From Necessary Truth to Necessary Existence

Abstract

I introduce new details in an argument for necessarily existing propositions. The crux of the argument marks out a pathway to the conclusion that necessary truths cannot themselves be necessarily *true* unless they necessarily *exist*. I motivate the steps in the argument and then address several standard objections, including one that makes use of the distinction between 'truth in' and 'truth at'. The purpose of the argument is to generate deeper insights into the nature of propositions and the logic of necessity. The argument also gives us a new reason to believe a traditional answer to the question of why there is anything: there is something because the alternative is impossible.

From Necessary Truth to Necessary Existence

Is there anything that *must* exist? In this paper, I will argue that there is by giving a new argument for thinking that at least some *propositions*—understood as things that can have a truth-value—are necessarily existent.

1. The Argument

Certain propositions seem to be, in some significant sense, *necessarily true*. Take, for example, this proposition: if there are philosophers, then there are philosophers. It seems to be necessarily true. I will offer new moves in an argument for the thesis that whatever is necessarily true is necessarily existent.[1]

To begin, let 'P' abbreviate any sentence that expresses a necessary truth. For example, we may let 'P' abbreviate 'if there are philosophers, then there are philosophers'. Let '<…>' abbreviate 'the proposition that …'. I will not assume that propositions (primary truth-value bearers) are the objects of propositional representations, that-clauses or mental states.[2] Rather, out of sympathy for a contingentist view, I will leave it open at the outset whether propositions are sentence tokens, brain states or other (allegedly) contingently existing representational items.

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[1] The argument to come bears some similarities to arguments by Plantinga (2013) and Carmichael (2010), but I make use of different premises and deal with different objections.

[2] Thus, I do not rule out Balaguer's proposal (1998, 2010) that truth-value bearers are not the referents of that clauses.

Consider the following argument schema for the conclusion that <P> necessarily exists:

1. □P.

2. □P → □□P.

3. Therefore: □□P.

4. □ (□P → it is true that P).

5. □ (it is true that P → <P> is true).

6. □ (<P> is true → <P> exists).

7. Therefore: □ <P> exists. [By the Distribution Axiom: □(A→B) → (□A→□B)]

I shall review each premise and then consider some standard objections to arguments of this sort.

Premise (1) says that necessarily, *if* there are philosophers, then there are philosophers. That surely seems reasonable. So, let us continue.

Premise (2) is an instance of **S4**, which entails that if it is necessary that P, then it is necessary that it is necessary that P.[3] In other words, the necessity of <P> is itself necessary.[4] Premise (3) follows.

Turn next to (4): □(□P → it is true that P), where '→' expresses material implication. This premise says that as a matter of necessity, if it is *necessary* that P, then it is *true* that P.[5] In other words, necessity entails truth. There is something intuitive about that. Suppose it is *necessary* that material objects are made of atoms. Would it not thereby be *true* that material

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[3] I am assuming that 'it is necessary that P' is semantically equivalent to 'necessarily, P'. If you have doubts about that, then replace occurrences of 'it is necessary that P' with 'necessarily, P'.

[4] We can make do with an even weaker premise by letting <P> be a theorem in **K**, where **K** is propositional logic conjoined with both (i) the Necessitarian Rule (that if *A* is a theorem of **K**, then so is □*A*) and (ii) the Distribution Axiom. For then (2) is an instance of the Necessitarian Rule.

[5] Here is (4) in terms of possible worlds: for every possible world, *w*, if <necessarily, P> is true at *w*, then <it is true that P> is true at *w*.

objects are made of atoms? It seems so. In general, it seems that if it is *necessary* that such and such, then it is *true* that such and such.

