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Some T-Biconditionals

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The *T-biconditionals*, also known as T-sentences or T-equivalences, play a very prominent role in contemporary work on truth. It is widely held that they are so central to our understanding of truth that conformance with them is indispensable to any account of truth that aspires to be adequate. Even "deflationists" and "inflationists" tend to agree on this point; their debate turns largely on just how central a role these biconditionals can play in a theory of truth. In the present paper, I want to bracket this debate about their "theoretical role" and focus on the T-biconditionals themselves. They are typically presented as entirely unproblematic, as models of simplicity, clarity, and obviousness. I confess that I find them rather more puzzling than that. The main purpose of the paper is to reflect on some of these biconditionals and to survey and explore some doubts one might have about their virtues.

I

The T-biconditionals come in a variety of different but related types. Two types stand out as the ones that figure most prominently in the current debate about truth. The standard examples are ('iff' abbreviates 'if and only if'):

(1) The proposition that snow is white is true iff snow is white
(2) The sentence 'Snow is white' is true iff snow is white

Each represents a large class of siblings following their corresponding patterns, or schemas:

(S1) The proposition that p is true iff p

(S2) The sentence 'p' is true iff p

with arbitrary declarative sentences of English replacing the occurrences of the dummy letter 'p'. The relevant difference between the two types is that, in the first, truth is applied to *propositions* while in the second it is applied to *sentences*. Let us distinguish, then, between T-biconditionals for propositions and T-biconditionals for sentences.[1]

The division between the two types of T-biconditionals coincides with a divide between two types of "approach" that pervades much of the literature on truth and much of philosophical literature in general: the *propositionalist* approach and the *sententialist* approach. Those who adopt the propositionalist approach tend to hold that truth and falsehood, and all concepts or properties that are implied by or otherwise involved with truth or falsehood (necessary truth, entailment, knowledge, belief, etc.), apply first and foremost to propositions.[2] Consequently, propositionalists focus on the T-biconditionals of the first type, taking them to be far more central to an adequate account of truth then the ones from the second type. Sententialists, on the other hand, focus on the T-biconditionals of the second type. Some adopt this approach for methodological reasons, taking it to offer a useful indirect strategy for understanding truth as applied to propositions; others adopt it because they hold that truth and falsehood apply primarily, or exclusively, to sentences.

We find a debate between *deflationists* and *inflationists* under each of the two

[1] Postponing the question what, precisely, the T-biconditionals themselves are.

[2] That is, to *what* is believed or thought, rather than to the state of believing or thinking, to *what* is said by uttering or writing a sentence, rather than to the sentence uttered or written; e.g., if we both believe that snow is white, then *what* we both believe is the proposition *that snow is white*. Propositions are most perspicuously named by that-clauses.

approaches. Generally speaking, deflationists hold that truth is not a substantive property in need of a genuine explanatory account. The T-biconditionals, they claim, already tell us all (or nearly all) there is to be told about truth. Deflationists about truth for propositions make this claim for the T-biconditionals of the first type. Deflationists about truth for sentences make it for the T-biconditionals of the second type. Their respective opponents, inflationists, reject these claims, maintaining that there is significantly more to truth for propositions and/or sentences than what is contained in the biconditionals. (This is not to say that one could not be both, say, an inflationist about truth for sentences and a deflationist about truth for propositions.) However, in spite of their disagreement on this point, in spite of their disagreement about how much "theoretical weight" the T-biconditionals can carry, all parties agree that the relevant T-biconditionals are of crucial importance to any account of truth; they agree that no account of truth that aspires to be adequate can dare to go against them.

I this paper I want to steer clear of the debate between deflationists and inflationists and concentrate on what they agree about, the T-biconditionals themselves. More specifically, I will focus on the *T-biconditionals for propositions* and on some closely related types. Except for occasional remarks, I will set the T-biconditionals for sentences aside. Made prominent by Tarski's work, they have received a considerable amount of attention already, and the main questions and worries they raise have been discussed at various places.[3]

[3] See: Tarski 1935, and 1944; Lewy 1947; Pap 1952; Quine 1953; Pap 1957; Tarski 1969; Lewis 1975; Thomason 1976; Gupta 1978; Peacocke 1978; Evans 1979; Davies and Humberstone 1980; Davies 1981, chaps. 1-2 & 8-9; Soames 1984; Etchemendy 1988; McGee 1993; Gupta 1993; Gupta and Belnap 1993, chap. 1.4-1.6; Field 1994; David 1994, chap. 5.5-5.9; Soames 1995, and 1999, chap. 4. These are some works bearing on issues about T-biconditionals for sentences related to the one's I discuss here with respect to T-biconditionals for propositions (their modal and epistemological merits).

