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Negative existentials, omniscience, and cosmic luck

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Abstract. Suppose there are possible worlds in which God exists but Anselm does not. Then (I argue) there are possible worlds in which Anselm does not exist, but God cannot even entertain the thought that he does not. In such worlds Anselm does not exist, but God does not know that. This, I argue, is incompatible with (a straightforward construal of) the doctrine of God's essential omniscience. Considerations involving negative existentials also call into question a certain picture of creation, on which God chooses which particular (possible) individuals to create. They suggest that there is an element of brute contingency about which individuals exist.

Mediaeval philosophical theologians held – so far as I know without exception – that God was essentially omniscient. In what follows, I shall argue that the existence of individuals whose non-existence is compossible with God's existence raises serious difficulties for the doctrine of God's essential omniscience. If there are individuals that might not have existed even though God did, then – I shall try to show – questions arise about whether God would have been omniscient, if He had existed, but they hadn't.

I

Anselm of Aosta (and Bec, and Canterbury) might never have existed. If he hadn't, would anyone have been able to know, or believe, or even entertain the thought that he didn't exist?

In the 1960s, many philosophers held something like the following view: each proper name is synonymous with some definite description built up from quantifiers and general predicates.[1] 'Anselm of Aosta' might for example be synonymous with 'the boundlessly imaginative philosophical theologian who invented a new kind of argument for God's existence, and was the first to argue explicitly that events have temporal parts, but substances do not'. Also, since 'Anselm' is synonymous with a definite description of the form, 'the F', and since existential judgements involving definite descriptions are to be analysed in a certain way, the judgement that Anselm does (or does not) exist is the judgement that there is (or is not) exactly one thing which is F.[2]

[1] For a view like this one, though *subtilior*, see J. Searle, 'Proper Names', *Mind* **67** (1958), pp. 166–73.
[2] I ignore complications involving tense.

If this view were correct, it clearly would be possible for someone to know, and *a fortiori* to believe, and *a fortiori* to entertain the thought that Anselm did not exist, even if he never had. It could perfectly well have happened that Anselm never existed, and I knew that there wasn't exactly one boundlessly imaginative philosophical theologian who invented a new kind of argument for God's existence, and was the first to argue explicitly that events have temporal parts, but substances do not.

In fact, though, for reasons adduced by Saul Kripke and Keith Donnellan, 'Anselm' is not synonymous with 'the boundlessly imaginative philosophical theologian who …', and the judgement that Anselm existed is not the judgement that there was exactly one boundlessly imaginative philosophical theologian who … Someone could perfectly coherently make the first judgement, and reject the second. (They might for example hold that Anselm existed, but someone else invented the ontological argument.) Also, someone who made both the judgements in question might be right in making the first, and wrong in making the second (if Anselm did not in fact invent the ontological argument).[3]

A defender of the account of proper names and existential judgements under consideration might object that these considerations show only that the name 'Anselm' is not synonymous with the definite description, 'the boundlessly imaginative philosophical theologian who …'; they are perfectly compatible with that name's being synonymous with some other definite description. Fair enough; but proponents of 'descriptivist' accounts of proper names have generally supposed that a definite description synonymous with a particular name can always ultimately be 'unpacked' in purely general terms – that is, in terms that do not presuppose reference to any particular individuals. So if for example 'Aristotle' is synonymous with 'the author of the *Nicomachean Ethics* and Alexander's most famous tutor', there must be some other definite description synonymous with 'Aristotle' that does not include the names 'Nicomachean Ethics' and 'Alexander', or demonstratives such as 'that book on ethics' or 'that Macedonian ruler'. If, however, 'the F' is a definite description that can be unpacked in purely general terms, it seems that 'Anselm exists' and 'Exactly one thing is F' must have different truth-conditions, and thus express different judgements. A standard but effective way to make this point is by appeal to symmetrical worlds. Suppose that, unbeknownst to us, the world was (eternally) perfectly symmetrical, so that Anselm (and everyone else on our side of the universe) had a perfect duplicate on the other side of the universe's axis of symmetry.

[3] See Kripke's argument to the effect that, even if most people would identify Godel as the man who discovered the incompleteness of arithmetic, it is neither necessary nor knowable *a priori* that if Godel exists, there is exactly one person who discovered the incompleteness of arithmetic (S. Kripke, 'Naming and Necessity', in D. Davidson and G. Harman (eds.), *Semantics of Natural Language* (Dordrecht: D. Reidel, 1972), pp. 293–6). See also K. Donnellan, 'Proper Names and Identifying Descriptions', *ibid.* pp. 356–79.

Then, as long as 'the F' is a description that can be unpacked in purely general terms, 'Anselm exists' would be true, but 'Exactly one thing is F' would be false (since two things – Anselm and his opposite number – would be F).

What makes some beliefs *about Anselm*? For the descriptivist, it is the fact that those beliefs involve a certain concept – the concept expressed by the definition, unpackable in purely general terms, that is synonymous with the name 'Anselm'. If (as seems clear) this is a bad answer, what would a better one be?

II

Both Kripke and Donnellan have suggested that what makes some beliefs about (say) Anselm, is the fact that those beliefs involve a concept that is causally or historically related in the right way to Anselm himself. For Kripke, a historical connection is crucial in explaining why a given belief is about an individual (such as Anselm) or a stuff (such as gold), or a biological kind (such as *bombus terrestris*):

> If a story is found describing a substance with the physical appearance of gold, one cannot conclude on that basis that it is talking about gold; it may be talking about fool's gold. What substance is being discussed must be determined as in the case of proper names: by the historical connection of the story with a certain substance. When the connection is traced, it may well turn out that the substance dealt with was gold, fool's gold, or something else. Similarly, the mere discovery of animals with the properties attributed to unicorns would by no means show that these were the animals the myth was about: perhaps the myth was spun out of whole cloth … In that case, we cannot say that the unicorns of the myth actually existed; we must also establish a historical connection that shows that the myth is *about* these animals.[4]

In this passage Kripke may have in mind statements rather than beliefs. I take it, though, that he would agree that whether or not a belief is about an individual (or a stuff, or a kind) depends on the existence or non-existence of the right sort of historical connection between the (relevant concept involved in the) belief and the individual (or stuff, or kind).

Suppose that a belief is about an individual only if there is the right sort of historical connection between the belief and that individual. Suppose also that this is a necessary truth about what it is for a belief to be about an individual. Now assume that Anselm had never existed, and God had known that. If He had known that Anselm didn't exist, He would *a fortiori* have believed that Anselm didn't exist. And if He had believed that Anselm didn't exist, it seems, He would have had some beliefs about Anselm. (How could it be that God believed Anselm didn't exist, but had no beliefs at all about Anselm?) But – we are supposing – God could not have had any beliefs about Anselm, in the absence of the right sort of historical connection between certain of his beliefs and Anselm. And there could not have been

[4] 'Addendum to "Naming and Necessity"', *Semantics of Natural Language*, p. 764.

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such a connection, unless Anselm had existed (there cannot be a historical connection between a belief and an individual, if that individual does not so much as exist). So if Anselm had never existed, and God had known that Anselm didn't exist, Anselm would have existed. This entails that if Anselm had never existed, God would not have known that Anselm didn't exist. Indeed, He wouldn't have even been able to entertain the thought that Anselm didn't exist. This is on the face of it incompatible with the idea that God is essentially omniscient. If *Anselm's never existing and God's not knowing that (even though He exists)* is a possible state of affairs, how could God be essentially omniscient?

III

Here someone might object that it cannot be true both that

(1) If God had believed that Anselm did not exist, He would have had beliefs about Anselm.

and that

(2) A belief can be about an individual only if the individual is there to be historically connected with the belief.

