

WHY IS THERE ANYTHING AT ALL?

Peter van Inwagen and E. J. Lowe

II—E. J. Lowe

I

In his highly stimulating paper, Peter van Inwagen invites us to consider *why there are any beings*. Van Inwagen uses the term 'being' as a synonym for 'concrete object' (p. 95), but he is silent on what 'concrete' means and offers no explicit definition of the term 'object'. One gathers, however, that he would not regard what he calls 'pure stuffs' and 'pure events' as concrete *objects*—though he thinks that such entities are metaphysically impossible anyway (see his footnote 2). My own view is that an 'object' is any item possessing determinate identity conditions, so that stars, animals, tables, battles, numbers and sets are all plausible candidates for membership of the category of objects (though whether any items of these kinds actually *exist* is another matter).¹ Amongst non-objects I include such items as waves (of the seaside variety), grins and facts. These are items which are candidates for existence (it makes perfect sense to say that there are grins on the boys' faces, or waves on the sea, or lots of facts that I don't know): but they cannot apparently be assigned determinate identity conditions in a principled and non-arbitrary way, and consequently it makes dubious sense to attempt to *count* items of these kinds. (How many facts did you learn in the last five minutes?) As for *concrete* objects, I take these to be objects which exist in space and/or time. (Very arguably, no object could exist in space without also existing in time, but the reverse is not true, since non-extended and non-located Cartesian egos are at least metaphysically possible.) To say that something 'exists in time' is, I suggest, to say that tensed predications of intrinsic properties are true of it—that it now has, did have or will have some intrinsic property. *Abstract* objects (in the sense of *non-concrete* objects)

1. See further my 'The Metaphysics of Abstract Objects', *Journal of Philosophy* 92 (1995), pp. 509–24.

are subjects only of tenselessly true predications, as far as their intrinsic properties are concerned—as when it is said that 4 is (tenselessly) the square of 2.²

Van Inwagen assumes—and I'm inclined to agree with him—that at least some abstract objects are necessarily existent, or exist in all possible worlds. But he goes on to say that 'if *everything* were an abstract object,... there is an obvious and perfectly good sense in which there would be nothing at all', adding: 'When people want to know why there is anything at all, they want to know why *that* bleak state of affairs does not obtain' (p. 96). I am happy, for the time being, to allow van Inwagen his sense of what it would mean for there to be 'nothing at all'. But a further consideration is this: van Inwagen seems to assume that, given that it makes sense to speak of abstract objects at all, it is at least intelligible to talk about a world in which *only* abstract objects exist. However, one might take the view that abstract objects necessarily depend for their existence upon concrete objects: and in that case, one would either have to give up the assumption that at least some abstract objects exist in every possible world or else have to conclude that at least some *concrete* objects exist in every possible world. Of course, the latter conclusion would be interesting, because it would imply that van Inwagen's 'bleak' state of affairs is impossible. It is pertinent to note here the following remark of van Inwagen's:

I can say only that it seems to me hopeless to try to devise any argument for the conclusion that it is a necessary truth that there are beings [= concrete objects] that is not also an argument for the conclusion that there is a necessary being. I simply have no idea of how one might even attempt that. (p. 96)

But from my immediately preceding comments one can extract a possible line of argument of precisely the sort that van Inwagen seems to find inconceivable. To wit: argue first that at least some abstract objects exist in all possible worlds (for instance, the natural numbers), and next that abstract objects always depend for their existence upon concrete objects; from this conclude that at least some concrete objects exist in all possible worlds (but not neces-

2. We have to allow that abstract objects *can* be subjects of true tensed predications, but only where these involve extrinsic or purely relational properties, as when it is said that 4 is such that I am now thinking of it. See further *ibid.* and also my 'Tense and Persistence', forthcoming.

sarily the *same* concrete objects in all worlds, and so not necessarily any 'necessary being'). I shall return to this line of argument in Part III. Before doing so, however, I want to comment briefly on the remainder of van Inwagen's paper.