Yet someone may question the inference from $\langle\Box P\rangle$ to $\langle$it is true that P$\rangle$ for the following reason. Let *w* be any possible world. And suppose $\langle\Box P\rangle$ is true at *w*. It seems clear enough that $\langle P\rangle$ would therefore be true at *w*. But is it also clear that $\langle$*it is true* that P$\rangle$ is true at *w*? There is a logical gap between $\langle P\rangle$ and $\langle$it is true that P$\rangle$, and one might hesitate to step over it.[6]

To proceed more confidently, I will give an independent reason to think that the inference from $\langle\Box P\rangle$ to $\langle$it is true that P$\rangle$ is valid. Here is the reason in argument form:

For any possible world *w*,

4.1 Assume $\langle\Box P\rangle$ is true at *w*.

4.2. $\langle\Box P\rangle$ expands to $\langle\langle P\rangle$ is true at every possible world$\rangle$. (By definition[7])

4.3. Therefore, $\langle\langle P\rangle$ is true at every possible world$\rangle$ is true at *w*. (4.1, 4.2)

4.4. Therefore, $\langle\langle P\rangle$ is true at *w*$\rangle$ is true at *w*. (Since *w* is one of the possible worlds)

4.5. Therefore, $\langle\langle P\rangle$ is true$\rangle$ is true at *w*. (Since whatever is *phi-at-w-at-w* is *phi-at-w*)

4.6. Therefore, $\langle$it is true that P$\rangle$ is true at *w*. (Since $\langle\langle P\rangle$ is true$\rangle$ entails $\langle$it is true that P$\rangle$)

4.7. Therefore, if 4.1, then 4.6.

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[6] I am grateful to Jeff Speaks for pressing skepticism of the necessity of the inference from '$\Box P$' to 'it is true that P'.

[7] I am stipulating, for the sake of argument, that '$\Box P$' can be translated into the language of possible worlds, since the objection under consideration was expressed in the language of possible worlds. If we resist the translation, perhaps on the grounds that '$\Box P$' does not ascribe a property to $\langle P\rangle$, then we face the challenge of finding a different translation. Speaks (2012, p. 554) brings to light a way to unpack '$\Box P$' by proposing that $\langle\Box P\rangle$ is true with respect to a world *w* iff every world accessible from *w* instantiates a truth-condition of $\langle P\rangle$. It's an intriguing proposal, but it doesn't help the *contingentist* (who thinks all propositions are contingent) because at least *some* of Speaks' truth-conditions are themselves necessarily existent (such as the truth-conditions for "there are worlds"). The translation I've given is simpler and isn't by itself incompatible with contingentism about propositions.

4.8. Therefore, for any possible world *w*, if <□P> is true at *w* (4.1), then <it is true that P> is true at *w* (4.6).

The argument marks out a path from *necessity* to *truth* in the language of possible worlds. Since it applies to every possible world, it provides an independent reason for thinking that the inference from necessity to truth is necessary, just as premise (4) asserts.

Turn to (5): necessarily, if it is true that P, then the *proposition that P* is true. I expect this premise to generate the most controversy. Anyone who thinks that there are no such things as propositions will deny it. And those who think that propositions are contingent sentence tokens, say, could resist (5) on the grounds that 'it is true that *P*' isn't a predication of truth of a proposition.

For the sake of argument, I will assume there are propositions (things that have a truth-value), since I am addressing those philosophers who think that propositions are all contingent. We may argue for premise (5), then, as follows:

5.1. There are such things as *true things*.

5.2. If there are true things, then necessarily, if it is *true* that P, then <P> is true.

5.3. Therefore, necessarily, if it is true that P, then <P> is true.[8]

This argument hinges upon premise (5.2). I will return to this premise when addressing Objection 3 (on predication).

