

WHY IS THERE SOMETHING RATHER THAN NOTHING?

“. . . For nothing is simpler and easier than something,” Leibniz went on to say.¹ About the “simpler” part of it, there will be no occasion to dispute here. What I want to challenge is the “easier” part.

At any rate, I want at least to cast doubt on the logical coherence of the concept of nothingness. The discussion hinges, of course, on what is meant by “existence” (of which nothingness is the absence); any progress made should therefore contribute somewhat towards illuminating the meaning of the elusive verb *exist*.

It is not just out of respect for Leibniz that recourse to verificationist considerations should be abjured in this inquiry; for as long as it makes sense to assert—verifiably enough—the existence of something particular, the (admittedly super-modest) entailed statement barely to the effect that *something exists*,² as well as the logical negation of that statement, will have to be acknowledged cognitively meaningful as well. However, “cognitively meaningful” does not exclude “logically contradictory.”

The logical possibility of nothing at all existing (in some sense) certainly has seemed self-evident to many. Inasmuch as every existent is logically contingent (otherwise ontological arguments would be valid); and every such existence is logically independent of all others;³ the logical possibility of the joint nonexistence of all such existents, together also with that of every other logically possible existent, has seemed to many to follow quite inescapably. Indeed, as far as mundane *physical* existence is concerned at any rate, definite past and/or future limits to its duration period have frequently been not just hypothesized but positively asserted by theologians and astrophysicists as well as by many philosophers.

¹ *The Principles of Nature and Grace, Based on Reason*, 7.

² Are there different senses of “exist”? Perhaps so. Take this assertion, then, in one of them—indeed, take it severally in each of them. But are there logically unmixable *categories* of “existent”? No, there are not, I contend. See my argument in “Against ‘Categories.’” *Philosophical Studies*, Volume 26, Numbers 5/6, December, 1974, pages 337-356.

³ “All beings in the universe, consider’d in themselves, appear entirely loose and independent of each other,” David Hume, *A Treatise of Human Nature*, Book III, Part I, Section I, L. A. Selby-Bigge edition (Oxford, 1888), page 466. Cf. William of Ockham, “God can separate every distinct thing [“*omne absolutum distinctum*”] from any other and keep it in being without that other,” *Quodlibet* VI, ql.

There is, however, an opposite conception in the field,⁴ according to which all “existence” is the existence of something specific; and likewise, all “nonexistence” is the nonexistence of something specific—of some specific *sort* of possible (or impossible) existent, that is. At that rate, all “nonexistence” would be *relative* only; and *absolute* “nonexistence” would be simply—meaningless. It would simply be meaningless to talk of the *nonexistence of anything whatsoever*.⁵

Let us consider here *physical* existence only, the seemingly unproblematic existence of the spatiotemporally located and “extended.” If an absolute vacuum situated in any particular place is ever a logical possibility, then the nonexistence of anything physical would simply be the state of affairs in which there were in fact no place where anything other than such a vacuum was located. There has, indeed, been a persistent tradition in the history of philosophy prior to our time absolutely denying the possibility of a physical vacuum; but the popularity of this denial has quite exceeded the logical cogency of the arguments put forward in its defence by such great names, even, as Aristotle, Descartes, and Leibniz.⁶ Such a reflection must severely temper, to put it mildly, any confidence in a new effort along these lines!

Some comfort, however, may be taken in reflecting upon just how much—or rather, how little—would have to be involved in the actual location somewhere of a genuine *absolute* vacuum. The mere absence there of any “matter,” in the physicists’ sense, would certainly be insufficient. An *absolute* vacuum could surely not contain any “energy,” and, in general, no physical “fields” of any kind (insofar as these can be correctly ascribed any substantiality whatever—an issue

⁴ See, e.g., *Hegel’s Science of Logic*, Volume I, Book I, Section I, Chapter I. Plato may or may not have been getting at something similar in his dialogue, *The Sophist*. See G. E. L. Owen’s paper, “Plato on Not-Being,” in *Plato, A Collection of Critical Essays, I*, edited by Gregory Vlastos (Garden City, New York, 1971).