II

I agree with van Inwagen that the attempt to argue that there is a necessarily existent being (concrete object) is doomed to failure, though not for the reason he gives. (I do not share his confidence in the validity of the Minimal Modal Ontological Argument, nor his apparent confidence in the truth of the second premise of his version of the cosmological argument.) However, having given up the hope of showing that a necessary being exists, van Inwagen tries something else much more novel: he tries to show that *there is a zero probability of there being nothing at all*. The argument has four premises: (1) There are some beings, (2) If there is more than one possible world, there are infinitely many, (3) There is at most one possible world in which there are no beings, and (4) For any two possible worlds, the probability of their being actual is equal. If there is just one possible world ('Spinozism'), then, by (1), it is necessary that there are some beings, and so the probability of there being none is 0. If there is more than one possible world, then, by (2), there are infinitely many, all of which are equiprobable (by (4)), so that each of these worlds has a probability of 0. Therefore, by (3), the probability of there being no beings is, once again, 0.

Van Inwagen surmises that premise (4) is the one that will be challenged—and, indeed, it does seem odd to suppose that, for example, a world consisting purely of pink elephants floating in custard is inherently no less probable than the world we actually find ourselves in! The rest of van Inwagen's paper is devoted to supporting premise (4). I shall not comment on this part of his paper in much detail, though I do have two general worries to voice and one more specific objection. First I observe that van Inwagen's premises (2) and (4) by themselves have the somewhat alarming consequence that the probability of this, the actual world is either 1 or 0. Hence, on van Inwagen's principles, if 'Spinozism' is false then it is as improbable as anything could be that we exist in the world as we actually find it. This is something which

devotees of the ‘Anthropic Principle’ in certain of its forms would surely want to challenge very forcefully, and it is not just obvious that they are mistaken.³

Secondly, I remark that, to the extent that van Inwagen’s defence of premise (4) appeals to our alleged ‘capacity for determining a priori that some states of some systems are of equal probability’ (p. 103), it looks rather vulnerable. The assumption that we have such a capacity has notoriously given rise to paradox in the past, especially in cases involving an infinite range of alternative possibilities. For instance, there is Bertrand’s paradox, posed by the following problem: if a chord of a circle is drawn at random (that is, in any one of a set of exhaustive and mutually exclusive equiprobable alternative ways), what is the probability that its length will be less than that of the side of the inscribed equilateral triangle? The trouble is that there are several *different* but equally plausible ways of describing the supposed set of equiprobable alternatives, each of which is associated with a different answer to the problem.⁴ Van Inwagen may think that no similar problem could arise in the case of possible worlds: but that seems to presuppose that ‘worlds’ have well-defined identity conditions, such that collectively they constitute a unique way of dividing up the ‘space’ of logical-cum-metaphysical possibility into an infinite set of exhaustive and mutually exclusive alternatives—and this is something which I shall call into question in Part IV.

But, in any case, there is another objection one can raise against van Inwagen’s argument, this time directed against premise (3). Van Inwagen defends (3) on the grounds that

[T]here is nothing in virtue of which two worlds that contained only abstract objects could be different. If two worlds are distinct, there must be some proposition that is true in one and false in the other. If, therefore, there are *two* worlds in which there are no beings, there must be some proposition such that both that proposition and its denial are consistent with there being no concrete beings... But it’s very hard to see how there could be a proposition that met this condition—much less to come up with a (possible) example of one. (p. 101)

3. For discussion, see J. D. Barrow & F. J. Tipler, *The Anthropic Cosmological Principle* (Oxford: Clarendon Press, 1986).

4. See J. M. Keynes, *A Treatise of Probability* (London: Macmillan, 1921), pp. 47–8.

However, even allowing that there is *a* world which contains only abstract objects—something which I shall challenge in Part III—it is unclear how we could justifiably claim that there is only *one* such world: first, because this again presupposes that worlds have well-defined identity conditions, and secondly because it seems to presuppose that all abstract objects are necessary existents. If some abstract objects are only contingent existents, then van Inwagen must allow that they exist in some worlds but not others—but then why not in some worlds but not others in which only abstract objects exist? (We know that there *can* be abstract objects which are contingent existents, for *sets* are abstract objects and are contingent if their members are, since they exist only if their members do.)