Consider next (6), which says that necessarily, if <P> is true, then <P> exists. The idea is that <P> cannot *be* anything, not even true, unless it actually exists. (We may view this premise

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[8] I am treating '<P>' as a rigid designator. Thus, I take (5) to entail that *one and the same* proposition is true at every world at which it is true that P. However, someone might consider (5) more plausible if '<P>' is non-rigid. Then, (5) entails that at every world at which it is true that P, a "counterpart" of <P> is true, where a counterpart of <P> is something that satisfies the definite description, '<P>'. For someone who finds (5) more plausible if '<P>' is non-rigid, I recommend the following alternative argument against <P> being spatial: (i) if <P> *were* spatial, then all its counterparts across possible worlds would be spatial; (ii) <P> has a counterpart at every possible world (because it is necessary that P is true); (iii) *but* there are possible barren worlds—words devoid of token sentences, brain states, and anything else that might be a spatial proposition; (iv) therefore, <P> is not spatial.

as falling out of a Quinean meta-ontology: if $\exists x$ (True(x)), then the value of the bound variable, x, actually exists.) We will explore this premise further when we get to Objection 2.

Premises (3)–(6) together with the Distribution Axiom entail (7): necessarily, <P> exists. (The Distribution Axiom states that if *A* entails *B*, then if it is necessary that *A*, then it is necessary that *B*.)

II. Objections

I will now consider what I take to be the most penetrating and informative objections that I have encountered.

Objection 1: Perhaps we can interpret '*p* is necessarily true' as '*p* is *essentially* true'. If we do, then when we say that a proposition is necessarily true, we are equivalently saying that that proposition is true if and *only if* it exists. (A contingent proposition, by contrast, would be true in some, but not all, possible worlds at which it exists.) If that is how things are, then perhaps a proposition can be necessarily *true* even if it does not necessarily *exist*, in which case the argument for necessarily existing propositions is unsound.

Reply: The objection analyzes necessary truth as essential truth. Call this analysis 'essentialism'. I reply that, essentialism implies that there *must* be propositions, which is implausible if all propositions are indeed contingent.[9] For consider that <there are propositions> is essentially true: necessarily, if it exists, then it is true. So, if essentialism is true, then <there are propositions> is itself *necessarily* true. (Someone might object here that although it is necessary that P, it doesn't follow that <P> is a necessary truth. I will address this objection when I discuss Objection 3.)

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[9] Cf. Plantinga 2003, pp. 229-30.

Consider, next, that if it is necessary that there are propositions, then it is not plausible that each and every proposition is contingent; if each proposition is contingent, then plausibly, they could all be absent together. Moreover, philosophers who think propositions are contingent typically think propositions are concrete material things, such as sentence tokens or brain states. And surely, there could be a world without sentence tokens or brain states. It seems better, then, to either drop essentialism or drop the thesis that every proposition is contingent. Either way, the objection falls away.

Objection 2: Recall premise (6): necessarily, if <P> is true, then <P> exists. Perhaps the inference from <P> is true to <P> exists is not necessary. Perhaps instead it is *possible* for <P> to be true without existing. One way to make sense of this suggestion is to make use of a distinction introduced by Kit Fine (1982) between 'inner truth' and 'outer truth'.[10] A proposition has *inner truth* relative to a world only if it exists in that world, whereas it can have outer truth relative to a world whether or not it exists in that world. An outer truth is supposed to be a truth that correctly describes a world without necessarily existing in that world. We may say that an outer truth is true *at* a world even if it isn't true *in* it. With this distinction in hand, perhaps we can say that <P> is necessarily true in the sense that <P> is true at every world, even though <P> does not exist *in* every world.[11]

Reply: I see two difficulties with the 'inner'/'outer' truth objection. The first is familiar: it is not easy to define 'inner truth' and 'outer truth'. We could perhaps treat the terms as primitive if

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[10] Alternatively, we might interpret the objection as proposing that there can be something that is true yet doesn't exist. This reading implies that there can *be* something that doesn't exist (by adjective dropping), which contradicts actualism. I suspect that most, if not all, advocates of contingent propositions would prefer not to include *non-existing* propositions in their ontology.