II

Two comments on how to interpret the T-biconditionals for propositions. First, in my experience, claims like

(1) The proposition that snow is white is true iff snow is white

are not entirely perspicuous to the untrained eye and ear. (1) is intended as saying of the proposition *that snow is white* that it is true iff snow is white. This requires that the expression 'the proposition that snow is white is true' be taken as a sentence with 'is true' as the predicate and 'the proposition that snow is white' as the noun phrase. But there is a temptation to read the whole expression as a noun phrase, i.e., as 'the proposition *that snow is white is true*', answering to the question "Which proposition?"—a reading that makes nonsense of (1) because this noun phrase lacks a predicate there. Of course, in official philosophers' English, the phrase 'the proposition *that snow is white is true*' does not count as a well-formed noun phrase at all. Since the italicized part, taken as a unit, is itself a complete sentence, the noun phrase is as ill-formed as 'the proposition snow is white'. To make it grammatical, a second 'that' would have to be inserted, as in: 'The proposition that *that snow is white is true* is such and such'. But ordinary English allows dropping 'that's, especially from formulations as awkward as that, which gives rise to the misreading. Why not drop 'the proposition' and go with the form 'that p is true iff p'? Because this form is ambiguous in another way: 'that p' could also refer to a *fact*; and it seems wrong to call facts true. The form 'the proposition that p is such that it is true iff p' is ambiguous in yet another way. It is best to stick to (1). In case of emergency, one can resort to emphasis, italicizing or, when speaking, making a pause after the embedded that-clause.

Second, I have followed Gupta and Belnap (1993) and referred to them as biconditionals and T-biconditionals. Some authors call them "equivalences" or "T-

equivalences" instead (e.g., Tarski 1944, sec. 4; Horwich 1998). The latter terminology strikes me as misleading. An equivalence is some sort of relation between two items; consequently, calling (1) an "equivalence" suggests that we might read it as saying that the proposition *that the proposition that snow is white is true* is equivalent with the proposition *that snow is white*. This reading is tendentious. On the face of it, (1) does not talk about the proposition that the proposition that snow is white is true; it merely talks about the proposition that snow is white. Of course, someone, e.g., a deflationist of a certain sort, might want to propose, or argue, that the above reading is innocuous after all. But it seems inadvisable at best, question-begging at worst, to intimate its innocence through one's choice of words.[4]

III

Although the T-biconditionals are usually presented as models of simplicity, clarity, and obviousness, it is also acknowledged that there are in fact various problem cases. The most difficult are surely the ones that generate the Liar Paradox, which arises most immediately when formulated for T-biconditionals about sentences. Switching to propositions requires more involved formulations of the Liar that do not lead as directly into paradox as the sentential Liar. But it would appear that this merely creates a diversion—a bit more wiggle-room—and that paradox awaits the propositionalist a few steps farther down the road: the Liar afflicts both types of T-biconditionals.[5] There are more, albeit less dramatic, types of problem cases. It is not

[4] A deflationist about truth might also be a deflationist about equivalence. That is, she might hold that the equivalence claim *The proposition that the proposition that snow is white is true is equivalent with the proposition that snow is white* is itself equivalent with (1), her reasons being (a) the view that a claim *x* is equivalent with a claim *y* iff (*x* is true iff *y* is true), and (b) deflationism about truth. But this view would be part of her deflationary position and shouldn't be built into her terminology.

[5] The sentential Liar Paradox results from constructing a T-biconditional (for sentences) around the Liar sentence (L), where (L) = 'Sentence (L) is not true'. A propositional Liar has to be introduced with the sentence 'This proposition is not true'; or with sentence (P), where (P) = 'The proposition expressed by (P) is not true'; or with 'No proposition now expressed in this room is true'. The initial

obvious how to evaluate T-biconditionals involving Santa Claus, the Easter Bunny, and the like. T-biconditionals containing vague terms applied to borderline cases raise similar difficulties. Assume John's scalp exhibits a borderline case of baldness. How should we evaluate: "The proposition that John is bald is true iff John is bald"? It is plausible to think that it is at least *untrue* because its left-hand side is false and its right-hand side is neither true nor false. Even if one comes out against this evaluation in the end, it is hard to maintain that such T-biconditionals are obviously and unproblematically true.[6] Finally, there is the very large class of T-biconditionals containing demonstratives, indexicals, pronouns, and other context-sensitive devices; they will often be false or indeterminate (untrue) at best; viz., "The sentence 'He is hungry' is true iff he is hungry." Propositionalists like to think that they need not be troubled by such cases. The idea seems to be that there are no indexical or demonstrative propositions. Even if this idea is defensible (but see note 13), it pays the price that many propositions turn out to be rather difficult to identify: Which proposition does 'the proposition that I am here' refer to? Is it true iff I am here? It is hard to tell.

In sum, there are quite a few T-biconditionals that are problematic. I am not trying to suggest that the problems posed by them cannot be solved. I am merely reminding you that there are many T-biconditionals that do pose problems. A naïve observer might even be excused for finding it a bit curious that some T-biconditionals are treated as models of simplicity and obviousness, as bedrock for any theory of truth, when so many of their siblings raise difficult issues, or seem afflicted with various diseases ranging from untruth to paradox.

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move a propositionalist will want to make is to deny that such sentences express propositions. The move does not ward off paradox for very long; cf. Gupta and Belnap 1993, chap. 1.