III

Now let me return to the quite different approach, canvassed earlier, to the question of why there is anything at all. Recall that, as van Inwagen understands this question, it is the question of why his ‘bleak’ state of affairs doesn’t obtain—this being a world in which there are no concrete objects, but at most only abstract objects. Now, suppose we could show that there *couldn’t* be a world containing only abstract objects, perhaps by arguing that abstract objects necessarily depend for their existence upon concrete objects: what would follow? Clearly, it would follow that van Inwagen’s ‘bleak’ state of affairs couldn’t obtain. And yet, in a perfectly clear sense, this wouldn’t suffice to show that it was *necessary* for something concrete to exist: for we wouldn’t have foreclosed the possibility that *nothing at all*—nothing either concrete or abstract—might have existed. To foreclose that possibility, it seems, we would need also to show that at least some objects, abstract or concrete, exist in every possible world. For instance, it would suffice to show that the natural numbers exist in every possible world. So here is a line of thought worth exploring: on the one hand show that certain abstract objects, such as the natural numbers, exist of necessity, and on the other show that these objects depend for their existence upon there being concrete objects of some sort.

One way of pursuing this line of thought is as follows. We could begin by contending that the only possible abstract objects are *universals* and *sets*. Sets, of course, are not universals but

particulars.⁵ I myself find this contention plausible, and certainly it has the attraction of being parsimonious. From this initial contention it would follow that *numbers*, assuming them to exist, are themselves either universals or sets. That, however, is in accordance with mainstream opinion amongst mathematical realists. Most hold that numbers are sets. I myself hold that they are universals. My view is that numbers are *kinds* of sets—that is, kinds whose particular instances are sets of appropriate cardinality.⁶ Thus, on this account, the number 2 is the kind of two-membered sets.

The next step would be to defend an ‘Aristotelian’ or ‘immanent’ realist account of universals, which requires them to have particular instantiations. I shall not undertake such a defence here, but I do believe that one is available.⁷ Now, if immanent realism is correct, the only universals which could in principle exist in a world devoid of concrete particulars would be universals whose instances were abstract particulars. And we have assumed that the only abstract particulars are *sets*. Sets, however, can only exist in worlds in which *their members* exist. The only apparent exception to this claim is provided by *the empty set*, because it doesn’t *have* any members. But the empty set seems to me as good an example as we can get of a purely fictional entity, so I shall be assuming that no such object exists.⁸ As a consequence of this, I must reject the existence of so-called ‘pure’ sets, that is, sets which require for their existence only the existence of other sets. However, if only ‘impure’ sets exist, then *non-sets* must exist in addition to sets. Of course, *universals* are non-sets, but there is an

5. The thrust of my argument will not be deflected if, as some few philosophers hold, sets are in fact *universals* rather than particulars. It’s true, incidentally, that some philosophers suggest that sets some or all of whose members are concrete objects are themselves *concrete objects*: see, e.g., Penelope Maddy, *Realism in Mathematics* (Oxford: Clarendon Press, 1990), p. 59. But this complication, too, does not threaten to undermine the argument which follows—so I shall be assuming that all sets are in fact *abstract particulars*.

6. See further my ‘Are the Natural Numbers Individuals or Sorts?’, *Analysis* 53 (1993), pp. 142–6.

7. Note that I take ‘Aristotelian’ or ‘immanent’ realism about universals only to imply that actually existing universals must actually be instantiated, not that they must in some sense be ‘wholly present’ in their instances, at least if ‘being wholly present in’ is supposed to denote some sort of *spatial* property or relation. Note, too, that I interpret immanent realism as implying, in the case of universals whose instances are concrete particulars, only that such instances exist at *some* time and place.

8. It is not clear to me that the empty set even has well-defined identity conditions. A set has these only to the extent that its members do—but the empty set has none. *Many* things have *no* members: what makes just *one* of these qualify as ‘the empty set’?

obvious difficulty in supposing that there might be a world in which the only non-sets are universals *whose only particular instances are sets*. For in such a world the sets depend for their existence upon the universals and the universals depend for their existence upon the sets, which contravenes the asymmetry of existential dependency.⁹ I conclude that there cannot be a world which *only* contains universals and sets, and hence cannot be a world in which only abstract objects exist. However, the *numbers* are abstract objects, and arguably exist in every possible world—whence it follows that concrete objects must exist in every possible world.