– even if, given the elasticity of the concept of aboutness, we could count either (1) or (2) as true. After all, the objector might say, God believes that Santa Claus does not exist. So either His belief isn't about Santa Claus, or its being about Santa Claus does not entail Santa Claus's existence. *Pari ratione*, the objector might conclude, if God did believe that Anselm did not exist, either His belief wouldn't be about Anselm, or its being about Anselm would not entail Anselm's existence. And if Anselm had never existed, God would believe that Anselm did not exist – though His belief would not be about Anselm in any sense of 'about' that entailed Anselm's existence.

A champion of the causal-existential account of the aboutness of singular beliefs might naturally respond to this objection as follows: where 'n' is an empty name – that is, a name that does not refer to anything that actually exists – it is not in general true that if n had never existed, *S* would not have believed that n does (or does not) exist. Where 'n' is a non-empty name, it is (always) true. Suppose that Nora believes in Santa Claus, and has just told Rachel that she does. Rachel tells Nora that Santa Claus does not exist. Nora anwers that he must exist: lots of people believe in Santa Claus, and if Santa Claus did not exist, nobody would believe he did.

Rachel could truthfully reply that Nora's counterfactual is false: Santa Claus does not exist, and yet some people (e.g. Nora) believe that he does. So it is not true that

(a) If Santa Claus had never existed, nobody would have believed that Santa Claus did (or did not) exist.

But – the defender of the causal-existential account will say – it is true that

(b) If Anselm had never existed, nobody would have believed that Anselm did (or did not) exist.

Why should (a) and (b) have different truth-values? The defender of the causal-existential account could answer as follows: (b) says that if a particular individual had never existed (the particular individual who is the referent of the name 'Anselm'), then a certain (existential) proposition about that individual would not have been believed by anyone (and neither would that proposition's negation). (b) is true, because nobody can believe a proposition about an individual without being historically connected to that individual, and nobody can be connected to an individual that does not exist. In contrast to (b), (a) does not say that if a particular individual had never existed (the particular individual who is the referent of the name 'Santa Claus'), then a certain (existential) proposition about that individual would not have been believed by anyone (and neither would that proposition's negation). For there is no particular individual – no *actuale*, no *possibile* – that 'Santa Claus' is a name of, and the proposition expressed by 'Santa Claus exists' is about. (Various actual or merely possible individuals might have had Santa-Claus-ish properties, and there doesn't seem to be anything in virtue of which just one of those individuals would have been Santa Claus.) So (a), unlike (b), is false.

To recap: a certain argument, relying on a causal-existential account of aboutness, purports to show that God couldn't know that singular negative existentials were true, if they were true, and hence cannot be essentially omniscient. The argument cannot be dismissed by saying that, just as God does know that Santa Claus does not exist in the actual (Santa-Claus-less) world, He would know that Anselm didn't exist in a possible Anselmless world. For it is not clear that knowing Santa Claus doesn't exist (in the actual world) is relevantly similar to knowing Anselm doesn't exist (in a merely possible world).

A different (and more promising way) to oppose the argument against God's essential omniscience under discussion would be to challenge directly the premiss that aboutness requires connection. It is hard to deny that the examples discussed by Kripke, Donnellan *et alii* show that our beliefs about particular individuals typically owe their aboutness to their connection with those individuals. But this could be true, even though it was not a necessary truth that beliefs about a particular individual are historically connected with that individual. And one could make good the claim that it was not a necessary truth, if one could find a (possible) case in which a belief is about an individual with which it is not historically connected.

IV

One way of doing this would be to construct a series of possible cases. In each of the cases (it would be argued) someone would have a belief about an individual – say, the belief that Neptune is a planet. In the first of the cases, there would be the usual sort of historical connection between the belief and the planet Neptune. In the last of the cases, however, the historical connection with the planet, and the planet itself, would be absent. It might work like this:

> *Case 1*: On the basis of his observations of the orbit of Uranus, Leverrier comes to believe that there is an eighth planet from the sun, even though he cannot see it through his telescope. At a later time, when telescope technology improves, the eighth planet is sighted. The first astronomer to sight it introduces the name 'Neptune' for it. The name is passed on to others, and ultimately to the elementary school teacher who tells me that Neptune is the eighth planet from the sun.

In case (1) I come to believe that Neptune is a planet, and my belief that Neptune is a planet is clearly historically connected with Neptune. (Neptune enters into the explanation of how I come to believe that Neptune is a planet.)

> *Case 2*: As in Case (1), observations of the orbit of Uranus lead Leverrier to believe there is an eighth planet from the sun. In spite of his inability to see it through the telescope, Leverrier introduces the name 'Neptune' for the (postulated) eighth planet, fixing the reference of 'Neptune' via the description, 'the planet responsible for such-and-such perturbations in the orbit of Uranus'.[5] At this point, Leverrier has acquired a belief that he would express (if he spoke English) by the sentence 'Neptune is a planet'.

Let us suppose that the name 'Neptune' was in fact introduced in the way described in case (1) – ostensively, by someone who sighted it through the telescope. Can we then say (using our ostensively introduced name 'Neptune') that in possible case (2), Leverrier knows sight-not-yet-seen that Neptune is a planet? There seems no obvious reason to suppose not.[6]

[5] For a discussion of reference-fixing, and of how it might work in the Neptune case, see S. Kripke, 'Naming and Necessity', *ibid.* p. 276 and n. 33, p. 347.

[6] Keith Donnellan has argued to the contrary, but the arguments seem to consist mainly of appeals to intuitions I do not find compelling. See his 'The Contingent A Priori and Rigid Designators', in French *et alii* (eds.), *Contemporary Perspectives in the Philosophy of Language* (Minneapolis: University of Minnesota Press, 1979), pp. 45–60 and especially pp. 53–4. In discussing a case substantially like case (2), Donnellan says that he is 'inclined to say' Leverrier wouldn't know that Neptune was the cause of the perturbations of the orbit of Uranus. This somewhat guarded assertion suggests that the verdict of Donnellan's own intuitions on this question are not entirely clear.

In case (2), presuming Leverrier does have the belief that Neptune is a planet, that belief is historically connected with Neptune (which caused the perturbations that caused the observations that (we are supposing) led Leverrier to believe that Neptune is a planet.

> *Case 3*: Neptune is gradually formed from many smaller bits of matter moving in approximately the same orbit as each other (and approximately the same orbit that Neptune will move in). Shortly before the bits of matter begin to coalesce, they are observed by alien astronomers. The alien astronomers, who know a great deal about planet formation, ascertain that a planet of Neptune's mass, size, shape, location, and so on will soon be formed. They introduce a name, 'Zblot,' fixing its reference via the description, 'the planet that will form from such-and-such orbiting bits of matter'. The alien astronomers acquire a belief which – if they knew enough English – they could express by the sentence 'Zblot is planet'.

Do the alien astronomers in case (3) believe that Neptune (tenselessly) is a planet? They do not call Neptune 'Neptune' of course, but that doesn't seem to rule out their believing that Neptune is a planet. (We wouldn't reject the claim that the first inhabitants of Nepal believed that Mount Everest was a sacred mountain simply on the grounds that they did not call Mount Everest 'Mount Everest'.) Moreover, if – as I have suggested – there is no obvious reason to withhold attribution of the belief that Neptune is a planet to Leverrier in case (2), there seems likewise no obvious reason to withhold attribution of that belief to the aliens in case (3): cases (3) and (4) do not seem fundamentally different.[7]

Supposing that the alien astronomers in case (3) do believe that Neptune is a planet, is their belief historically connected with Neptune? That depends on how narrowly or broadly we understand the notion of a historical connection. It is certainly not the case that Neptune appears in the causal history of the aliens' acquisition of the relevant belief.

