The Duality of Existence

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On an initial survey of problems in ontology, it can be tempting to suggest that there are at least two different meanings of existence, one applying to material entities and the other to abstract entities. This view has been criticized as philosophically naïve by Peter van Inwagen among others. However, the inclination remains pervasive and can arise even from such unexpected sources as the work of Rudolf Carnap. The structure of internal and external existence statements that Carnap imposes on ontological discourse seems to induce a natural division between two separate frameworks for existence claims, and if no clear existence criteria uniting these frameworks can be given, we will have to take seriously the possibility that existence is not univocal.

I. Carnap and Linguistic Frameworks

As part of his attempt to eliminate metaphysics from human discourse, Carnap introduces the concept of a linguistic framework, which lays down the rules for talking about some entity X. Normally when we ask whether something exists, we are raising an internal existence question, which is answered by consulting the rules of the relevant framework. Philosophers naturally want to step outside these frameworks and ask whether the rules are actually correct to tell us that some X exists, but Carnap argues this is not coherently possible, because we have no way to talk about X outside the framework used for discussing it. Thus, Carnap contends,

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it is impossible for us to say simpliciter that some entity or kind of entity exists. He takes this to be a demonstration that assertions about existence are meaningless.

However, a problem arises for Carnap's analysis when we consider in more detail what exactly is meant by the term "framework." Carnap suggests, for instance, that we can never make an informative claim that numbers exist, because either we are speaking inside the linguistic framework used to deal with numbers, in which case it is trivially true that there are numbers, or we are speaking outside that framework, in which case we have no way to make reference to numbers. However, this disregards the fact that one linguistic framework may be contained within another: it seems reasonable to say that the framework of numbers may be contained within a larger framework of mathematical objects whose rules stipulate that numbers as a category do exist. Thus we can answer external questions about the existence of numbers by consulting the existence conditions for mathematical objects in general.

Of course this merely pushes us back a step, for Carnap could retreat to the claim that we cannot say that mathematical objects exist. But for each such retreat, we can counter by appealing to some larger framework which contains the framework in question. The regress, however, will not become infinite, because there does seem to be a point beyond which further generalization is not possible. When we start with numbers, progressive moves to larger frameworks will eventually bring us to the category "abstract entities," and it is difficult to see what larger framework could contain this, except perhaps a universal one of undifferentiated entities. Similarly, if we start with a set of material objects, the regress can seemingly continue only as far as "concrete entities," which will include objects, events, processes, possibly thoughts and minds, and more borderline phenomena such as sounds and rays of light. Carnap's arguments suggest that it is meaningful within the former framework to claim that a certain abstract entity exists, and it is similarly meaningful within the latter framework to claim that a certain concrete object exists. However, unless these frameworks are themselves contained within some even larger framework, we will not be able to say that abstract or concrete entities exist simpliciter. If no such larger framework can be given, existence claims will have to belong either to one class or to the other in order to have meaning at all.

II. Existence Criteria

Despite these complications, perhaps there is a single framework within which the abstract and concrete entity frameworks can be nested—a universal framework for "entities" of any kind. In order for this framework

to be appropriately univocal, it ought to be governed by non-disjunctive existence criteria that apply both to concrete and to abstract entities. In search of such criteria, we might first consider W. V. O. Quine's slogan, "To be is to be the value of a variable" (708). Less succinctly, Quine is suggesting that we should examine the formalization of our theories about the world and identify which objects must be in the domain of quantification in order to make the right statements true, and then consider these objects the ones that exist. However, as van Inwagen notes, Quine's criterion is not so much a criterion as a tool: it is "the most profitable strategy to follow in order to get people to make their ontological commitments—or the ontological commitments of their discourse—clear" (246). And even in this sense Quine's criterion is not a hard and fast rule, since as van Inwagen indicates, theories can be formulated in numerous different ways, so if we dislike one implied ontological commitment, we can generally find a new expression of the theory that avoids the commitment (243). Being the value of a variable, therefore, is not a sufficient condition for being included in the set of objects which we hold to exist.