[11] Cf. Iacona 2003.

necessary, but it is preferable to have definitions. It would be nice to simply define the terms as follows: 'a proposition *p* is true relative to a world *w*' means the same as 'if *w* were actual, then *p* would be true', and '*p* exists in a world *w*' means the same as 'if *w* were actual, then *p* would exist'. But those definitions don't work because they imply that every outer truth *just is* an inner truth.[12] Perhaps there is a way for the advocate of contingent propositions to give definitions that capture the intended distinction between 'outer truth' and 'inner truth'. I am not myself aware of adequate definitions available to the advocate of contingent propositions, but I won't rule out the possibility.[13, 14]

There is a second and more serious difficulty. The difficulty has to with accounting for all the necessary truths that there seem to be. Consider that if <1=1> is a necessary truth, then it seems that it should also be *necessary* that <1=1> is a necessary truth (that is, <<1=1> is a

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[12] To draw out why, suppose *p* has outer truth relative to *w*. Then, according to the definition, if *w* were actual, then *p* would be true. But if *p* were true, then *p* would *exist*, since *p* cannot *be* anything, not even true, without existing. It follows that if *p* has outer truth relative to *w*, then *p* thereby has inner truth relative to *w*, since *p* exists in *w*.

[13] Speaks (2012, p. 559) gives helpful definitions of those terms. Speaks' account makes use of proposition-like truth conditions, and some of them would seem to be necessarily existent, such as the truth-condition for "there are worlds". So although Speaks' definitions are helpful, I don't believe they help the advocate of contingent propositions (who thinks *all* propositions exist contingently).

[14] Robert Stalnaker (2010, p. 25) proposes a definition in terms of 'entailment': *p* is true at *w* iff *w* entails *p*. But I am not sure what 'entailment' means here. On my understanding of 'entailment', '*x* entails *y*' is equivalent to 'necessarily, if *x* is true, then *y* is true'. But Stalker denies this equivalence to prevent 'truth-at' from collapsing to 'truth-in' (p. 30). Moreover, the following argument seems to show that Stalnaker's entailment is a mere contingent link:
> (1) Suppose that *p* entails *q* and that the entailment is *not* a contingent link: that is, necessarily, if *p* and *q* exist, then *p* entails *q*.
> (2) Then: every world entails <if *p* and *q* exist, then *p* entails *q*>.
> (3) <if A, then B> reduces to <<A> implies <B>>.
> (4) Necessarily, if <A> implies <B>, then <A> exists.
> (5) Therefore, <if *p* and *q* exist, then *p* entails *q*> entails that <*p* and *q* exist> exists. (3, 4)
> (6) Therefore, every world entails that <*p* and *q* exists> exists. (2, 5)
> (7) Therefore, <*p* and *q* exists> necessarily exists.
> (8) Therefore, *p* and *q* necessarily exist. (By existentialism, which Stalnaker accepts)
> (9) Therefore, worlds necessarily exist (by letting *p* be a world), which Stalnaker denies.

In addition to these difficulties, there is an **S4**-based objection that applies to Stalnaker's position. I express that objection in the main text next.

necessary truth> is a necessary truth). (This falls out of **S4** if 'necessity' is a predicate ascribable to propositions. If you think 'necessity' is not a predicate ascribable to propositions, then skip to Objection 3.) But if all propositions are contingent, then it is difficult to account for the necessity of this second proposition. Allow me to draw out the difficulty. Assume all propositions are contingently existing things. Let 'N' denote any necessary truth. And let 'CHAOS' name a possible world in which there are no sentence tokens, brain states, or anything else that *contingently* existing propositions might be. It follows that <there are no propositions> correctly describes (is true *at*) CHAOS. We may now deduce a contradiction by the following argument:

C1. N is a necessary truth.

C2. If N is a necessary truth, then so is <N is a necessary truth>.

C3. Therefore, <N is a necessary truth> is a necessary truth.

C4. Every necessary truth correctly describes every world.

C5. Therefore, <N is a necessary truth> correctly describes every world.

C6. Therefore, <N is a necessary truth> correctly describes CHAOS.

C7. If N is a necessary truth, then N is a proposition [a truth-value bearer].

C8. If N is a proposition, then there is at least one proposition.[15]

C9. Therefore*, <there is at least one proposition> correctly describes CHAOS.