⁵ The epithet “meaningless” need not be construed here as precluding the ascription of truth-value to a sentence. There is, after all, a familiar enough sense in which, e.g., “X is a married bachelor” is said to be a “meaningless” thing to assert. (Thus, “meaningless” need not mean the same as “cognitively meaningless.”)

⁶ To oversimplify—Aristotle: *places* are the locations of things; therefore, a place with nothing located there is an impossibility. Descartes: *matter* is nothing but spatial extension; hence, there just *cannot* be any extent of space without any matter there. Leibniz: the ontological argument proves the logical necessity of the existence of an omnipotent perfect being, able and willing, thus, to ensure that this is the best of all possible worlds; therefore, as existence is better than nonexistence, this world must contain the maximum possible existence. (In a way, the general theory of relativity revives something like the Cartesian equating of matter and extension; thought not, of course, tautologously.)

not yet fully resolved scientifically). There may, additionally, be other sorts of things, not yet discovered by physical science, which do exist but do not fall under any of these headings. All existents of those sorts too must clearly be absent anywhere that a bona fide absolute vacuum may be said to be situated. The concept of an "absolute vacuum" in this philosophical sense, expressly going beyond all current knowledge and theorizing, could obviously not, for that very reason (legitimately) appear in the current physical theory of any single given historical epoch; it must be a concept belonging not to physics at all, but to metaphysics. Insofar as the epithet "metaphysical" still does retain deserved pejorative force, there is some comfort in the thought that attacking the philosophical concept of an *absolute* vacuum is in this sense attacking metaphysics.

It is true that merely to deny the logical possibility of a bounded vacuum, environed with a world of things, is distinguishable from denying the logical possibility of there not existing anything whatsoever. And the real possibility of such a "world" of nothingness definitely has been postulated by logicians later than Leibniz. Certainly, denial of the latter possibility would have the advantage of enabling the foundations of mathematics to be significantly simplified without impairing whatever necessity could otherwise be claimed for that science. The merit of the following line of argument from this standpoint is that the particular *sort* of consideration on which it draws in discrediting the idea of a bounded vacuum is conceptually general enough, if cogent, to militate likewise against the idea of absolute nothingness as such. And so, although the talk in what follows is certainly of spatial vacuums, it is not really too hard to perceive how it is here that more (or rather, less) is at stake.

Verbally, the central paradox is not a difficult one to formulate. What is a vacuum (an absolute vacuum, that is)? A *vacuum* may be said to exist in any place where it would be true to deny that anything exists. Not just, say, anything "massy" in the physicists' sense, or otherwise specifically characterizable, but absolutely anything whatever. If, then, it would be true to deny the existence of anything whatsoever in such a place, how could a *vacuum* be said to exist there? The conclusion seems inescapable that a vacuum could not correctly be called an existent at all.⁷ Why cannot we say, then, that

⁷ The first to call it self-contradictory to ascribe existence to nonbeing was doubtless Parmenides, who wrote in his poem *On Nature*, ". . . it is neither expressible nor thinkable that What-Is-Not Is" (Diels fragments 7, 8, as translated by Kathleen Freeman in her *Ancilla to the Pre-Socratic Philosophers*, Oxford, 1956, page 43). Cf. Melissus: "Nor is there any Emptiness; for the Empty is Nothing; and so that which is Nothing cannot Be" (Diels fragment 7(7), as translated in *ibid.*, page 49).

the existence of a vacuum anywhere being a logical impossibility, the very concept of such a vacuum must itself be a logically incoherent concept?⁸

The readily foreseeable answer, of course, would be that a vacuum just “would not be the sort of thing” that ever would *exist* anyway—at any rate, it would not ever “exist” in the same sense in which tigers, mountains, tornadoes, and electromagnetic fields “exist.” The *reality* of a vacuum would not—in that sense—entail its *existence*, though to assert the reality of a mountain or of an electromagnetic field *would* carry such an entailment. This is the line of argument I must strive to discredit if I can. If I can make the view plausible that the sense in which a vacuum would “exist,” if it did, would have to be the same as the sense in which a mountain did, then I will have gone a real distance towards lending some color of justification to the general antinothingness thesis I am concerned to further.