[6] Propositionalists sometimes say they don't have to worry about vagueness because, unlike sentences, propositions are essentially either true or false (or: essentially determinately true or determinately false). This strikes me as a mere stipulation—a stipulation, moreover, that threatens to sever the connection between propositions as truth bearers and propositions as contents of beliefs, thoughts, and statements. Surely, many of our beliefs and thoughts are just as vague as the sentences

IV

T-biconditionals that are "relevantly similar" to the ones mentioned at the beginning are the favored cases. To use Kuhnian metaphors, they are generally treated as "paradigms" while the problem cases from the preceding section are treated as "anomalies". Let us, then, set the problem cases aside and turn to one of the paradigms instead:

(1) The proposition that snow is white is true iff snow is white

Here are some of the *virtues* that have been attributed to (1): *true*, *necessarily true*, *analytically true*, *conceptually true*, *axiomatic*, *a priori*, *obvious*, *uncontroversial*, *trivial*, *platitudinous*.[7] Ordinarily, the last two would not be regarded as virtues, but in the present context they are intended as such; they are intended to convey that this and the other paradigmatic T-biconditionals for propositions are bedrock, as secure as anything—"trivial" and "platitudinous" being often used nowadays where philosophers of a bolder age might have said "self-evident", "indubitable", or "clear and distinct".

Despite all this praise, (1) appears to suffer from a basic flaw. This was pointed out by G. E. Moore who observed, albeit about a slightly different sort of T-biconditional: "Plainly, I might have gone away without my friend believing that I had; and if so, his belief would not be true, because it would not exist" (Moore 1953, 276). A natural way to put the difficulty would be this: The left-hand side of (1) implies, or presupposes, that there is at least one proposition, namely the proposition that snow is white; the right-hand side, on the other hand, does not imply that there is

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we use to express them.

[7] Compare: Horwich 1998, pp. ix, 6, 17, 21, 37, 118, 124, 145; Alston 1996, pp. 27, 30, 35; Soames 1999, pp. 23, 35, 106, 230.

this proposition; hence, (1) is false, or in any case, not true. So, the worry is that (1) isn't even *true*—never mind the other alleged virtues. Moore's point seems rather elementary; it is surprising that the prima-facie difficulty it poses for T-biconditionals is rarely mentioned.[8]

One might respond that the right-hand side of (1) "materially" implies that the proposition that snow is white exists simply because the proposition does in fact exist, which makes the material conditional "If snow is white, then the proposition that snow is white exists" trivially true. This defense of (1)'s truth reads the 'iff' as a material biconditional, which seems fair enough. But it also depends on the assumption that there are propositions. If there are none, then half of all the (paradigmatic) T-biconditionals about propositions are not true, namely the ones whose right-hand sides are true, which includes (1). Note that it is only half-right to say that biconditionals of the form 'The proposition that p is true iff p' are "ontologically committed" to the existence of propositions. For, provided one counts their left-hand sides as false if the relevant propositions do not exist, the biconditionals whose right-hand sides are also false come out true without commitment to propositions. Of course, this works only for half of the paradigmatic T-biconditionals: acceptance of all of them does commit one to the existence of

[8] But it is noted by authors concerned with modal issues, see: Fine 1977, p. 136; and Adams 1981, p. 27; compare also Field 1994, p. 250, and David 2001, p. 688. The relevant passage from Moore, in which he also proposes an *adequacy condition* for truth-definitions, deserves to be better known. Moore first observes that, if *S* believes that p, then necessarily (*S*'s belief that p is true iff p); and he says that a "correct" definition of truth (for beliefs) must be one that "does not conflict" with the condition that *necessarily (S's belief that p is true iff p)*. He also points out that we might be tempted to think this condition itself yields a definition of truth, for we are tempted to assert: "To say that the belief that p is true is the same thing as to say that p". He argues that this temptation should be resisted, on the grounds that (a) the condition fails to tell us what property is shared by all and only the true beliefs, and (b) that p does not entail that *S*'s belief that p exists. See: Moore 1953 (written 1910-11), pp. 274-76. Note that Aristotle's formulation, which may be the earliest recognition of T-biconditionals, seems subtly sensitive to Moore's point (at least in Ackrill's translation): "If there is a man, the statement whereby we say that there is a man is true, and reciprocally—since, if the statement whereby we say that there is a man is true, there is a man" (Aristotle, *Categories* $14^{b}15$).

propositions.[9]