But there is an obvious *prima facie* problem with this conclusion: in a world containing only finitely many concrete objects (if such a world is possible), it looks as though there wouldn't be 'enough' concrete objects to secure the existence of all the natural numbers. (On my own account of numbers, each number is a universal which must have at least one particular instance, in the form of a set of appropriate cardinality.) And yet the idea that only the first N natural numbers might exist in a certain world is hard to swallow. Surely, if any natural number exists, they all do. However, this need not be a problem, if one can distinguish between an object and its unit set: for in that case, it suffices that just *one* concrete object should exist in order for an infinite number of particulars to exist. For example, suppose that that single concrete object is *myself*: then, in addition to myself, we have my unit set, the unit set of my unit set, and so on to infinity. Thus, each of the natural numbers has a set of appropriate cardinality instantiating it: for instance, the number 2 is instantiated by the set whose members are myself and my unit set. It appears, then, that we need not worry about there being worlds containing some, but not enough, concrete objects for (all) the natural numbers to exist in those worlds. (What if we *can't* distinguish between an object and its unit set? Then a world containing at least *two* concrete objects contains a denumerable infinity of particulars. Call the two concrete objects a and b . Then a third particular is the set $\{a, b\}$, a fourth particular is the set $\{a, \{a, b\}\}$, a fifth is the set $\{a, \{a, b\}, \{a, \{a, b\}\}\}$, and so on. At no stage do we need to appeal to unit sets.)

9. See further my 'Ontological Dependency', *Philosophical Papers* 23 (1994), pp. 31–48.

However, we still haven't shown that the natural numbers *do* in fact exist in every possible world. But what would it be for them *not* to exist in a world? A world in which they didn't exist would be a world in which, for instance, it was not true that 2 plus 2 equals 4. Of course, some philosophers of mathematics believe that this is not really true even in *this* world, because they don't think that mathematical objects exist anyway.¹⁰ It may not be too difficult to live with the thought that none of mathematics is true—it might still be *useful* (a useful fiction). However, someone like myself, who believes in universals, and furthermore believes that the natural numbers *are* universals, is not going to be persuaded by a fictionalist account of mathematics. I firmly believe that the natural numbers do really exist in this, the actual world. The question then is: given that I believe this, can I make sense of the thought that these very objects, the natural numbers, do *not* exist in some possible world? To suppose so is to suppose that there *are* mathematical truths in this world which do not hold in some other world. But such a position is doubtfully coherent. It may be coherent to hold, with the fictionalist, that mathematical propositions are *never* true, in this or any other world. What seems hard to make sense of is the thought that mathematical propositions are only *contingently* true. But if they are necessarily true, appropriate truth-makers for them must exist in every possible world—and on my sort of account of the nature of the natural numbers, this means that *concrete* objects, too, must exist in every possible world.

IV

It might be thought that our task is in fact rather easier than I have represented it as being, for the following reason. It might be held that a world in which there is literally *nothing at all*—no concrete or abstract objects whatever—is *logically* impossible, because even a world containing no space and time and no mathematical objects (numbers and sets) would at least contain *facts*: for instance, the fact that there were none of these other things. If it could then be argued that facts necessarily contain universals as constituents, then it could be argued that any world containing

10. See, e.g., Hartry Field, *Science without Numbers* (Oxford: Basil Blackwell, 1980).

facts must contain universals and it could thus be concluded, via an appeal to 'Aristotelian' realism, that particulars would have to exist in that world, and that some of these would have to be concrete particulars (on the grounds that the only possible abstract particulars are sets, and that these must be 'impure'). This line of argument would avoid any special appeal to mathematical objects and the necessity of mathematical truths. For a world in which nothing is the case (in which there are no facts) would be no world at all. Now, the problem with this line of argument, I think, is that it implicitly treats facts as if they were themselves *objects* of a certain kind (complex objects containing other objects, such as universals, as constituents). But that facts are *not* objects is a claim I made right at the outset, and I want to stick to it.