Nor is it a necessary condition. Most people (at least of the realist persuasion) would agree that there exist a great many objects which no one has ever imagined and which are therefore not the value of a variable in anyone's theory. It could be argued that we have some place in our theories for a variable ranging over things not yet encountered or imagined, but this is problematic when combined with semantic externalism. If we agree with Hilary Putnam that one cannot succeed in referring to an object without having direct or indirect causal contact with it, surely our theories could not quantify over such unknown and unimagined objects. Furthermore, there may well be some objects, including bizarre mereological fusions like the "trout-turkey," which are not a part of any current theory (apart from explicitly mereological theories) because they play no useful explanatory or practical role. However, we would surely not wish to make this a reason to deny that they exist at all, on pain of ending up with a definition of existence which makes it contingent upon pragmatic value. It seems that Quine's criterion cannot provide a full account of our ontological beliefs, since they outrun the theoretical commitments highlighted by the criterion.

Furthermore, it is overly simplistic to imagine that we first form our theories and then read off what exists from them. As a matter of fact, questions of existence often drive both our acceptance of a theory and the way we express that theory to ourselves: if some theory involves ontological commitments that we find extravagant, we will either reject it or look for a better way to express it. It follows that at least some existence conditions must be applicable before theory formulation is possible. Of course, no human ever operates completely outside the framework of theory, but neither

can theory be understood as existing prior to all of our cognitive activities. Thus, although Quine's criterion might be a useful heuristic tool, it cannot be the basic criterion which we use to make decisions about what does or does not exist.

A second potential criterion for existence can be found by consulting a much older philosophical tradition. One of the major motivations behind the Platonic conception of the forms as existent entities is the fact that certain universals, such as properties or numbers, seem to be mind-independent: "But if the very nature of knowledge changes, at the time when the change occurs there will be no knowledge, and, according to this view, there will be no one to know and nothing to be known: but if that which knows and that which is known exist ever, and the beautiful and the good and every other thing also exist, then I do not think that they can resemble a process of flux, as we were just now supposing" (Plato 715). This notion of mind-independence can be generalized. Our willingness to attribute existence increases as the entities concerned become more independent of our minds: very few people would agree that a fictional character exists, but more would be prepared to say that Newton's First Law exists, and nearly everyone accepts that numbers do indeed exist. We can understand this by observing that there are no external constraints on the properties of a fictional character, whereas the properties of laws of nature seem to be fixed partly by convention and partly by unalterable facts about observed regularities, and the properties of numbers are entirely outside human control. Nor does this apply only to abstract objects. Nearly everyone is willing to attribute existence to matter or whatever we take the basic stuff of the world to be, and most people will also say that macroscopic objects like tables exist, although mereological nihilists claim that these are already too dependent on our human conventions of composition. However, it is common to deny that spatially scattered mereological fusions such as "trout-turkeys" exist on the grounds that these compositions are purely mental, possessing no mind-independent unifying principle. It seems then that mind-independence is a major part of what we take to be necessary for existence.

III. Degrees of Existence

It may be objected that since mind-independence is a matter of degree, this approach implies that existence also can be a matter of degree, when surely existence must be an all or nothing affair. As a first response, we might deny that existence is transitive from one framework to another. An item x might be sufficiently mind-independent to be counted as existent within a certain framework X, and that framework itself might be sufficiently mind-independent to be considered existent within some other framework Y, but x itself might not qualify as existent within framework Y since Y might apply more stringent existence conditions than X. For instance, perhaps "trout-turkey" fusions exist within the framework dealing with mereological fusions, and mereological fusions exist within the framework dealing with material entities, but "trout-turkey" fusions do not exist within this framework because not all mereological fusions are acceptable according to its criteria. If this is the case, then the apparent degree of existence of an object O can be understood as a measure of the number of frameworks within which that object exists simpliciter. This reply, however, seems to have counterintuitive consequences: if we accept that X exists within the framework of physical objects and that physical objects exist within the larger framework of material things, but we deny that X's existence is transitive, in some contexts we may be forced to accept such claims as "X is a physical object, and physical objects exist, but X does not exist," which sounds inconsistent.