(*) The inference from C6–C8 to C9 is justified by this schematic rule: if P implies Q, and if <P> correctly describes a world *w*, then <Q> correctly describes *w*.

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[15] To be clear: the inference from 'N is a proposition' to 'there is at least one proposition' does *not* presuppose the controversial premise that if N is true at a world, then N exists at that world. It relies instead upon the more modest schematic premise that if <*x* is *ø*> is true-at-a-*w*, then <*x* exists> is true-at-a-*w* (more exactly: <there is at least one ø thing> is true-at-w). This premise merely requires that if it is true at a world that a proposition has a feature (such as being true at every world), then it is also true at that world that that proposition exists (or that there is a proposition). This is plausible because it is plausible that there are no worlds at which *both* something is a ø thing *and* there are no ø things.

The result is that <there is at least one proposition> and <there are no propositions> are *both* true at CHAOS, which is contradictory. This is a surprising and troublesome result.

One way out is to give up the principle that necessary truths are necessarily necessary. But if this is the best way out, then we have made an important discovery: proponents of contingent propositions ought to give up a highly intuitive modal principle. I suspect that many proponents of contingent propositions would prefer to avoid that commitment. A different way out is to deny that 'is a necessary truth' can be truly predicated of a proposition. I examine that way out next.[16]

Objection 3: Perhaps sentential operators do not act as predicates. For example, '□ (1=1)' does not say of <1=1> that it is necessarily true. Rather, '□' is an operator that simply acts on some sentence to produce another sentence whose meaning is (normally) self-evident. If so, then one may deny the inference from

(1) □P

to

(6) □ <P> is true,

thereby blocking any argument that attempts to show that if it is true that □P, then it is necessary that <P> exists.

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[16] There is also the option of denying (C8) on the grounds that certain things, such as fictional characters, have features without existing. To my mind, this option is only intelligible if it reduces to the claim that there are things that have features but don't exist, which entails (by adjective-dropping) that there are things that don't exist. But I suspect that most advocates of contingent propositions would prefer to exclude non-existing particulars from their ontology.

Reply: One type of reply in the literature invites those who deny the inference from (1) to (6) to explain to us what '□P' means if it does not mean that <P> is necessarily true.[17] The goal of this reply is to show that every candidate account of what '□P' might mean is problematic. A drawback of this strategy, however, is that it leaves open the possibility of finding a new, successful account of '□P' or of leaving '□P' undefined.

But there is a reason to think that *if* there are true things, as advocates of contingent propositions think, *then* the inference from (1) to (6) is valid. The reason is contained within the argument I already gave. I will highlight the relevant portion of the argument here:

1. □P.

2. □P → □□P.

3. Therefore, □□P.

4. □ (□P → it is true that P).

5. □ (it is true that P → <P> is true).

6. Therefore, □<P> is true.

The key premises are (4) and (5). Premise (4) says that necessity entails truth. We have already seen an argument for this. Here I would like to just point out that (4) is no less plausible when expressed in terms of "outer truth": for all possible worlds *w*, if 'it is necessary that P' correctly describes *w*, then 'it is true that P' also correctly describes *w*. Notice that I do not presuppose that <it is true that P> is true *in* the worlds at which it is necessary; I only say that it is true *at* those worlds. Thus, even those who distinguish between outer and inner truth may find (4) appealing.

On behalf of (5), consider the inference from *it is true that P* to <P> *is among the true things*. There is something appealing about that inference, especially if there can be such things

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[17] See Carmichael 2010 and Plantinga 2003.

as *true things*. For suppose true things comprise a genuine category of being. Then it would seem that anytime it is *true* that such and such, there is automatically *something* that is true. So, for example, if it is *true* that snow is white, then <snow is white> is true. The inference here doesn't seem to be a mere contingent matter that just happens to be true in our world. The inference is based upon the very nature of truth. Assuming *truth* is a genuine category that can have instances, it stands to reason that this category would automatically have instances whenever it is indeed *true* that such and such. In other words, for any possible worlds *w*, if 'it is *true* that P' is itself true at *w*, then '<P> is true' is true at *w*. Again, I am not presupposing that a proposition must exist *in* the worlds at which it is true: I did not say that '<P> exists' is true at *w* merely if 'P' is true at *w*. Inner truth is not in play. The basic insight is this: if there *really is* the category of 'true things', and if it is indeed *true* that P, then there is something that plays the role of being a true thing. It seems to me, then, that (5) is a plausible inference from (1), given the preliminary assumption that true things comprise a genuine category of thing.