The commitment to propositions makes trouble for most of the *epistemic* virtues attributed to (1). Can anyone be sure about the existence of propositions?—sure enough to just proclaim, without qualifications, that (1) and all its siblings are true? Not really. Propositions seem to have some odd features. Quite a few philosophers have rejected them, some producing arguments that are not obviously fallacious. Philosophers are of course accustomed to calling claims "obvious", or even "uncontroversial", even when they know full-well that others reject these very claims or have produced respectable arguments for views incompatible with them. But this custom cannot really be taken at face value. Radical sententialists, Quine and others, reject at least half of the T-biconditionals for propositions on the grounds that they reject propositions, so these biconditionals are not uncontroversial. Moreover, the well-known fact that there are unsettled questions about the nature of propositions, combined with the presence of considerable rational disagreement about their very existence, shows that some measure of skepticism about them is appropriate for all of us, which means that (1) and its siblings are not really obvious, trivial, or platitudinous either. Due to the exalted nature of the epistemic virtues attributed to the T-biconditionals, any amount of skepticism about propositions must raise serious troubles, even when entertained in a muted form.[10] All one can do, it seems, is to claim some sort of *relative* or *in-group obviousness* for the T-

[9] I neglect the incoherent option that counts them all as true on the grounds that *both sides* are always false. By the way, cases of T-biconditionals in which the right-hand sides are indeterminate belong to the official problem-cases; whether they should be regarded as true, false, or indeterminate is under debate (and depends on the specifics of the problem-case at hand).

[10] For example, as a nagging suspicion that arises when reflecting on arguments along the following lines: "Surely, everyone must make some distinction between a sentence and its meaning, i.e., between a sentence and what is said by uttering it—even Quine allows for that much (cf. Quine 1970, 1-2). So, when you have uttered a sentence meaning that p, then what you said *is* that p. So there is something such that it is identical with *what you said*, namely the proposition that p. So…[fill in some steps]…there is a non-denumerable infinity of abstract and necessarily existing propositions." The more plausible the remaining steps (surprisingly few are needed), the more reasonable it seems to backtrack and worry about the initial steps.

biconditionals: if a person finds it obvious that there are propositions, or if she belongs to a group where it is (silently) taken for granted that there are, then the T-biconditionals will be obvious to her.

Although skeptical worries about propositions deprive (1) of its alleged epistemic virtues, they do not deprive it of the virtue of truth, *if* it has it—it's just that it is not obvious whether it has it. Then again, for all we know, propositions may well exist; for all we know, (1) may well be true. So let us grant the assumption that propositions exist (in particular, the proposition that snow is white), and let us see what (1) looks like from within a propositionalist perspective.

What about the second virtue on the list: *necessary truth*? Evidently, Moore's point makes trouble for that too. (1) is necessary only if the following conditional is necessary:

(3) If snow is white, then the proposition that snow is white exists.

But the necessary truth of (3) is less than obvious. It is less than obvious that snow could not have been white unless the proposition that it is existed. Look at the following inferences:

(4) Snow is white
Therefore, the proposition that snow is white exists

Snow is white
Therefore, God thinks that snow is white

As inferences go, they are a bit odd. You will consider them (informally) valid, *if*

you are a believer, otherwise not.[11] It is fairly obvious, then, that (3) is not obviously necessary. But is it necessary? There are competing views about what it takes for propositions to exist. They result in different evaluations of the modal status of the likes of (3) and (1).

On a traditional *Fregean* view, propositions are abstract, mind and language independent, necessary beings. If a proposition exists at all, then it exists necessarily. (3) is necessary because its consequent is necessary (and for the same reason the conditional "if snow is *not* white, then the proposition that snow is white exists" is necessary too). According to Fregeans, the T-biconditionals are indeed necessary truths; all of them—or at least, all the paradigmatic ones.

On a *Russellian* view, there are many propositions that do not enjoy that much ontological independence. So called *singular propositions* are said to depend for their existence on the objects they are about (cf. Kaplan 1977). Say the proposition that snow is white is such a singular proposition.[12] The proposition then depends for its existence on the existence of snow and is therefore a contingent being. Nevertheless, (3), and therefore (1), come out necessary because the existence of snow (and whiteness) is taken as sufficient to guarantee the existence of the singular proposition. However, as Kit Fine has pointed out, other T-biconditionals are not so lucky, namely those that contain negative singular existence claims or equivalents of such claims. Consider: "The proposition that snow does not exist is true iff snow does not exist". If snow did not exist, the singular proposition that snow does not exist would not exist either; but then this T-biconditional would not be true; hence, it is not a necessary truth.[13] So, on a Russellian view, all T-biconditionals of

[11] Horwich (1998, 121) says that "we are all prepared to infer 'The belief that snow is white' from 'Snow is white'. If he means *the belief* seriously, he must be talking to idealists. If he means it as an alternative to *the proposition*, the "we" must be an *in-group* "we".

[12] For convenience I treat 'snow' as a proper name of all that white stuff. If this seems problematic, you can replace the example with your favorite singular proposition about a contingent object.

[13] See Fine 1977, p. 136; cf. also Adams 1981, p. 27. At this juncture issues concerning the paradigmatic T-biconditionals connect with issues concerning one of the "official" problem cases,

this special class are contingent. The other (paradigmatic) T-biconditionals appear to be necessary. Of course, the Russellian and the Fregean both have to face the objection that conditionals like (3) are not obviously necessary, and that inferences like (4) are a bit curious.