Another possibility is to accept that every subject possesses a criterion dictating how much mind-dependence is acceptable before an object ceases to exist, but to deny that all subjects make this cut-off in the same place. In this case, what we take to be the degree of existence of an object can be understood instead as a measure of the approximate fraction of subjects who would count the object as existent.

Alternatively, we could suggest that though all subjects place the cut-off for existence in more or less the same place, they differ in their assessments of the degree to which a given entity is mind-independent. Thus what we take to be the degree of existence of some object can once again be interpreted as a measure of the approximate fraction of subjects who would count the object as existent.

Finally, we could hold that subjects approximately agree on which objects exist and which do not exist, but that we simply confuse mind-independence and existence. Objects either exist or do not exist depending on whether their degree of mind-independence is above or below the relevant threshold, but because of the strong association between mind-independence and existence, it is possible to think wrongly that existence itself is being attributed in degrees in such contexts.

The choice between these options will depend on further examination of our linguistic behavior regarding the concept of existence. However, it is clear that acceptance of the claim that our existence attributions are related to degree of mind-independence does not commit us to accepting that existence itself comes in degrees.

IV. Mind-Independence

A further objection to this account is that it implies that minds, thoughts and even people do not really exist, since they are not mind-independent. To respond to this, we must clarify the notion of mind-independence. Certainly one cannot specify mental concepts without reference to the mind, but they are nevertheless mind-independent in the sense that they possess fixed properties that we cannot alter at will. Although the mind develops in a way that conforms to conscious decisions that we make, it is nevertheless governed by constraints and limitations which we are powerless to change—in particular, the processes which it has undergone in the past are no longer open to alteration. Even a thought, once it is no longer occurring, has its properties fixed forever; it has a temporal location which we are powerless to alter. By contrast, a fictional character is mind-dependent because we are free to alter his properties at will. Of course, we can also alter the properties of a concrete object by physically manipulating it, but that allows us to influence only its future properties: its present and past properties are beyond our control. Thus we may specify that an entity is mind-independent to the degree that its properties are fixed.

Incompatibilists might worry that strictly speaking, if determinism is true, then it is never really within our power to effect any change, which suggests that on this account everything is mind-independent and therefore existent. However, what is important in this context is not freedom of the will, but the causal role played by the human mind as a medium of change in the properties of certain entities. Whether or not we have the ability to freely choose what this change will be is irrelevant: all that matters is that it is within normal human capabilities to make the change. Similarly it does not matter whether we actually choose to make any changes, since capabilities continue to exist even when they are not exercised.

A more serious concern is that this characterization of mind-independence forces a certain view of time upon us, since it is present capabilities which are of interest. The theory implies that past events and objects exist because they are now beyond our conscious control; similarly, it implies that many present events and objects exist because it is now too late for us to do anything about them. With respect to the more contentious question of the future, we can say that future events and objects exist only if they are outside human control—that is, if there is nothing we can possibly do to prevent them occurring or change their properties.

This result is similar to the growing-block universe view espoused by C. D. Broad, according to which the past and present exist, but the future does not because it is continually being generated, with the exception that certain future objects and events can be said to exist if they are outside

human control (68). But this exception is compatible with one of the most common motivations for the growing block theory: the desire to preserve free will. I have argued that this construal of mind-independence is compatible with a determinist view according to which there is no such thing as free will, but it is also compatible with a view that does uphold free will. If existence is contingent on mind-independence, then anything we can alter does not yet exist, and therefore future events which we have yet to make decisions about are not fixed.

It might also be objected that this account of mind-independence depends upon our ability to specify a distinguished present, which is incompatible with the Special Relativity's claim that simultaneity is relative to each observer. But since the question at issue is the present ability of some observer to effect change, we need be concerned only about what is present relative to this observer. Indeed, this analysis coordinates rather well with Special Relativity, since the events that a subject is able to influence will be some subset of those which he can reach with a causal signal, i.e., those lying in his future lightcone. It may seem problematic that subjects traveling at notably different speeds might give different accounts of what exists; for example, something lying in the future of one subject might lie in the present or past of another. Yet this result should not be troubling, because a number of theories of time, including presentism and the growing-block universe, hold that subjects at different times will make different judgments about what exists; it is only a trivial extension to suggest that subjects in different frames of reference will also make different judgments about what exists. This is not to say that there cannot be a matter of fact about what exists, only that there is an irreducibly perspectival element to existence. We can usefully make a comparison to Special Relativity: simultaneity in that theory is regarded as relative to the observer, yet the facts about what is simultaneous for any one observer are not up for dispute.

