s and is used by her as a “generic label for the view that there is *something* wrong with these debates” (p. 39): the ones that she has just described as “things that we metaphysicians think about” (p. 38).

3. This in no way denies that he worked in other fields as well.

4. In the available English translation, the title is “The Elimination of Metaphysics through the Logical Analysis of Language.” “Overcoming Metaphysics through the Logical Analysis of Language” is closer to the sense of the original German.

5. This paper was originally published in a periodical that few academic libraries have: “God and the Professors,” *Our Sunday Visitor, A Weekly Catholic National Newspaper*, December 1, 1940. It was reprinted in *Science, Philosophy and Religion: A Symposium*, New York, 1941, 120–38. Our references will be to the latter.

6. But neither here nor in the department seminar lecture does he seem to put any boundaries on the domain of either philosophy (he generally calls it “metaphysics”) or theology.

7. Bergson’s two most famous works relevant to this discussion are *Creative Evolution* (1911) and *Duration and Simultaneity: With Reference to Einstein’s Theory* (1922/1965). As the title of the latter of these suggests, it is a defense of his position in the controversy with Einstein, discussed below.

8. Carnap’s reading would seem to be plausible on its own. But it would have been particularly so to Carnap, given that the document from which Carnap’s comment comes is the *Aufbau* (Carnap 1928/1967), which is now considered to be in many ways a neo-Kantian book. For Kant, the deployment of concepts is at the very heart of the rational enterprise, and to eschew concepts would be to eschew rationality itself.

9. Gunter (1969) has given a sympathetic and systematic interpretation of many of the major documents of and surrounding Bergson’s controversy with Einstein, a reading that is still cited approvingly (Canales 2015, 237) by Bergson’s contemporary advocates.

10. In saying this, Bergson is not necessarily anti-science, nor did he view himself as arguing against science. Apparently, he actively studied physics, biology, mathematics, and perhaps other sciences (Gunter 1969, 24, 29). But an interest in science hardly shows that he understood the individual scientific theories that he studied.

11. For an excellent treatment of this and related paradoxes and their significance for using a dense ordering for temporal elements, as in talk of instantaneous velocity or acceleration, see White 1992, 177–79.

12. Such claims are, of course, an article of faith in the “way of ideas” tradition stemming from Descartes. It was a popular view among both rationalists and empiricists for centuries and well into the twentieth century. I have no intention of challenging it here, but it is somewhat less popular now.

13. One prominent defender of what he and others call “scientific metaphysics” is C. Kenneth Waters. See especially his 2017 publication, where he says: “For the purposes of this chapter, I will assume that metaphysics is an area of philosophy that seeks to answer questions about the general nature of reality . . .” (83).

14. Thanks to Elliott Sober for first stimulating my interest in the Bergson–Einstein exchange. Thanks also to colleagues Steve Elliott, Jane Maieschein, and especially Ronald Hoy for comments on earlier versions of this chapter.

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