On what Alston has called an *Aristotelian* view, propositions are abstractions, or "aspects", of states of thinking and do not have "a mode of being independent of their content-bearing involvements" (Alston 1996, 19). This entails that propositions can exist only if they are thought or entertained by someone. On one version of this view, the one that is primarily relevant in the present context, *all* propositions are regarded as contingent beings. Given that we do think or believe that snow is white, and assuming this is sufficient for the existence of the proposition that snow is white, (3) comes out as a contingent truth—after all, snow could have been white without anyone thinking that it is. The siblings of (3) come out as contingent too. So, on this view, the T-biconditionals are all contingent. (Should one say they are all contingently *true*, because as soon as they are entertained the relevant proposition is being thought of and *ipso facto* exists? Or should one say many of them are contingently untrue, though we cannot present any examples without making them true?)[14]

There are two alternate versions of the Aristotelian view. An Aristotelian who wants to insists that conditionals like (3) are necessary has to "turn around" and hold that snow could not have been white without anyone thinking that it is—and, of course, that in general it could not have been that p without someone thinking that p

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namely the ones involving pronouns, demonstratives, or indexicals. Kaplan (1977) and others have argued that sentences like 'I am hungry' express singular propositions. So, even if one holds that there are no indexical propositions, only indexical sentences, one will run into difficulties with T-biconditionals about the (non-indexical) propositions expressed by sentences like 'I do not exist'.

[14] Are there exceptions to the claim that conditionals like (3) are contingent on this view? Descartes thought so. He held that thinking is necessarily such that, if I am thinking, then the thought that I am thinking exists. But that doesn't seem all that plausible. What about: If I am thinking this thought, then the thought that I am thinking this thought exists? Can I, in my thought, restrict the reference of "this" to "I am thinking this thought"? I am not sure.

or considering whether p. This commits him either to *theism*, the view that there is a thinker who exists necessarily and necessarily thinks whatever can be thought (a Fregean version of Aristotelianism); or else to *anti-realism*, the view that reality depends on the thought-states of contingent thinkers like us (in some respects this is like a Russellian version). Remembering Moore's own formulation of his point, we might note that certain other popular T-biconditionals, following the pattern 'the belief that p is true iff p', lead directly into anti-realism, or else theism, when taken to be necessary truths.

The Aristotelian view has a linguistic variant that straddles the fence between propositionalism and sententialism. According to Ayer (1946, 88), the proposition that snow is white is the set of all sentences synonymous with 'Snow is white'. This makes propositions depend on the existence of sentences (sets depend ontologically on their members). If sentences are contingent beings, (3) and (1) come out as contingent truths, because snow could have been white even if 'Snow is white' and its synonyms had not existed, i.e., even if the relevant set had not existed. In addition, this view has a special feature not shared by any other view about propositions. Given plausible assumptions, it has the consequence that propositions are not essentially the propositions they are: the proposition (the set) that actually is the proposition that snow is white might have been a different proposition, namely if 'Snow is white' and all its synonyms had meant something different than what they mean. Now, since snow could have been white even if all the member-sentences of the set had meant that it isn't, and moreover, since the member-sentences of the set could have meant that snow is white even if snow had not been white, it follows that the T-biconditionals come out contingent in *both* directions.[15]

It is, then, hard to tell whether the T-biconditionals are necessary truths. Competing views about the nature and ontological (in)dependence of propositions

[15] This touches on debated issues concerning T-biconditionals about sentences; see section VII for a brief discussion.

pass different verdicts and it is not easy to decide which of these views, if any, is correct. Consequently, the necessary truth of the T-biconditionals is not uncontroversial, obvious, or trivial—but I should point out that it is usually not made explicit whether these epistemic virtues are meant to be attributed only to the truth of the T-biconditionals or to their necessary truth as well.

In sum, Moore's point makes *prima-facie* trouble for the virtues that have been attributed to the paradigmatic T-biconditionals for propositions. Their truth can and has been questioned; and if truth be granted, their necessity can still be questioned. And this, it appears, makes trouble for all the other virtues too. The more purely epistemic virtues (obvious, trivial, platitudinous) are in special trouble because they have the delicate feature that they fail to apply as soon as difficulties arise, even if some of the assumptions on which the difficulties are based are themselves open to further debate. But this is not the last word. Let's take the issue into a second round.

V

I have been careful to distinguish between T-biconditionals for propositions and T-biconditionals for sentences. But what about the T-biconditionals themselves? Are they propositions or sentences? My use of the term "biconditional" was deliberately neutral about this, one might say evasive. Also, I have followed general custom and "displayed" our paradigmatic T-biconditional for propositions, like this

(1) The proposition that snow is white is true iff snow is white

setting "it" off from the surrounding text and using the label '(1)' without being very explicit about what this label labels—the sentence that follows it, or the proposition expressed by this sentence.