> *Case 4*: Case (4) is like case (3), except that shortly after the alien astronomers acquire the belief that Zblot is a planet, a rogue astronomical object from outside the solar system (say, a black hole moving at high speed) suddenly arrives and prevents Neptune from ever being formed.

It seems plausible that the aliens in case (4) have the same beliefs as the aliens in case (3): if the former believe that Neptune is a planet, so do the latter. If the aliens in case (4) do believe that Neptune is a planet, then it is possible to believe that Neptune is a planet, even though one's belief is not

[7] Though this might be denied by someone who thought that present individuals, and perhaps past individuals are real, while future individuals are not.

historically connected with Neptune, and even though Neptune never has existed, and never will exist.

Here someone might object: in case (3) the aliens acquire a name for Neptune ('Zblot') via the reference-fixing description, 'the planet that will form from such-and-such orbiting bits of matter'. They accordingly are in a position to have beliefs about Neptune, and in particular to believe that Neptune is a planet. In case (4) the aliens' attempt to fix the reference of 'Zblot' misfires, since nothing satisfies the definite description intended to fix the reference of 'Zblot'. Hence the aliens do not acquire a name for Neptune, and are not in a position to believe that Neptune is a planet.

There do seem to be circumstances in which nothing satisfies a purportedly reference-fixing description, and as a result what was introduced as a name isn't really a name for anything. In a Father Brown story called 'The Absence of Mr. Glass', someone (call him X) comes to believe that a man on the other side of a wall (call him Y) is addressing a certain Mr. Glass. In fact, Y is not addressing anyone. He is practising his juggling, and every time he drops a glass he says to himself, 'missed a glass'. Suppose that X had wanted to have a code name for the supposed Mr. Glass (perhaps out of a desire to be able to talk discreetly about Mr. Glass in Y's presence). And suppose that he had introduced the name 'Bart' and attempted to fix its reference with the following formula: 'Bart shall be the man Y was addressing as "Mr Glass"'. In that case, I am inclined to say, 'Bart' isn't a name for anyone (or anything), and X's being in possession of the (would-be?) name 'Bart' does not enable him to have beliefs about anyone (or anything).

Intuitively, though, the 'Bart' case is very different from case (4). There is nothing clearly wrong with saying that in case (4) the aliens have succeeded in introducing a name for a particular individual – an actually existing particular individual (Neptune) – even though they have not succeeded in introducing a name for anything that exists in the counterfactual situation described in case (4).

Moreover, it seems we could modify case (4) in such a way that the aliens' attempt to fix the reference of 'Zblot' no longer obviously involved any mistakes on their part. They might for example introduce the name 'Zblot' with this formula: 'Zblot shall be the planet that will be formed from such-and-such orbiting bits of matter, rogue astronomical objects and the like *non obstante*'. In this connection, it is interesting to note that Nathan Salmon has argued that we can introduce names that we know refer to *inactualia*, via a Kripkean reference-fixing description, as long as the description operator includes *inactualia* in its range. He invokes Kit Fine's authority in arguing that there is nothing metaphysically objectionable about description operators or quantifiers including *inactualia* in their range, inasmuch as 'possibilist' quantification can be defined in terms of standard modal operators, actualist quantifiers ranging over individuals and worlds, and a

realization predicate.[8] If Salmon is right, then the aliens could have introduced 'Zblot' as a name for Neptune, even if they had known that, as a matter of fact, the planet that would have formed if not for the rogue astronomical object, never would exist, on account of the rogue astronomical object.

Perhaps the point I want to make is better put in terms of concepts than in terms of names: couldn't the aliens in case (4) be said to have a concept of Neptune, and thus to have beliefs about Neptune – including the belief that Neptune is a planet?

V

In the course of defending a certain sort of externalism about beliefs, Tyler Burge writes:

> It is logically possible for an individual to have beliefs involving the concept of water … even though there exists no water.[9]

He goes on to suggest that knowledge of chemistry might afford an individual access to the concept of water, even in a world without water. Though he does not say a great deal about how this might work, the following seems a natural suggestion: a chemist with concepts of hydrogen and oxygen (which we may suppose do exist in the chemist's world) and a good deal of knowledge of molecular chemistry, might have a concept of the substance with such-and-such properties that would be produced if hydrogen and oxygen were combined in certain proportions. The idea would be that, inasmuch as the chemist's concept of the compound substance was 'anchored to' the concepts of hydrogen and oxygen, there would be good enough reason to consider it a concept of water, rather than a concept of some other similar substance (such as Hilary Putnam's XYZ).[10]

Now if our hypothetical chemist has beliefs involving the concept of water, it seems that she has beliefs about water – for example, the belief that water is made of hydrogen and oxygen. So we have an argument for the view that beliefs can be about a particular kind of stuff without being historically connected with (any instances of) that kind of stuff, and without even 'sharing a (possible) world with' (any instances of) that kind of stuff.

Moreover, the argument apparently generalizes to cover composite individuals as well as compound substances. Just as water is what you get if you

[8] See N. Salmon, 'Existence', in *Philosophical Perspectives I, Metaphysics* (Atascadero: Ridgeview Press, 1987), p. 94 and notes 10 and 19; and Kit Fine, 'Prior on the Construction of Possible Worlds and Instants', in A. N. Prior and K. Fine, *Worlds, Times, Selves* (Amherst: University of Massachusetts Press, 1977), pp. 116–61.

[9] T. Burge, 'Other Bodies', in Woodfield, ed., *Thought and Object* (Oxford: Clarendon Press, 1982), p. 114.

[10] XYZ is a substance that looks, tastes, etc. very much like water, but has a completely different chemical composition. See Putnam's 'The Meaning of "Meaning"', in K. Gunderson, (ed.), *Language, Mind, and Knowledge* (Minneapolis: University of Minnesota Press, 1975).

put together certain elements (hydrogen and oxygen) in the right way, Anselm is who you get if you put together certain gametes (the ones Anselm actually came from) in the right way. So if a hypothetical chemist (acquainted with hydrogen and oxygen) could have a concept of water, even though there never had been and never would be such a thing, it seems that a hypothetical biologist (acquainted with the gametes that Anselm came from) could have a concept of Anselm, even if there had never been and never would be such a person. If our hypothetical chemist could entertain the thought that, or believe or know that water is a liquid, or does not exist, our hypothetical biologist could entertain the thought that, or believe or know that Anselm is human, or does not exist.

In fact, though, there is a problem with this whole line of reasoning. Suppose we grant that our hypothetical chemist has a concept of H_2O, and believes that H_2O is made of hydrogen and oxygen, is a liquid at 50° centigrade, and so on. It does not in any obvious way follow that she believes that water is made of hydrogen and oxygen, or that water is a liquid at 50° centigrade. For the belief that H_2O is made of hydrogen and oxygen, or the belief that H_2O is a liquid at 50° centigrade, is on the face of it a different belief from the belief that water is made of hydrogen and oxygen, or the belief that water is a liquid at 50° centigrade. After all, someone who did not realize that water (the stuff that comes out of the taps, the stuff we are mostly made of, etc.) was H_2O, and was confused about the properties of H_2O, might believe that water was a liquid at 50° centigrade, while H_2O was a gas at that temperature (just like hydrogen and oxygen). Again, there may have been a time when my daughters knew that water was a liquid at 50° centigrade, but knew nothing at all about hydrogen and oxygen, and hence had never even entertained the thought that H_2O is a liquid at that temperature.

Of course, if someone believes that H_2O is water, it is a pretty safe (though not infallible) bet that if she believes H_2O has a certain property, then she also believes that water has that property. So does our hypothetical chemist believe that H_2O is water? It is hard to see on what basis we would attribute that belief to her.