V. Mind-Independence of Concrete and Abstract Entities

Anthony Quinton writes that "[we] could argue that we count only those things as real that can be fitted into the one coherent and public space and time, that such locatability is a criterion of being real. For what is a dream or a fantasy or an illusion of the senses but an experience that fails to fit into the unitary spatio-temporal scheme?" (211). And indeed, it is clear that the simplest way in which an entity can have fixed properties is by having a spatiotemporal location. This is the feature shared by all concrete entities, including material objects, events, and more borderline phenomena such as rays of light. A number of entities that are neither

precisely material nor abstract, such as thoughts and experiences, can also be thought of as concrete entities in this context because they have a temporal location even though they lack a spatial one.

Conversely, abstract objects such as numbers, possible worlds, and properties seem to be characterized by a lack of a spatial or temporal location. We therefore need to find another source for their apparent mind-independence. In the clearest cases, it seems to come from a realm of unalterable relations. Numbers, for instance, are mind-independent in the sense that the relations between them cannot be changed by human thought or action. Similarly, possible worlds are governed by a set of logical relations which seem to be beyond human influence. This is striking when we consider the fact that spatiotemporal location is often characterized in terms of spatial and temporal relations between entities. Indeed, the systematic relations between abstract objects are often characterized in terms of "spaces" such as arithmetical space, logical space, or phase space. There is pleasing symmetry in the proposal that concrete entities exist in virtue of their spatiotemporal location, while abstract entities exist in virtue of their location in an abstract space.

It should be evident that abstract spaces are conceptually derivative from our experience of actual spatiotemporal reality. The very use of the term "space," which applies first and foremost to actual physical space, indicates this, as does our practice of laying abstract spaces out in two or three dimensions of physical space and applying to them tools initially developed for use in the physical world—for instance, ordinary area and volume formulae are frequently used as part of proofs about velocity space. Furthermore, we experience concrete entities as directly presented in a spatiotemporal manifold with minimal need for information processing on our part, while the spaces of abstract entities, though their properties may be fixed, are conceivable only after what can sometimes be considerable intellectual effort. Finally, consider the process of human cognitive development: we grasp concepts related to actual physical space-time significantly earlier than we come to grips with analogues such as arithmetical or logical space. Thus the relations and spaces characterizing abstract objects are themselves more mind-dependent than actual physical space in that they are deliberately modeled upon our spatiotemporal experiences and therefore occupy a secondary role in our ontology.

Given that it is these relational spaces which confer existence upon the objects that are related, it seems likely that we are dealing with two senses of existence, the first being literal and the second being almost metaphorical. Stephen Yablo and Andre Gallois reach a similar conclusion by considering the application of Quine's criterion to theories that include irreducibly metaphorical elements. They argue that there is no principled way to eliminate metaphor from our theories, and thus Quine's criterion will always fail to resolve certain existence claims since "the more controversial of these claims are equipoised between literal and metaphorical in a way that Quine's method is powerless to address" (259). But while we can agree that existence claims do sometimes have a significant metaphorical element, there are also cases in which they seem entirely straightforward, and on examination, we find that these cases are generally the spatiotemporal ones. We can therefore apply the notion of two senses of existence to Yablo and Gallois's analysis: the literal meaning of existence, based on spatiotemporal location, is normally uncontroversial because it is a matter of empirical fact whether some object or process has a spatiotemporal location, but the metaphorical usage is problematic because we cannot observe the spaces involved and therefore there can be disputes about their content. The issue is further confused by the fact that references to existence are ambiguous, so when an object exists in the metaphorical sense but not in the literal sense, we have difficulty answering questions about existence that do not specify the sense intended. Thus the proposal that existence has two distinct meanings proves useful in elucidating the well-known intractability of many existence claims.