What would be required to make good the denial that the reality of a vacuum would have to constitute an “existence” in the same sense as the reality of a mountain would? If the “existence” of something like a mountain anywhere means only the “copresence” of certain qualities—to speak more precisely, the joint obtaining there of certain specific conditions—then the mountain’s “nonexistence” in a given location could only be the failure of those conditions to obtain jointly there; a state of affairs which could be reported in a disjunctive statement each disjunct of which asserted a particular condition to obtain there, which condition was the “logical alternative” of one of the aforementioned conditions; that is, each of the conditions for the existence of singular mountainousness anywhere is a condition the nonfulfillment of which is itself a possible condition that might obtain somewhere; and the disjunctive affirmation of the statements severally asserting each of these latter conditions to obtain in a given place would itself be the real assertion of something’s existence just as much as the opposing assertion of a mountain’s existence there would likewise be. In other words, the nonexistence of a mountain in a given

⁸ It has been urged that perhaps the force of this argument might be evaded by defining a *vacuum* in the Scholastic manner as a certain sort of *place*—a place without anything in it, or rather (if I may suggest an amendment), a place without anything in it apart from itself (for surely it would exist *there* if it existed at all). Can a *place* really be regarded as an existent in its own right? At any rate it would seem it cannot if it is an absolutely vacuous place, as no such place can contain anything whatsoever that is existent—unless, that is, such a place could be identified with the physically existing *periphery* of the spatial region in question. But it is argued below that not even a relative vacuum can be identified with its physical periphery.

location would be nothing but the existence of something else at that spot (a “nonmountain”), and there would be no question here of *absolute* nonexistence being even conceivable. That is where we get with a *qualitative* concept of “existence.” If *absolute* “nonexistence” is to be conceivable, the need will be instead for a purely *quantitative* conception of “existence.” That will be what is needed; but is it to be had? An introspective review of actual and possible uses of “exist” does not encourage an affirmative answer to this question.

After all, are not the only *existence* and *nonexistence* with which we are in fact familiar thoroughly *qualitative* and *relative*? Talk of absolute “existence” *as such* is indeed a well-known feature of traditional “rational theology” and, to some extent, of mysticism—but does anybody have any real idea of *what* such talk is talking about? Any vacuums with which we have any acquaintance in science, and even in science fiction,⁹ are only *relative* vacuums, are they not? That is, what is commonly to be found in other places is not to be found in the specific places where the vacuums are said to be situated. It would appear simply to be a matter of more or less *different* conditions obtaining in those regions from the conditions which obtain elsewhere. Is anything more to being-a-vacuum even seriously *conceivable*?¹⁰

Here, however, is a *positive argument* against the attempt to deny that the sense in which an *absolute* vacuum would “exist,” if it did, would have to be the same as the sense in which, e.g., a mountain does “exist.” A relative vacuum, we have been assuming, requires only the nonexistence of something specific, let us say the nonexistence of anything at all of some specific *sort*. Wherever an *absolute* vacuum were to exist, any number of relative vacuums would have to exist likewise; and the existence of an absolute vacuum in any region would be, in fact, *nothing but* the coexistence there of all those relative vacuums, one such relative vacuum for any logically possible

⁹ A bold statement, this one. Really we should not need to be reminded that just about *anything* can and does find its way into the pages of science fiction—including theology, mysticism, and why not a certain amount of unintelligible nonsense? On reflection, the statement made in the text seems fairly certain to be not just bold, but false. And yet, it certainly was *plausible*, was it not? I shall have to be content to rest my case on that. That, however, *will* suffice well enough for purposes of the present paragraph, which really is only concerned to make out a plausibility case here in any event.