Wittgenstein famously said that the world is the totality of facts, not of things (it is 'everything that is the case').¹¹ On this view, it seems, no 'possible world' (including the 'actual' world) is itself an *object*—*pace* van Inwagen (p. 95). Is that correct? We have to distinguish, perhaps, between the terms 'universe' and 'world'. But if worlds are totalities of putative facts ('maximal possible states of affairs') and facts themselves are not *objects*, then is it right to conclude that worlds likewise do not have well-defined identity conditions? I think so. It might be urged that two worlds differ numerically if and only if they differ in one or more facts.¹² But if we cannot *identify* facts, this account of the supposed identity conditions of worlds will not do. For what is being proposed is that two worlds differ numerically if and only if there are certain facts in one of them which aren't amongst the facts in the other, and this assumes that facts themselves have well-defined identity conditions (since what is being proposed is that some of the very *same* facts contained in one world will fail to be contained in another, numerically distinct world).

Now, is the fact that Brutus killed Caesar the same fact as the fact that Caesar was killed by Brutus? Is it the same fact as the fact

11. See Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, trans. D. F. Pears & B. F. McGuinness (London: Routledge & Kegan Paul, 1961), p. 7.

12. Van Inwagen suggests something very like this when he says: 'If two worlds are distinct, there must be some proposition that is true in one and false in the other' (p. 101). What I have to say about 'facts' could perfectly well be rephrased in terms of 'propositions', facts and propositions being opposite sides of a single coin.

that Brutus murdered Caesar? How do we decide?¹³ We might be tempted to say: the fact that *P* is the same fact as the fact that *Q* if and only if it is (metaphysically) *necessarily* the case that *P* iff *Q*. But not only does this have the queer consequence that the fact that $2 + 2 = 4$ is the same fact as the fact that $2 + 3 = 5$, it is in any case (for someone committed to possible worlds) just equivalent to saying: the fact that *P* is the same fact as the fact that *Q* if and only if *in every possible world* it is the case that *P* iff *Q*. So we have come round in a tight circle, first trying to specify the identity conditions of worlds in terms of an equivalence relation on facts and then trying to specify the identity conditions of facts in terms of an equivalence relation on worlds. Indeed, this circle is as tight as it could be if, as we have been assuming, ‘worlds’ just *are* ‘totalities’ of *facts*. My conclusion is that possible worlds—whether they exist or not (and I’m inclined to be sceptical)—are certainly not *objects*, because they lack well-defined identity conditions. That appears to pose a special problem for van Inwagen, because if the ‘space’ of logical-cum-metaphysical possibility cannot be unambiguously divided up into a unique set of exhaustive and mutually exclusive alternatives, independently of our choice of descriptions for those alternatives, then it makes no sense to assign objective degrees of probability or chance to worlds, conceived as such alternatives. And from that it follows that it makes no sense to say that there is a probability of 0 of there actually being a world containing no concrete objects.¹⁴

13. From the seemingly trivial premise ‘The fact that *P* = the fact that *P*’, one can apparently infer ‘The fact that *P* = the fact that *Q*’, for any true sentences ‘*P*’ and ‘*Q*’, given that ‘the fact that *P*’ does not change its reference upon substitution of logically equivalent sentences for ‘*P*’ nor upon substitution of co-referring terms for terms in ‘*P*’. Just substitute for ‘*P*’ the logically equivalent sentence ‘ $a = (1x)(x = a \ \& \ P)$ ’ and then substitute for ‘ $(1x)(x = a \ \& \ P)$ ’ in this the co-referring term ‘ $(1x)(x = a \ \& \ Q)$ ’; finally, for ‘ $a = (1x)(x = a \ \& \ Q)$ ’ substitute the logically equivalent sentence ‘*Q*’. There are various possible ways to avoid this conclusion—for instance, by denying that definite descriptions are referring terms: see Stephen Neale, ‘The Philosophical Significance of Gödel’s Slingshot’, *Mind* 104 (1995), pp. 761–825. But one lesson which I am inclined to draw is precisely that facts *do not have well-defined identity conditions*, so that the initial premise is untenable because not well-formed. That, certainly, seems preferable to concluding that if *there are* facts then there is only *one* fact (the ‘Great Fact’).

14. I am very grateful for comments received when a preliminary version of this paper was read to the Philosophy Senior Seminar at the University of Leeds.