Propositionalists hold that truth and falsehood (hence, necessary truth,

entailment, knowledge, and many others) apply primarily to propositions rather than sentences. This view combines organically with the view that propositions (including, of course, propositions about language) are the proper and primary objects of philosophical argument, reflection, and theorizing—sentences being only the means by which we express and communicate propositions. For propositionalists, the search for truth is the search for true propositions: *a fortiori*, the search for truth about truth is the search for true propositions about truth. So their primary interest must lie with *T-propositions* about propositions, as opposed to *T-sentences* about propositions. A propositionalist might feel that I have treated the T-biconditionals as if they were T-sentences, that I have not been sufficiently sensitive to the point that the virtues attributed to (1) are intended for the T-proposition expressed by sentence (1) rather than the sentence itself. So let us explicitly focus on T-propositions and let us see whether that makes a difference.

First an observation about the "odd" inferences I remarked on in the previous section, the ones I said needed to be valid in order for the T-biconditionals to be necessary, that is, inferences like:

(4) Snow is white

Therefore, the proposition that snow is white exists.

When one looks at this inference, as it is displayed in the space above, the argument looks strange, not quite right—it is clear that it is not obviously valid. But now let us recall the definition of (informal) validity: an argument is valid iff it is impossible that all its premises be true and it's conclusion not be true. What are the premises? What is the conclusion? According to a propositionalist, what is displayed above is not the real argument. The *real* argument is made of propositions. Its premise is the proposition that snow is white, and its conclusion is the proposition that the proposition that snow is white exists. Thought of this way, the quality of the

argument might suddenly seem to improve significantly. Someone might reason: It's impossible that the premise is true while the conclusion is not true; after all, the proposition *that snow is white* could not be true unless it existed, but that it exists is just what the conclusion says. Fregeans or Russellians might even applaud this reasoning, for they think the argument is indeed valid. Nevertheless, the reasoning is flawed. It overlooks that the conclusion has to exist too in order to be true (and in order to "say" anything). But the conclusion is not the proposition *that snow is white*, it is the proposition *that the proposition that snow is white exists*, and the existence of this proposition is not obviously established by the existence of the proposition that snow is white (you think it is, only if you are a believer). The point is, even when we think of (4) as the propositionalist asks us to, as made from propositions, the argument cannot somehow argue the materials for a T-proposition "into existence". Rather, their existence is presupposed as soon as we think of the argument in the way the propositionalist wants us to.

Assume, then, that T-proposition (1) exists;[16] it is the proposition that the proposition that snow is white is true iff snow is white. Before, we worried that the proposition that snow is white might not exist even if snow is white. But now it seems its existence is guaranteed by the very existence of the T-proposition: if T-proposition (1) exists, then the proposition that snow is white must exist too—it's right there, as it were, inside the T-proposition. Since this removes the only worry about their truth, T-propositions like (1) are *self-guaranteeing*: they must be true, if they exist at all.

This is a neat line of thought. Of course, it does not address any worries that arise from general skepticism about propositions; after all, it simply presupposes that the T-proposition exists. So it does not support the claim that the T-propositions are obvious or trivial in some absolute sense. But it does show that there is something

[16] To save space, I will use formulations like 'T-proposition (1)' to abbreviate cumbersome formulations like: 'the proposition that the proposition that snow is white is true iff snow is white'.

special about T-propositions: granted their mere existence, their truth follows right along. So, for one thing, one could now make a modified claim about *relative* obviousness and say that the truth of the T-propositions is obvious relative to the assumption that they themselves exist. More interesting points emerge when we bracket skeptical worries and look at things from within the propositionalist perspective. It appears that the self-guaranteeing argument is closely connected to some of the virtues I have not discussed so far. Considering the line of thought employed in that argument, it is natural to regard the T-propositions as *conceptual truths*. For, provided one thinks of propositions in general as complexes of concepts, one might say that the T-propositions are true in virtue of the very concepts of which they are made. One might also think of them as (partly) *structural truths*: true in virtue of only their structure plus the concept of truth.[17] Furthermore, take a traditional understanding of the *a priori*: A person knows a proposition a priori iff her knowledge of the proposition is independent of the evidence of her senses, exempting whatever sensory information she might need to understand the proposition in the first place. Putting this positively though somewhat roughly: One knows a proposition a priori iff understanding it is already sufficient for one's knowing it; and an a priori *proposition* is one that *can* be known a priori (cf. Chisholm 1989, chap. 4). Given this notion of the a priori, it is natural to regard the T-propositions as a priori propositions. The basic idea is that understanding the proposition that the proposition that p is true iff p *involves* understanding the proposition that p. But then the proposition that p must be there to be understood; so there can't be anything missing to keep one from knowing the whole proposition. Note that the little self-guaranteeing argument does not establish that T-propositions are necessary truths (which would require the additional assumption that they exist

[17] Almog (1989) says that propositions like the proposition that David Kaplan exists are structural truths, and he proposes that they are contingent logical truths—true in virtue of the logical structure of the world. He might want to hold that T-propositions are logical truths of this sort.

necessarily). So, an advocate of the view that propositions exist contingently could even offer the T-propositions as examples of *contingent* conceptual, structural, and a priori truths.[18]