Imagine an amateur chemist who knows that water is a liquid that comes out of the taps, falls out of the sky, and so on, but does not know that water is made of hydrogen and oxygen. Like our hypothetical chemist in the world without water, our amateur chemist knows about hydrogen and oxygen, and figures out that if they combine in the right way, the result will be a substance – H_2O – with a variety of interesting properties. At some point the amateur chemist makes a truly exciting discovery – that H_2O is water. This discovery is one that the hypothetical chemist in the world without water is not going to make: she does not start out with two different concepts which she initially fails to recognize are concepts of the same substance. Either she has always

known that H_2O is water, or she will never know it. But there is something very strange about the supposition that she has always known that H_2O is water. For it seems that she doesn't know anything about H_2O that the amateur chemist couldn't have known *before* discovering that H_2O was water. So how could she know what he didn't know then?

Essentially the same considerations cast doubt on the claim that the hypothetical biologist believes that Anselm is a human being, or the claim that the alien astronomers believe that Neptune is a planet. (I leave the details to the reader.)

Nothing said so far rules out the idea that – in some sense of 'about' – the hypothetical chemist has beliefs about water, just as the hypothetical biologist has beliefs about Neptune, and the alien astronomers have beliefs about Neptune. (Suppose that before making his exciting discovery, the amateur chemist had told me about this neat substance he had thought up, made of hydrogen and oxygen … I might say to him: 'What you are talking about is water!'.) So the arguments set out earlier, to the effect that a belief's being about an individual requires neither a historical connection with that individual, nor the existence of that individual, have not been discredited. But the considerations just adduced suggest that there is no quick and easy way to get from statements like

(i) The alien astronomers' belief that Zblot is a planet is a belief about Neptune.

to statements like

(ii) The alien astronomers believe that Neptune is a planet.

It now looks as though the examples involving alien astronomers, hypothetical chemists, and the like give the defender of the doctrine of God's essential omniscience something less than she might have hoped for. The argument against God's essential omniscience we started with in §II had this form:

(1) A belief could not be about a particular individual in the absence of the right sort of connection between that belief and that individual.
(2) So if Anselm had never existed, not even God could have had any beliefs about him.
(3) In particular, if Anselm had never existed, not even God could have believed that Anselm didn't exist.
(4) So it might have been that: God existed, and Anselm didn't exist, but God didn't know that (didn't believe that, had never entertained the thought that) Anselm didn't exist.
(5) So God is not essentially omniscient.

Examples like the ones involving the alien astronomers and the hypotheti-

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cal chemist call into question (1) and thus (2), but they look perfectly compatible with (3). As we have seen, one way to describe the hypothetical chemist's doxastic situation is as follows: unlike the amateur chemist, she doesn't have two concepts (a water-concept and an H_2O-concept) which she at some point discovers are concepts of the same substance. Her only concept of water is the H_2O-concept she shares with the amateur chemist. But to believe that water is a certain way, it is not enough to have a certain belief about water (a certain belief involving a concept *of* water); you must also have a certain belief about water via a water-concept. So the hypothetical chemist doesn't know or believe, and cannot even entertain the thought that water is made of hydrogen and oxygen, or is a liquid at 50° centigrade, or does or does not exist – even though, for each of those thoughts, there is another thought (one involving her H_2O concept) that she can entertain, and that has exactly the same truth-conditions as the thought she cannot entertain.

Mutatis mutandis all the same things could be said about the hypothetical biologist. A mediaeval biologist might have had two different concepts of the individual, Anselm: an Anselm-concept, and a G_1+G_2-concept (where G_1 and G_2 are the gametes that Anselm actually came from). The hypothetical biologist in the Anselmless world only has the latter concept. Since her only access to Anselm is via her G_1+G_2-concept, she cannot even entertain the thought that Anselm comes from gametes G_1 and G_2, or is human, or does not exist, even though for each of those thoughts, there is another thought (involving her G_1+G_2-concept) that she can entertain, and that has the same truth-conditions as the thought she cannot entertain.

In order to block the argument against God's essential omniscience, someone would have to argue that the account just sketched of the doxastic situations of the hypothetical chemist and biologist is mistaken. More precisely, she would have to make the case that, in the hypothetical chemist and biologist examples, or in some modified version of those examples, the hypothetical chemist in the waterless world would believe that *water* is made of hydrogen and oxygen, or is liquid at 50° centigrade, and the hypothetical biologist in the Anselmless world would believe that *Anselm* comes from gametes G_1 and G_2, and is human.

There are philosophers who think this case can be made. Suppose a 'direct reference' theorist holds that 'water' rigidly designates H_2O, and accepts that the hypothetical chemist has various beliefs about H_2O.[11] Then he will

[11] A term *t rigidly designates* an individual *i* (or is a *rigid designator of i*) just in case, no matter how things had been, *t* would have referred to *i*, if it had referred to anything at all. Thus (Kripke has argued) 'Anselm' rigidly designates Anselm, and 'water' rigidly designates H_2O. But 'the boundlessly imaginative philosophical theologian who invented a new kind of argument for God's existence and was the first to argue explicitly that events have temporal parts, but substances do not' does not rigidly designate Anselm (or anyone else), since, if things had been different in certain ways, that description would have referred to Abelard, rather than Anselm. See S. Kripke, 'Naming and Necessity'.

insist that, since the hypothetical chemist believes that H_2O is made of hydrogen and oxygen, and since believing that H_2O is a certain way is sufficient for believing that water is that way, the hypothetical chemist believes that water is made of hydrogen and oxygen.

If this is true, it will be objected, why doesn't the amateur chemist believe that water is made of hydrogen and oxygen, as soon as he believes that H_2O is made of hydrogen and oxygen? The direct reference theorist will reply that he does: even before the amateur chemist made his discovery, it would have been true – though infelicitous and misleading – to say that he believes that water is made of hydrogen and oxygen. So-called 'direct reference' theories of belief are characterised precisely by the insistence that – in cases where *t* and *t'* are co-referential rigid designators – substitution in belief-contexts is always truth-preserving, so that if someone believes that Hesperus, or Cicero, or H_2O is a certain way, it follows logically that she believes Phosphorus, or Tully, or water, is that same way.[12]

I do not find 'direct reference' accounts of belief attractive: they seem to me to involve too much explaining away of robust intuitions about the truth-values of certain belief-ascribing statements. Nor do I know of any other way to show that our hypothetical chemist believes that *water* is a liquid, and our hypothetical biologist believes that *Anselm* is human. Let us suppose, though, there is a way to do that. As I shall try to show, the defender of God's essential omniscience is not yet out of the woods.

VI

In the last two sections we have considered examples in which someone in a non-actual possible world at least arguably has beliefs about an actual individual that does not exist in that non-actual world. In each of these examples, the thinker's ability to think about the actual individual is parasitic upon her ability to think of certain other things that exist in the non-actual as well as in the actual world, and that the actual individual is actually made of or made from. The hypothetical chemist in the waterless possible world can think about water, because she can think about hydrogen and oxygen, which exist in the waterless world as well as in the actual world, and actually constitute water. The hypothetical biologist in the Anselmless possible world can think about Anselm, because she can think about the gametes G_1 and G_2, which exist in the Anselmless world as well as in the actual world, and are the gametes Anselm was actually made from.

If this is an essential feature of the examples – if no one could have thought about an actual individual, in the absence of that individual, and all the

[12] For an exposition and defence of a 'direct reference' account of belief, see N. Salmon, *Frege's Puzzle* (Cambridge: MIT Press, 1983). See also J. Barwise and J. Perry, *Situations and Attitudes* (Cambridge: MIT Press, 1983), especially ch. 10.

things it is made of or from – then the response to the argument against God's essential omniscience sketched in the last two sections does not really lay that argument to rest. For the argument could be reformulated as follows:

(1) It could not happen that: a belief was about a particular individual, even though neither that individual nor anything that individual was made of or from existed.
(2) So if neither Anselm, nor any of the things he was made of or from had ever existed, not even God could have had any beliefs about Anselm.
(3) So (by the reasoning of the original form of the argument) God is not essentially omniscient.