¹⁰ One striking difference between anything with which we are familiar and a bona fide absolute vacuum would be the latter’s lack of any internal differentiation whatever, i.e., conditions could be no different in any one part of that region which just contained it from what they were like in any other part of the region. But this characteristic of internal homogeneity has sometimes been attributed to positive existents as well, e.g., “fundamental particles,” minds, the Deity.

sort of contents which that region might have contained. Accordingly, the sense in which an absolute vacuum would “exist,” if it ever did, could not be any different from the sense in which such relative vacuums can be said to “exist.” But, in the present sense of the expression, the real existence of a “relative vacuum”—or of an “empty space” or a “gap,” as we commonly call it—is a very familiar phenomenon indeed. A *hole*, for example, is a “relative vacuum” in the sense in which we are here speaking. From the foregoing considerations we can see why the sense in which a hole can be said to “exist,” wherever one does, must be recognized as being no different from the sense in which an absolute vacuum would “exist,” if one ever did. But can *holes* be seriously denied to “exist” in the same sense as that in which *bumps* “exist”? There is no more basis for identifying a hole with its periphery than for doing the same with a *bump*. Rather, a *hole* and a *bump* are what are contained *within* those spatial bounds.¹¹ For what goes for a bump will go for any thing. A *mountain* is a big bump. If holes and bumps “exist” in the same sense as each other, then holes and mountains must surely “exist” in the same sense as each other. But we have seen already that this is the very same sense of the word in which an absolute vacuum would “exist” if one ever really did. The present line of reasoning appears to make it highly implausible to deny that the sense of the word “exist” in which an absolute vacuum would “exist,” if one ever really did, is indeed the very same as the sense in which any physical thing, like a mountain, for instance, can be correctly said to “exist” wherever one of them really does.

But, by the very definition of a “vacuum,” wherever an “absolute vacuum” were to exist, it would be correct to deny the existence there of anything whatsoever. Therefore, an absolute vacuum could never exist anywhere, it appears. The very sentence, “A vacuum exists,” seems to prove irremediably self-contradictory.

Objection:

What all the foregoing has quite overlooked is the way self-contradiction can be avoided simply by rewriting “A vacuum exists” as “Not every place is a place which has anything in it.”

Rebuttal:

If the foregoing holds good otherwise, it demonstrates that

“Not every place is a place which has anything in it”

is for its part self-contradictory because *it* can be rewritten as

“A vacuum exists.”

To the extent that the two sentences really are logically equivalent (let

¹¹ Only this interpretation can explain the literal correctness of the interchange: “How big is this hole?” “Three cubic metres.”

alone fully synonymous), it is impossible that one of them should be self-contradictory without the other one being so as well.

Objection:

This reply misses the point, which is that saying "a vacuum exists" somewhere is just an *incorrect* way of denying that anything whatever (spatiotemporal) exists there.

Rebuttal:

Whatever *is* incorrect about saying, "A vacuum exists," in comparison with any alternative phraseology? What is asserted in the words, "A vacuum exists," is surely no different from what is asserted by the statement that not every place is a place which has anything in it.

Objection:

What in fact is incorrect about saying that "a vacuum exists" anywhere, making use of those very words, is the resultant misemployment of the term "exists" in such a linguistic usage. For vacuity, wherever located, will by definition be a matter of *non-existence* there. Consequently, it must be a verbal error to express its location anywhere by saying that "a vacuum exists" in that location.

Rebuttal:

This amounts to maintaining that what makes it incorrect English to say that "a vacuum exists" in any spot is the inappropriateness of using the word "exists" in this context, assuming that "exists" were here to be understood in its standard sense, i.e., presumedly, the same sense as it has in the sentence, "A mountain exists." We have, in the above, just been considering the position that "A vacuum exists" can be rendered consistent by attaching a sufficiently different sense in that sentence to the verb "exists" from the sense which the word has in the sentence, "A mountain exists." But the conclusion to which we were led on this was that, in order to express the absence of anything whatever from a spot by saying, in just those words, that "a vacuum exists" in that spot, it is necessary in fact to use the word "exists" in the very same sense in this context as the sense in which it is used in the sentence, "A mountain exists."

It must still appear altogether impossible then, in view of the preceding considerations, that any place anywhere should really ever be absolutely vacuous, that is, a place without anything whatever existing in it. This must surely cast doubt—must it not?—on the conceivability coherently of there not existing anything whatever; and likewise on the conceivability coherently of there not existing anything (spatiotemporal) whatever, prior to, or subsequent to, a given time. Why should something exist rather than nothing at all? There might be no alternative.

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