However, the self-guaranteeing argument has a soft spot. The crucial step, namely the step from the existence of T-proposition (1) to the existence of the proposition "contained" therein, leans heavily on the assumption that propositions are complex wholes of some sort that have other objects, including other propositions, as "parts" or "constituents" and could not exist without them. The worry is that this compositional picture is just a picture and does not make any clear sense. For one thing, to explain why the propositions expressed by 'if snow is white then snow has a color' and 'if snow has a color then snow is white' are different, even though they have the same propositions as constituents, one would have to invoke the idea that there is a "structure", expressed by 'if p then q', that this structures is an additional constituent of the propositions, and that it is somehow "sensitive" to which proposition fills which gap of the structure. This idea is a bit foggy. A related proposal from Horwich (1998, 18) illustrates another problem. Horwich observes that the schema

(S1) The proposition that p is true iff p

yields the sentence expressing T-proposition (1) when applied to the sentence 'snow is white', i.e., when that sentence is substituted for the occurrences of the dummy-letter 'p'. He then proposes that the schema (S1) expresses a "propositional

[18] Take an Aristotelian view on which propositions are aspects of acts of thinking. The picture could be roughly this: at the moment someone first entertained the thought that the thought that snow is white is true iff snow is white, the T-proposition came into existence, guaranteed its own truth, and was known a priori. I should mention, though, that a *really* traditional notion of the a priori, requires not only that understanding that p be sufficient for knowing that p, but that it also be sufficient for knowing that it is *necessary* that p (cf. Chisholm 1989, chap. 4). Evidently, contingent truths could not be a priori on this notion.

structure" which, when "applied to" the proposition that snow is white, yields T-proposition (1). But it is a bit obscure why this would be so. For it seems, rather, that applying this propositional structure to the proposition *that snow is white* should yield the proposition that the proposition that *that snow is white* is true iff *that snow is white*—which doesn't make any sense at all. Somehow the application of the structure would have to "dissolve" the *thatish* nature of the proposition *that snow is white*. How would it do that?[19]

Unfortunately, the difficulties surrounding the picture of propositions as complex entities made up of parts or constituents cloud the otherwise appealing idea that the T-propositions are conceptual, structural, and a priori truths. This is because the implied *explanation* for why the T-propositions enjoy these virtues seems to rely to a considerable extent on that picture. The basic idea behind calling the T-propositions a priori, for example, seems to be this: in grasping the T-proposition *that the proposition that p is true iff p* we grasp its parts, and since the embedded proposition, *that p*, is one of its parts, we don't need extraneous information to see that the T-proposition is true. Such an explanation is problematic to the degree to which the underlying picture is problematic.

Chisholm once suggested that an object *x* could be said to be a constituent of a proposition *y* iff *y implies x* to have some property F.[20] On this notion of constitution, snow counts as a constituent of the proposition that snow is white because the proposition implies snow to have the property of being white, and the proposition that snow is white counts as a constituent of T-proposition (1) because the latter implies the former to have the property of being true iff snow is white.

[19] In the first quarter of the last century, Frege, Russell, and Wittgenstein were troubled quite a bit by these sorts of problems.

[20] See Chisholm 1976, pp. 28-9, 199. He said a proposition *y implies x* to have a property F iff there is an individual concept C, such that *y* entails the conjunction of C and F, and *x* has C; and proposition *y entails* a property F iff *y* is necessarily such that, if *y* is true then something has F, and whoever accepts *y* believes that something has F. The final clause in the definition of entailment seems designed to keep a proposition from having any necessary being as one of its constituents.

However, the notion is defined in terms of truth (via the notion of implication). To say that the proposition that snow is white is a constituent in this sense of the T-proposition means (in part) that the T-proposition could not be *true* unless the proposition that snow is white existed and had some property. Consequently, this "logical" notion of constitution is of little use if one wants to employ the self-guaranteeing argument. The point of that argument was that a T-proposition guarantees its own truth in virtue of its constituent structure. Once its "constitution" is defined in terms of a necessary condition for the truth of the T-proposition, the point is lost. The logical notion is too thin to serve the use one would like to make of the idea of propositional constituents.

The competing views about the nature of propositions tend to employ, more or less explicitly, a thicker notion of constitution, one tied up with (some) intuitions about parts and wholes. Those who defend a Fregean view of propositions tend to think that propositions are somehow complexes of purely abstract objects (properties and other propositions). Russellians extend the list of eligible constituents; they hold that some propositions are not only "grammatically" singular but "metaphysically" singular, having necessary and/or contingent objects as genuine constituents without which they could not exist. (Russellians tend to identify, or at least represent, the proposition that David Kaplan is a philosopher by the ordered pair ⟨Kaplan, being a philosopher⟩ whose members are Kaplan himself and the property of being a philosopher.) Aristotelians hold that propositions are sequences of ideas or mental representations. Views of this sort can underwrite the self-guaranteeing argument and offer accounts like the one of the a priority of the T-propositions that I sketched above. On the downside, they have to come to terms with the difficulties involved in applying the part-whole picture to propositions.