Is (1) true? Well, why did we bring the gametes into the story of the hypothetical biologist in the first place? The gametes are important in motivating the claim that the hypothetical biologist has some thoughts that are about *Anselm*. Why on a particular occasion is the biologist thinking about (talking about) Anselm, rather than somebody else? Because she has in mind (is intending to refer to) the man coming from gametes G_1 and G_2 – and that man is Anselm, and not somebody else.

In order for this to be a good answer, it is not sufficient that Anselm actually come from gametes G_1 and G_2. It must also be true that nobody else could have come from those gametes. Suppose that *sensu stricto* only Anselm's body came from his gametes, and Anselm consisted essentially of a particular body and a particular soul that God created and 'hooked up to' Anselm's body at the time of his conception. Suppose further that different souls could be hooked up to the same body. In that case, the hypothetical biologist would not be in a position to have thoughts about Anselm, since there would be no good answer to the question, 'what makes her thoughts about Anselm, rather than some other man with a different soul hooked up to the body that came from gametes G_1 and G_2?'

Let us call a property that some individual could have, and that no other individual could have, an *individuative property*. (If the property is a property of individual *i*, we may say that it *individuates i*.) In order for someone in a non-actual world to think about an actual individual that does not exist in that non-actual world, it seems, she must able to mentally 'get hold of' an individuative property of that actual individual; that will in turn enable her to mentally get hold of the actual individual. It should be emphasized that this will work only if the individuative property really is accessible to the thinker in the non-actual world. It is no good, for example, saying that someone in an Anselmless world could have thoughts about Anselm by thinking about Anselmhood, and using that property to mentally get hold of the only individual who could have it.

The existence of Anselm's gametes in the hypothetical biologist's world is

important in the story, because it is their presence in that world – and their historical connections with the biologist in that world – that afford the biologist access to an individuative property of Anselm. If those gametes had never existed, or had been causally insulated from her, the biologist would not have had access to the particular individuative property of Anselm she in fact had access to; nor presumably would she have had access to any other individuative property of Anselm.

If this is right, question (1) could be rephrased in these terms: could anyone in a possible world without, say, Anselm, or anything he was made of or from, have access to an individuative property of Anselm? Leibniz certainly would have thought so. To see why, it will be useful to introduce a bit of terminology.

VII

Some properties are relations to particular individuals – for example, *being identical to Laura*, or *being Marta's spouse*. Call two properties *co-intensive* if and only if necessarily, whatever has either property has the other. Then we may say a property is *non-general* (or *individual-involving*) if (1) it is a relation to one or more particular individuals; or (2) it is a relation to one or more sets of particular individuals, or sets of sets of particular individuals, or …; or (3) it is co-intensive with some property satisfying conditions (1) and (2). And we may say that a property is *general* otherwise.[13]

Note that 'general' does not mean 'shared'. *Having such-and-such a shape* is a general property, even if only one thing in the world has that shape. Conversely, *being Elizabeth's child* is a non-general property (because it is a relation to a particular individual), even if more than one individual has that property.

Call a property *irreducibly non-general* if, starting from only general properties, there is no way to 'construct' a property co-intensive with that property. (The operations available for use in property construction would include the Boolean operations of negation, conjunction, disjunction, and so on.) It is initially plausible that all non-general properties are irreducibly non-general. Plausible but not incontestable: perhaps Boolean operations could take us from general to non-general properties, just as they can take us from shared to unshared properties. Suppose that – just as the mediaevals thought – God is essentially omniscient, and there could not have been anyone who was distinct from God, and omniscient. (In other words, suppose that omniscience is both essential to and individuative of God.) Then omniscience will by our definition be a non-general property, since it will be co-intensive with *being identical to God*. But it will be a reducibly non-general property, since it

[13] General properties more or less correspond to the properties Robert Adams calls 'basic suchnesses'. See his 'Primitive Thisness and Primitive Identity', *Journal of Philosophy*, **76** (1979), pp. 5–26, and especially pp. 7–8.

is co-intensive with *knowing something and not being ignorant of anything*, and this last property may be constructed, via the Boolean operations of negation and conjunction, from the general properties, *knowing something* and *being ignorant of something*.[14]

Suppose we make the following Leibnizian assumptions:

(A) Each actual individual has some property which is both reducibly non-general and individuative.

(B) In every possible world in which God exists, He has access to every general property any actual individual actually has, and to all the properties 'constructible' therefrom.

Then we may conclude that God could have had thoughts about Anselm, even if neither Anselm, nor anything he was made of or from, had ever existed. By (B) God would still have had access to all of Anselm's general properties, and to all the properties constructible from those properties. He would accordingly (by (A)) have had access to an Anselm-individuating property that enabled Him to think about Anselm.

For reasons already touched upon, though, (A) appears to be false. As we saw in §I, it seems that Anselm could have existed in a symmetrical world. In such a world, he and his 'twin' on the other side of the axis of symmetry would have had all the same general properties, and consequently all the same reducibly non-general properties (viz., none at all). It follows that, contrary to (A), no reducibly non-general property of Anselm individuates him.[15]

If no reducibly non-general property affords God access to Anselm in an Anselm-and-all-his-parts-less world, what other property might do the job? After reflecting on symmetrical worlds, it is natural to suppose the property would involve (irreducibly) non-general properties such as *having this spatio-temporal location*. There is no obvious reason to think God would lack access to such properties, if neither Anselm, nor anything he was made of or from, had ever existed. So perhaps God could mentally get hold of Anselm (in an Anselm-and-all-his-parts-less world) by getting hold of a complex property of the kind, *having these general properties and this spatio-temporal location*. The

[14] Why doesn't this example show that a non-general property may be constructed from general properties via Boolean operations? Because, in order to make the example work, we had to suppose that omniscience was non-general, and a defender of the thesis that you cannot get non-general properties from general ones may insist that omniscience is, *pace* the mediaevals, a general property.

[15] This is a *coloratio* (variant) of an argument for a very similar conclusion by Alan McMichael in 'A Problem for Actualism about Possible Worlds', *Philosophical Review*, **92** (1983), p. 57. The argument presupposes that in a symmetrical world there are two different individuals (Anselm and his 'twin') in two different places, rather than one individual (Anselm) wholly present in each of two places at the same time. As John O'Leary-Hawthorne and Dean Zimmerman have noted, someone might deny this (see John O'Leary-Hawthorne, 'The Bundle Theory of Substance and the Identity of Indiscernibles', *Analysis*, **55** (1995), pp. 191–6, and Dean Zimmerman, 'Distinct Indiscernibles and the Bundle Theory', *Mind*, **106** (1997), pp. 304–9. For some arguments against bi-location, see my 'Bundle Theory from *A* to *B*', *Mind* (forthcoming).

existence of Anselm in symmetrical possible worlds does not raise the same problem for this suggestion as it does for the suggestion that God could get hold of Anselm (in an Anselm-and-all-his-parts-less world) via a reducibly non-general property. For although Anselm and his twin would be indiscernible with respect to the general property component of *having these general properties and this spatio-temporal location*, they would not be indiscernible with respect to the property itself.

Of course, it is no good explaining God's ability to think about Anselm (in certain possible) worlds in the way just envisaged, unless Anselm is individuated by the sum of all his general properties together with his spatio-temporal location, and, more generally, all *actualia* are individuated by their general properties together with their spatio-temporal location. Are they? I am inclined to think not. My basic intuition is that *having such-and-such general properties* and *having this spatio-temporal location* do not 'add up to' *being this particular individual* (unless the individual is of a special kind – e.g., a space-time point). Perhaps I can elicit this intuition in the reader by appeal to some artificially simplified examples.