The above reasoning will be resisted, however, by those who don't treat 'is true' as a predicate. Someone might think that 'it is true that *P*' means the same as '*P*'.[18] Alternatively, one could take it to mean 'any (token) representation of that *P* is true'.[19] These ways of resisting the argument are worth serious consideration.

There are obstacles to not treating 'is true' as a predicate, however. I'll briefly point out two. First, one may argue that treating 'is true' as a predicate makes better sense of English grammar.[20] Observe, for example, that people ask, "Is it true?" not "Is it true that?" In the first case, 'it' ostensibly refers to something that can have a truth-value, where 'is true' acts as a

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[18] Cf. Strawson (1949, pp. 88-95).

[19] I am grateful to an anonymous referee for proposing this option.

[20] See, for example, Wilson 1990, pp. 23-5.

predicate of that thing. One might think, therefore, we at least treat 'is true' as a predicate in ordinary language. This consideration is far from decisive, but it is data to consider.

Second, treating 'is true' as a predicate enables us to make good sense of how truth is related to reality. Suppose there is the statement, 'Tibbles is on the mat'. When Tibbles sits on his mat, it seems right to say that the statement itself is *true*. And if you push the cat off, then that statement switches to false.[21] It appears, then, that truth is sensitive to reality. We may ask, "What does the truth of a statement have to do with the location of a cat?" A classical answer remains venerable: truth *relates* truth-value bearers (e.g., statements) to things in reality.[22] This account of truth, which continues to be the most popular view among philosophers,[23] implies that 'is true' expresses a relational property of truth-value bearers and so acts as a predicate.

Of course, alternative views of truth are available, and critiquing them would take me far beyond the scope of this paper. My goal here is only to draw attention to some of the significant implications of not treating 'is true' as a predicate. It is worth noting that many, if not most, advocates of a classical theory of truth have conceived of propositions as contingent representational items. So, if the most promising way of escaping my argument against contingent propositions is to give up this classical theory of truth, then that would certainly be a valuable discovery in its own right. I readily concede that one may escape the argument by denying that 'is true' is a predicate. But doing so is not without expense.

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[21] Maybe you don't think propositions can change truth-values (because you think propositions implicitly specify time information, and so are *eternally true* if true at all). Then translate the example. By *preventing* the cat from being on the mat at a particular time, I thereby prevent the statement from being true. The point is that a difference to reality implies a difference to the truth of a statement. Reality affects truth.

[22] For a recent articulation and defense of this view of truth, see Rasmussen 2013.

[23] According to *Phil Papers Surveys* (2009), 50.8% of philosophers surveyed favor the *correspondence* theory, which is (a version of) the relational view under consideration.

3. Wrap Up

I have argued that some propositions are necessarily existent. The core of the argument is devoted to showing how one might infer the necessary *existence* of a proposition from its being necessarily *true*. Advocates of contingent propositions might find in the argument a reason to deny certain modal systems, such as **S4** or **K**. Or, they might reject the Quinean meta-ontology used to motivate premise (5); or deny that 'is true' acts as a predicate. The value of the argument, as I see it, is the lessons it delivers: we've learned that (i) contingentism about propositions is incompatible with certain widely held principles of logic and ontology; and (ii) the famous distinction between inner and outer truth doesn't provide an easy way to avoid this incompatibility. Thus, we have uncovered a new pathway to the conclusion that some propositions must exist, and thus, that there must be something.[24]

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