An immediate objection to this view is that by making spatiotemporal location so central we are committing ourselves to the existence of absolute space. But this is not the case. Just as it is relationships that characterize the logical and mathematical spaces in which numbers and logical truths exist, so it may be spatiotemporal relationships that characterize the literal space in which concrete things exist and which give substance to existence claims. In fact, it should be immediately obvious that absolute space cannot exist in the primary sense, because space itself cannot have a location in space. It should also be clear that absolute space does exist in the secondary sense, because it is a paradigmatic example of an abstracted realm governed by rules analogous to our ordinary experience of space.

Abstract and concrete entities therefore cannot be thought of as obeying the same criterion for existence, for although the existence of both is related to mind-independence, in the case of concrete entities it is spatiotemporal location which primarily grounds claims to existence, whereas abstract entities are grounded by their location in some kind of conceptual space. This secondary criterion is modeled on, but nonetheless distinct from, the criterion for concrete entities. Therefore the two branching frameworks we have identified are not ultimately united within one universal framework, but remain as two separate networks, each exemplifying a different meaning of existence. Furthermore, the sense in which concrete entities exist is clearly primary, while abstract entities exist in a secondary, derivative sense which can be viewed as a metaphor for normal spatiotemporal existence.

VI. Van Inwagen's Objections

Van Inwagen has two principal objections to the thesis that there are two senses of existence. First of all, he claims that existence is strongly tied to number, and that numbers have the same meaning when applied to abstract and to concrete entities, and then he concludes that "the univocacy of number and the intimate connection between number and existence should convince us that there is at least very good reason to think that existence is univocal" (236).

It seems correct to say that existence does play an important part in the concept of counting. However, it is not clear that numbers do mean precisely the same thing when applied to abstract and to concrete entities. There are difficulties arising from the application of numbers to either kind of entity, but it is important to notice that the difficulties are quite different in each case. The application of numbers to concrete things often presents us with paradoxes of constitution: Peter Unger's Problem of the Many, for instance, asks how it is possible to count large macroscopic objects since in the vicinity of any such object there are always indefinitely many other candidates differing only in the addition or exclusion of a few particles (411–67). It is much more straightforward to count a set of abstract objects such as ideal triangles, since vagueness in constitution is not possible and we can therefore easily identify what counts as a single triangle. On the other hand, the application of the notion of number to abstract things is complicated by ambiguity between particulars and universals: this has led to on-going debate about whether properties should be taken as particulars known as tropes or as universals inhering in every one of their instances. Concrete entities, on the other hand, do not face this problem as they can be particularized by spatial location.

The fact that quite different paradoxes arise from the application of number to concrete and to abstract entities is significant because the paradoxes seem to arise from the meaning of number. This gives us cause to think that perhaps numbers do not have exactly the same meaning when applied to the two kinds of entities. Of course, van Inwagen could argue that the different paradoxes arise not from a difference in the meaning of the numbers but from the different ways in which we apply one and the same meaning to different sorts of entities. However, this view seems less plausible if we consider the difficulties involved in using numbers to describe both abstract and concrete objects in the same context. If there were a single meaning of numbers deriving from a single meaning of existence for both abstract and concrete entities, we would presumably be able to understand arithmetical operations combining abstract and concrete entities with relative ease. But in fact, arithmetical operations seem to be applicable only within one framework or the other. We know how to think of three apples plus three apples; three apples plus three pears is not much more troublesome; and even three apples plus three tables can be visualized without difficulty. Similarly, we can understand the meaning of three opinions plus three opinions, though we start to have more difficulty understanding an operation like three opinions plus three possible worlds. Even the latter, however, is at least comprehensible if we conceptualize it as a total of six distinct ideas or thoughts. But we have real trouble if we try to do a sum like three apples plus three opinions. We simply do not have the resources to make sense of that kind of combination. If there were a univocal sense of existence grounding a univocal notion of number, we ought to be able to appeal to it—but the best we can do here is say that the total is six entities, which is not much more informative than simply saying that three plus three equals six. In fact, it seems clear that what we do in this case is simply ignore the objects concerned and carry out a numerical calculation. Thus in such cases we do not appeal to some univocal understanding of existence that applies equally to both concrete and abstract objects, we simply ignore the objects altogether and retreat to the mathematical formalism, which works even when it is being applied to nothing at all.