Consider a possible world w in which the only things that exist are one star and two planets – call them planet A and planet B. The two planets have all the same general properties. They move around the star forever at the same (constant) speed, in the same circular orbit, 180 degrees away from each other. Suppose that at a particular time t planet A is in a certain place (say, the 12:00 position). A's actual location at that time is not essential to it: A might have been, say, at the 3:00 position at that time. This could have happened if at some before t, A had speeded up or slowed down. But it seems, it also could have happened, if planet A had always had the same orbital speed – the orbital speed it actually had in w. In the latter case, A would have occupied a different place from its actual place (at w), not just at time t, but at all earlier (and later) times. (A would have always been a quarter-circle away from where it actually was.)

If this is so, then A and B might have each been a half-circle away at t from where they actually were at t, even though they had always had the same orbital speed they actually had (in w). Had that been the case, then A would have had all the general properties that B has in w, and the spatio-temporal location that B has in w. And B would have had all the same general properties that A has in w, and the spatio-temporal location that B has in w. If this is a possibility, then neither A nor B is individuated by its general properties together with its location.

Or consider a simpler example, involving a world w in which there is just one immobile and eternal sphere – call it S – made entirely of some one kind of stuff. On the face of it, it is true at world w that there could have been a sphere S' that was exactly like S, and had the same spatio-temporal location as S, but was made of completely different stuff from S – not of a (quali-

tatively) different kind of stuff, but of (numerically) different stuff.[16] S' is a different sphere from S, because spheres made of completely different stuff are different spheres. But for some possible world w', S' has the same general properties and spatio-temporal location in w' that S has in w. It follows that S is not individuated by its general properties together with its location.

Because I don't think that general properties together with location individuate, I do not think that if none of the things in the universe had existed, God would have been able to have thoughts about each of them via some individuative property constructed from general properties and locations. A defender of God's essential omniscience might not share the intuitions on which this judgement rests. But, as I shall try to show, there are still worries about the doctrine of God's essential omniscience, even if we grant that everything in the universe is individuated by some property involving general properties together with location.

VIII

Anselm's general properties are insufficient to individuate him, inasmuch as Anselm and his 'twin' in a symmetrical universe could be indiscernible with respect to general properties, and all properties constructed therefrom. For the same reason, Anselm's general properties together with his temporal location are insufficient to individuate him.

Similarly, if there are spiritual substances – angels, say – neither general properties, nor general properties together with temporal location seem sufficient to individuate them. Just as Anselm might have shared all his general properties with a (contemporaneous) twin, so too might Gabriel.

Here someone might object that while two men could have all the same general properties, two angels could not. After all, she might say, Anselm and his 'twin' would be discernible with respect to their spatial locations, and would accordingly be distinct; Gabriel and his alleged 'twin' would not be discernible in that – or in any other – way, and would accordingly be identical.

Surely, though, Gabriel and some other angel could have had some of the same general properties (e.g. they could both be thinking, willing, loving creatures). And there seems no principled reason to admit that Gabriel and some other angel could be partially indiscernible with respect to general properties, and deny that Gabriel and some other angel could be totally indiscernible with respect to general properties. If Gabriel could be indiscernible from another angel with respect to some general properties, it seems he could be indiscernible from another angel with respect to enough general properties that that angel would be Gabriel's 'quasi-twin'. And if Gabriel

[16] Two pennies can be made of completely different stuff, even though they are made of exactly the same *kind* of stuff.

could have a 'quasi-twin', it seems that the general properties with respect to which Gabriel and his 'quasi-twin' were discernible could be accidental to both of them. So if there are possible worlds in which Gabriel and another angel are quasi-indiscernible with respect to general properties, then there are possible worlds in which Gabriel and that angel are completely indiscernible with respect to general properties. Given the necessity of identity, it follows that there are possible worlds in which distinct angels have all the same general properties.[17]

Now if Gabriel is not individuated by his general properties, or his general properties together with his temporal location, neither is he individuated by his general properties together with his spatio-temporal location. If spiritual substances are located in space, they do not occupy space in such a way as to prevent other substances from being in the same region of space at the same time. (If God is literally (and not just 'virtually') everywhere, His being in a particular place now does not prevent me or Gabriel from being there now as well.) So if – as I have argued – two angels could have all the same general properties, and exist at all the same times, then two angels could have all the same general properties, and exist at all the same places and times. If on the other hand spiritual substances have no spatial location, then any two angels that exist at all the same times (vacuously) exist at all the same places (none at all) at all the same times. So once again, if two angels could have all the same general properties, and exist at all the same times, then two angels could have all the same general properties, and exist at all the same places and times.

The moral is that even if Anselm is individuated by his general properties plus his spatio-temporal location, Gabriel is not. So God could not mentally get hold of Gabriel in a Gabriel-and-all-his-parts-less world via a property constructed from Gabriel's general properties and his location.

We have considered a variety of accounts of how God could have had thoughts about Anselm (or Gabriel), if Anselm had never existed. All those accounts appealed to the existence of a property that was accessible to God (in the relevant counterfactual situations) and offered God access to the individual thought about, in virtue of individuating him. The reason all the accounts took that form is that it does not seem intrinsically intelligible (without further explanation) that anyone – even God – could have thoughts about a particular individual, in a possible world in which that individual does not exist.

Now let us return to Gabriel. As we have seen, neither (the sum of) his general properties, nor his location, nor any property constructed from his general properties and location, suffice to individuate him. This makes it very doubtful that there is any property about which we could say both that

[17] For a similar argument, see 'Primitive Thisness and Primitive Identity', pp. 17–18.

it individuates Gabriel, and that God's having access to it (in a world without Gabriel or his parts) is any more intrinsically intelligible than God's having access to Gabriel himself (in such a world).[18] In that case it is doubtful that God would have known that Gabriel didn't exist, if he (and his parts) had never existed.

It might be thought that this is a problem for someone who believes in God's essential omniscience and in (contingent) spiritual substances, but not (necessarily) for someone who believes in God's essential omniscience. Not so. If, as the believer in God's essential omniscience supposes, an infinite (and arguably necessary) infinite spiritual substance is possible, then surely finite and contingent spiritual substances are possible. Consider a possible world in which God creates a (contingent) spiritual substance. By the considerations adduced above, there is reason to suspect it is true at that world that there is at least one individual (the contingent spiritual substance) about whom God wouldn't have had any beliefs at all, if it had never existed. If there is such a world, it is not true at that world that God is essentially omniscient. So if the world had been a certain way – if God had created a certain sort of individual – He would not have been essentially omniscient. This seems incompatible with the doctrine of God's essential omniscience, as usually understood. Proponents of that doctrine hold that God has to be omniscient, simply in virtue of being the kind of Being He is; they would not accept that God is essentially omniscient, in virtue of being the sort of Being He is, and having made one set of creative choices, rather than another.

So the defender of God's essential omniscience faces a dilemma. If she denies that spiritual substances are possible, she makes God an impossible object. If she accepts that spiritual substances are possible, she countenances possibilities that call into question the doctrine of God's essential omniscience, as it is usually understood. The only obvious way out – accepting the possibility of a necessary and uncreated substance, and denying the possibility of created and contingent ones – seems a desperate measure.

Someone might wonder at this point whether these considerations do not also cast doubt on the claim that God is *actually* omniscient. Aren't there lots of possible individuals that don't actually exist? Aren't some of those individuals spiritual substances? If so, aren't there true negative existentials about those individuals that God can't so much as entertain?

The answers to these questions depend at least in part on the ontological status of *inactualia*. If – as Richard Montague and David Lewis have supposed – there are merely possible individuals (and in particular merely possible spiritual substances) they do threaten God's actual omniscience. It is not

[18] If God had access to the (individuating) property, *being identical to Gabriel*, in a certain world, He would certainly have access to Gabriel in that world. But the supposition that God has access to *being identical to Gabriel* in a Gabriel-and-all-his-parts-less world is no more intrinsically intelligible than the supposition that God has access to Gabriel in such a world.

clear, though, that we can make sense of the idea that there are individuals that do not actually exist. Of course, someone who believes that properties can exist, even though they are not exemplified, might believe in the essences of merely possible individuals (conceived as unexemplified properties), even if he didn't believe in merely possible individuals.[19] If there are essences of merely possible individuals, and if those essences cannot be individuated either by reference to general properties, or by reference to general properties and relations to *actualia*, they will threaten God's actual omniscience. Again, though, it is controversial whether there are any such essences.[20]

IX

Propositions are typically conceived of as entities that are true or false, necessary or contingent, possible or impossible, and as the objects of the 'propositional attitudes' – knowledge, belief, assertion, denial, entertainment, and so on. Why believe in entities with all these features? Because their existence is apparently entailed by truths such as *Some of the things Anselm believed are true*, and *Some things that are true are necessary*.

To say that propositions have certain semantic and modal properties, and are the objects of certain relations, is not to say much about what propositions are intrinsically – about what sort of structure (if any) they have. The bearers of truth and falsity and the objects of the attitudes might turn out to be sentences in some natural or artificial language, sentence-like entities in a language of thought, sets of possible worlds, or something else again. For various reasons, a number of philosophers have thought that singular propositions are complex entities built up from or constituted by individuals and properties. On this view, the singular proposition, *Anselm was a monk*, is constituted by Anselm and the property of being a monk; and the singular proposition, *Anselm exists*, is constituted by Anselm and the property of existence.[21]

Some of the philosophers who have thought of singular propositions in this way have accepted two further theses: that a singular proposition is essentially constituted by the individual it is about, and that one thing cannot be constituted by another thing, unless that other thing exists. They have concluded that the singular proposition, *Anselm exists*, would not have existed if Anselm hadn't.[22]

[19] Here Alvin Plantinga comes to mind. See his *The Nature of Necessity* (Oxford: Clarendon Press, 1974).

[20] For arguments to the contrary, see Alan McMichael, 'A Problem for Actualism about Possible Worlds', *Philosophical Review*, **92** (1979), Section IV, and Robert Adams, 'Actualism and Thisness', *Synthese*, **49** (1981), pp. 3–41.

[21] Here again, the proposition should be understood not as present-tensed, but as equivalent to the proposition that Anselm has existed or exists or will exist.

[22] See K. Fine, 'Prior on the Construction of Possible Worlds and Instants', pp. 127–30, and R. Adams, 'Actualism and Thisness', pp. 6–7 and 18–20.

If *Anselm exists* would not have existed if Anselm never had, can the same be said for *Anselm does not exist*? It is natural to suppose so, on the grounds that the negation of a proposition cannot exist, unless the proposition of which it is the negation does.[23]

At this point, someone might wonder whether the attempts we have considered to defend God's essential omniscience against the argument of §II are on the wrong track. The gist of that argument was that since (A) aboutness requires existence (either of the individual thought about, or of something it is made of or from), (B) God wouldn't have known that Anselm (or Gabriel) didn't exist, if neither he nor anything he was made of or from had ever existed, so that (C) God is not essentially omniscient. The attempts to block this argument considered so far challenge (A) and (B). But a defender of God's essential omniscience who accepts the account of singular propositions just sketched does not seem in a very good position to deny (B). By her lights, if Anselm had never existed, neither would the proposition, *Anselm does not exist*. It is doubtful, though, that God could have stood in the knowing relation to the proposition, *Anselm does not exist*, if that proposition hadn't been there to be related to.

On the other hand, someone who thinks that singular negative existential propositions are ontologically dependent upon what they are about might challenge the inference from (B) to (C) in the following way:

> God is omniscient just in case for all true propositions P, God knows that P. God is essentially omniscient just in case necessarily, God is omniscient, if He exists. That is, God is essentially omniscient just in case in every possible world in which God exists it is true that: for all true propositions P, God knows that P. In spite of the truth of (B), this condition is met; even in a possible world without Anselm, it is true that: for all true propositions P, God knows that P. We cannot say that an Anselmless world, there is at least one true proposition God doesn't know – viz., *Anselm does not exist*. For it is not true in any Anselmless world that there is such a proposition.

There are at least two sorts of worry one might have about this defence of God's essential omniscience. One might have doubts about the adequacy of the account of singular propositions it presupposes. In fact I have such doubts, but for reasons of space I shall not discuss them here.[24] One might also suspect that, while the condition alleged to be sufficient for essential omniscience at first sight appears sufficient, it will turn out not to be sufficient, if the account of singular propositions presupposed is true. This suspicion seems well-founded to me.

[23] Adams does in fact hold that the proposition *Robert Adams does not exist* does not exist in Adamsless possible worlds: see 'Actualism and Thisness', p. 27.

[24] George Bealer argues against the view that singular propositions about contingent entities are themselves contingent entities in 'Propositions', *Mind* (forthcoming).

It is a necessary and sufficient condition of God's being actually omniscient that

(i) However the world is, God knows it is that way.

(i) is obviously insufficient for God's being essentially omniscient. Nor would we get much closer to sufficiency with

(ii) However the world is or might have been, God knows it is or might have been that way.

– since (ii) ascribes to God actual knowledge of counterfactual possibilities, rather than counterfactual knowledge of counterfactual possibilities. It seems that what is needed is something like

(iii) However the world might have been, if it had been that way, God would have known that it was that way (assuming that He existed).

If however (B) is true, then there is some way the world might have been (Anselm-and-all-his-parts-less, or Gabriel-and-all-his-parts-less) such that, if it had been that way, God would not have known that it was that way (even assuming that He existed). So if (B) is true, God is not essentially omniscient, even if

(iv) No matter how the world had been, God would have known all true propositions (that is, would have known all the propositions that would have existed and would have been true if the world had been that way).

Here someone might object:

> If Anselm had never existed, neither would any singular propositions about Anselm; so it would not have been true that Anselm didn't exist (although it would not have been false either). Surely, though, the fact that God wouldn't know something in certain circumstances cannot be prejudicial to God's essential omniscience, if what God wouldn't know in those circumstances would not be true in those circumstances.

This does not seem right. Suppose you say to me, 'Anselm never existed'. I might reply:

(α) As a matter of fact, he did. But if his parents had never existed, he wouldn't have.

I might equally well respond:

(β) That is not true. But if his parents had never existed, it would be true.

– or, more laboriously:

(γ) It is not true that Anselm never had existed. But if his parents had ever existed, it would be true that Anselm never existed.

The truth of (γ) shows that if neither Anselm nor his parents had ever existed, it would be true that Anselm does not exist.

A referee of an earlier version of this paper and Martin Stone have (independently) suggested to me that someone might defend God's essential omniscience against the arguments under consideration in this way:

> If your arguments work, they show that if Anselm or Gabriel did not exist, not even God could know that he did not. But why should this be thought inconsistent with His essential omniscience? Just as omnipotence does not entail being able to do what cannot be done, omniscience does not entail being able to know what cannot be known. So even if it is true at an Anselmless world that Anselm does not exist, but God does not know that, He is still omniscient at that world.

The analogy suggested here is an interesting one, and there certainly is a construal – or perhaps a reconstrual – of omniscience according to which being omniscient at a world requires, not knowing whatever is true at that world, but only knowing whatever is knowable at that world.[25] Whether the envisaged (re?)-construal of omniscience is strong enough to capture the intuitive notion of omniscience is doubtful. Suppose that a radical sceptic held that God actually knew everything knowable, although He did not know anything except truths concerning the intrinsic features of His immediate experiences, and certain truths of logic. Could she really (properly) claim to accept God's omniscience, given how much she thought God was ignorant of?