Van Inwagen's argument, then, backfires: if it is true that number is closely tied to existence, and it is also true that numbers are applied in two quite distinct ways to abstract and to concrete objects, it seems likely that there are two distinct senses of existence for abstract and concrete objects. Of course, van Inwagen could still maintain that there is a single meaning of existence which simply works differently when applied to two different kinds of objects, but this is still rather different from the univocal conception of existence that he initially argues for.

Van Inwagen's second argument concerns the use of the existential quantifier. The existential quantifier, he observes, has exactly the same truth conditions when applied to abstract objects as to concrete objects, and since the existential quantifier signifies existence, it follows that abstract objects and concrete objects are subject to exactly the same notion of existence.

As a first reply to this argument, we should observe that it is not entirely obvious that the existential quantifier signifies existence, since its truth conditions can be given without any consideration of whether the objects in the domain of quantification actually exist. Van Inwagen takes note of this and comments that "the meaning of the quantifiers is given by the phrases of English—or of some other natural language—that they abbreviate," and since the relevant sentences are clearly about existence, so is the quantifier (240). But this approach undermines his initial argument. For if the meaning of the quantifiers is not given by their truth conditions

but by the sentences they abbreviate, then the identical truth conditions for abstract and concrete objects do not imply that the quantifier has the same meaning for abstract and concrete objects. To ascertain this we would have to consult the English sentences being abbreviated to see if the meaning of "existence" is the same in sentences concerning abstract objects as in concrete ones—but this is precisely the point at issue.

Furthermore, the fact that the existential quantifier needs to be used with a domain of quantification reflects features of the English language, for as Carnap points out, existence claims in ordinary language come with a presupposition that we are working within some particular framework. The framework, together with its rules, provides a domain of quantification, so when we say "X exists" or "there is an X," our statements are true in virtue of the presence of X in the set of objects stipulated to exist by the rules of the framework. Superficially, this might suggest that existence claims do indeed have the same meaning whether we refer to abstract or to concrete entities, because no matter what the claim concerns, we can ascertain its truth simply by consulting the rules of the framework within which we work. But there will still be different meanings if the frameworks make use of very different rules. Since, as we have seen, the frameworks can be separated into two distinct sets, and since these distinct sets make use of very different rules, it seems that "existence" has two distinct meanings despite having the same truth conditions in all cases.

To support this analysis, we should note that it is not unprecedented for the same logical symbol to formalize widely varying concepts. The identity symbol is a good example. The identity relation does have the same formal characteristics wherever it is used (it is transitive, reflexive and symmetric) but usages differ significantly in other ways. Since Hume it has been recognized that identity is relative to sortal term: we have very different identity conditions for lumps of matter, biological systems, and persons. Even more striking is the distinction between synchronous identity (identity at one point in time) and diachronic identity (identity across time). This distinction is so significant that what may be taken as one of the definitive axioms of synchronous identity, Leibniz's Principle of the Indiscernibility of Identicals (X and Y have all their properties in common if they are identical) does not apply to diachronic identity, or at least not without significant revision of our concept of property possession, since on the face of it the same object can possess different properties at different times. Thus it is clear that logical symbols can capture only the formal characteristics of a property or relation, which do not provide an exhaustive description of concepts like identity or existence. It is therefore unproblematic to suggest that two quite different concepts of existence could be formalized by the same symbol.

VII. Conclusions

A consideration of Carnap's frameworks for ontological discourse leads us to observe that there are two distinct structures within which entities may exist. This suggests that there can be a single meaning for existence only if we have a single criterion which unites the two structures. However, although the existence conditions for both branches are related to mind-independence, mind-independence is very different in each branch: for concrete entities it is provided primarily by spatiotemporal location, while for abstract entities it draws upon a derivative concept of "location" in a relational space. We are therefore drawn to the view that there are two distinct senses of identity, one literal and a second more metaphorical. This approach not only explains linguistic features of existence attributions, but also provides strategies for dealing with ontological disputes over problematic entities like absolute space or future events.

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