Whether or not omniscience can be construed as requiring only knowledge of the knowable, it has not usually been construed that way. Whereas hardly anyone (in either mediaeval or contemporary discussions) has held that omnipotence entails being able to make true every proposition, philosophical theologians have for the most part supposed that omniscience entails knowing every true proposition. Thus most philosophical theologians have thought it obvious that if bivalence applies to future contingent propositions, then God is omniscient only if He has knowledge of future contingent propositions. And Richard Swinburne, who offers an account of omniscience on which it does not entail knowledge of every truth, calls the account on which it does entail knowledge of every truth 'the obvious account'.[26] So the arguments set out so far do seem at least to raise worries about the doctrine of God's essential omniscience, on a quite standard construal of omniscience.

[25] For reasons different from the ones discussed in this paper, Richard Swinburne defends an account of omniscience which requires God to know whatever is knowable (by Him), but not whatever is true. See his *The Coherence of Theism* (Oxford: Clarendon Press, 1993), chapter 10. [26] *Ibid.*, p. 167

X

Suppose that (a suitably modified) version of the argument set out in §II is sound, and God is not after all essentially omniscient. As I shall try to show, this has some interesting implications concerning what sort of choices God could make when He creates, and the extent to which the existence of particular contingent individuals could be explained by what creative choices God made.

How does God decide what kinds of things will exist? We might say: God starts out entertaining a range of options about what kinds of things to create. He could create pigs, or horses, or unicorns, or centaurs, or…. At a later time – or at a later Scotistic instant of nature – He decides to create some kinds of things, and not others – horses and pigs, but not unicorns or centaurs. Equivalently: God starts out entertaining a very large set of general existential propositions – {*there are pigs*, *there are horses*, *there are unicorns*, *there are centaurs* …}. At a later instant or instant of nature, He decides to make-true some members of that set, and not others.

So how does God decide which particular individuals of a given kind will exist? How does He decide on Gabriel, rather than on some other (non-actual) angel He might have created, with all the same essential general and (spatio?)-temporal properties?[27] If we tell the same sort of story about individuals as we did about kinds, we will say: God starts out entertaining a very large set of singular existential propositions, {*Gabriel exists*, *Michael exists*, *Gabriel* exists*, *Michael* exists*, …}. (Gabriel* is a (non-actual) angel distinct from Gabriel, with all the same essential general and (spatio?)-

[27] This presupposes that where *s* is Gabriel's kind – that is, his *infima species* – some individual other than Gabriel could have belonged to *s*. A referee for this paper has pointed out that some mediaevals would have denied this claim, on the grounds that for every angelic *infima species* there is exactly one possible individual belonging to it. For such a mediaeval – say, Aquinas – the question, how does God decide which particular angel of a given *infima species* to create, has a false presupposition.

I have argued that some individual other than Gabriel might have had all the same general and locational properties as Gabriel, and I have assumed that if two angels have all the same general properties, and all the same locational properties, then they belong to the same *infima species*. If this last assumption is denied, and Gabriel's *infima species* is seen as something like {Gabriel}, it will no longer be possible to raise the question, how does God decide which member of Gabriel's *infima species* to create? But esentially the same question can be reformulated as follows: how does God decide to create Gabriel, rather than some angel of a different *infima species* indiscernible from Gabriel with respect to general and locational properties?

What would Aquinas say about all this? I take it that he would agree with the assumption (that if two angels have all the same general and locational properties, then they belong to the same *infima species*), but reject the argument. That is, I take it that although Aquinas would accept that distinct angels could be indiscernible with respect to some general properties (knowing, willing, loving …), he would deny that they could be indiscernible with respect to all. But the issue is complicated, for a number of reasons. First, the question Aquinas addresses is not whether two angels could have all the same general and locational properties, but the question of whether two angels could have the same (kind of) substantial form. Second, although Aquinas says some things that appear to imply that two angels could not have all the same general properties, he says other things that appear to imply that they could. See my 'Matter and Individuation in Aquinas', *History of Philosophy Quarterly*, **13** (1996), pp. 1–17, and (especially) 'Aquinas on Continuity and Identity', *Mediaeval Philosophy and Theology*, **6** (1997), pp. 93–108.

temporal properties as Gabriel). At a later instant or instant of nature, He decided to make-true some members of that set and not others.

If the argument of §II is sound, this picture of how God decides to create Gabriel must be mistaken. Even if there is such a thing as the *inactuale* Gabriel*, or an uninstantiated Gabriel*-essence, if God does not actually choose to create Gabriel* (or any of his parts), God won't be able so much as to entertain the proposition, *Gabriel* exists*. (To do so He would have to have access to Gabriel* via one of his individuative properties, and He would have no such access.) So He won't be able to entertain but spurn the option of creating Gabriel*, or Michael*, or any of the other non-actual angels that have the same essential general and (spatio?)-temporal properties as some actual angel.

If God does not choose between the option of creating Gabriel, and the option of creating Gabriel*, He might still choose between the option of creating Gabriel, and the option of creating some angel or other different from Gabriel who has all the same essential general and (spatio?)-temporal relational properties as Gabriel. And He might still choose between the option of creating some angel with the essential general and (spatio?)-temporal relational properties that Gabriel as a matter of fact has, and the option of creating no angel with those properties. On the first suggestion, in deciding whom to create, God starts with some options involving particular individuals, but all those options involve *actualia* like Gabriel and Michael, rather than *inactualia* like Gabriel* and Michael*. On the second suggestion, in deciding whom to create, God starts out with options none of which involve any particular individuals.[28]

Either way, it will turn out that there is an element of brute contingency in Gabriel's existence – an element of contingency that cannot be grounded in God's (contingent) will. Suppose we say that Gabriel exists, because God chose the option of creating him, rather than, say, the option of creating some angel or other different from Gabriel who had all the same essential general and (spatio?)-temporal relational properties as Gabriel. God chose that option, only because it was available for Him to choose. But it is a contingent matter that that option was available for Him to choose. If, as perfectly well might have happened, God had chosen to create some other angel instead of Gabriel, God would not have been able to entertain the proposition, *Gabriel exists*, or the option of creating Gabriel. So why was the particular individual-involving option, *creating Gabriel*, available to God, when it might perfectly well not have been? There cannot be an explanation in terms of God's creative choices (which are not explanatorily prior to His options). Nor does it look as though there could be any other explanation. So Gabriel exists because God made a certain choice given His options, but it is a brute contingent fact that the option He chose was there for the

[28] This is a view suggested by Adams's remarks in 'Actualism and Thisness', pp. 9–10.

choosing. In that case, there is an element of brute contingency about Gabriel's existence, over and above whatever contingency is involved in God's exercise of will in choosing between His options.

Suppose on the other hand – as seems more plausible – that in choosing whom to create, God does not start with any individual-involving options. Then there is obviously a gap between the creative choices God makes, and the results of those choices. *Proprie loquendo*, God does not choose to create Gabriel; He chooses to create an angel with such-and-such essential general and (spatio?)-temporal relational properties, and, as a matter of contingent fact, the choice results in Gabriel's existence (though it might just as well have resulted in the existence of a different angel with those same general and (spatio?)-temporal properties). Once again, there is an element of brute contingency about Gabriel's existence, over and above whatever contingency is involved in God's exercise of will in choosing between His options. Once again, Gabriel owes his existence to God, but not just to God; he also owes his existence to what we might call cosmic luck.[29]

[29] Many thanks to Marcia Mayeda, Martin Stone, and an anonymous referee.