Even if successful (setting aside worries about propositional constitution), the self-guaranteeing argument does not establish that T-propositions are necessary truths. It seems that would require the additional assumption that the T-propositions

are necessary beings, an assumption which the advocates of the Fregean view about propositions are happy to make. But the Russellians hold that singular propositions about contingent objects have these objects as constituents, they depend on them for their existence and are therefore contingent beings. As I mentioned earlier, this leads Russellians to deny that certain T-biconditionals express necessary truths (especially the ones that talk about negative singular existential propositions). But now, as we focus more explicitly on the propositions expressed by the T-biconditionals, it appears that the problem Russellianism poses for the T-propositions must be much more serious than I suggested earlier. A T-proposition is itself a singular proposition about the proposition it "embeds"; it depends for its existence on the embedded proposition. If the embedded proposition is in turn a singular proposition about a contingently existing object, then that contingency will be inherited by the embedding T-proposition. Consequently, the T-proposition will not be a necessary truth, for it would not exist if the object in the embedded proposition did not exist. Consider our T-proposition (1): if snow did not exist, then the proposition that snow is white would not exist; but then the proposition that the proposition that snow is white is true iff snow is white would not exist either, hence it would not be true. So, Russellians appear to be committed to the view that there are very many T-propositions that are not necessary truths.[21]

Russellians do have *something* to offer to account for the air of necessity that

[21] Could Russellians reject the premise that T-proposition are singular propositions? Not easily. Their over-all position is based on the idea that sentences with "rigid designators" express singular propositions containing the designated object as a constituent (a rigid designator is said to be an expression that refers to the same object in every possible world in which the object exists, e.g., a proper name; cf. Kripke 1972, p. 49.) *That-clauses* are generally regarded as rigid designators of the propositions they designate; if they are also descriptions, then they are essential descriptions, describing (and designating) the same proposition in every world in which it exists. To put this non-linguistically: although the proposition most favored by truth-theorists could have failed to be the proposition most favored by truth theorists, the proposition *that snow is white* could not have failed to be the proposition that snow is white. Since Russellians themselves advocate this view about that-clauses, they hold that sentences with that-clauses express singular propositions containing the proposition designated by the that-clause as a constituent. (It should be noted, however, that Ayer

surrounds all the T-propositions. Ludwig is my friend's dog. He is a contingent being. Still, there is an air of necessity surrounding the proposition that Ludwig is a dog. The Russellian can say that this is because Ludwig is *necessarily* such that he is a dog. To use possible-world language, although Ludwig does not exist in every possible world, he is a dog in every possible world in which he exists. Similarly, the proposition that snow is white is necessarily such that it is true iff snow is white. It has the property of *being true iff snow is white* in every world in which it exists, although it does not exist in every world. This holds quite generally for every instance of

(S1*) The proposition that p is necessarily such that it is true iff p.

Every proposition *that p* has the property of *being true iff p* in every world in which it exists, it's only that in the cases where *that p* is a singular proposition about a contingent being the proposition does not exist in every world, consequently it does not have the property in every world. This shows that the Russellian can account at least to some extent for the air of necessity surrounding the T-propositions. But then again, a detractor might add that what it *primarily* shows is that it is confused to regard the T-propositions as displaying fundamental necessary truths about the nature of *truth*: this confuses them with the instances of (S1*) each of which displays a fundamental truth about the nature of *propositions*, saying of a given proposition that it has its truth conditions essentially.[22]

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might have vetoed the present majority opinion about that-clauses; cf. the text to note 12.)

[22] I should emphasize that Russellians typically agree with Fregeans about purely general propositions; they take them all to be necessary beings. So, according to both views, general propositions pose no modal problems for the T-propositions that embed them. It might be entertaining to consider a case adapted from John Buridan (*Sophismata*, chap. 8.1) that illustrates what is involved in taking (general) propositions to be necessary beings. Consider the T-biconditional: "The proposition *that no proposition is negative* is true iff no proposition is negative". One might think, at first, that this should give even the Fregeans trouble, for if there were no negative propositions then the proposition that no proposition is negative would not exist. But no, for the Fregean holds that it is

Excursus.

The Russellian view about the nature of propositions is popular. The idea that the T-propositions are all necessary is popular too. Yet, on the face of it, it does not look like they go together well. I would like to pursue this issue a bit further. (Readers not fond of digressions into arcane modal issues might want to skip.) Could there be a Russellian defense of the necessity of the T-propositions after all? We have just seen that a Russellian can point out that he is a at least able to account for why the T-propositions "feel" like necessary truths. But why so meek? Let's try out something much more radical. Ludwig is a dog. In fact, Ludwig is a dog in every world in which he exists. So, Ludwig is necessarily a dog. We have granted that T-proposition (1) exists. The *bold* Russellian now argues analogously: T-proposition (1) is true. In fact, it is true in every world in which it exists. So, T-proposition (1) is necessarily true. Bingo?

The first thing that comes to mind is that our Russellian will run into trouble with the notion of *existence*. Ludwig exists. Ludwig exists in every world in which he exists. So, Ludwig exists necessarily. This seems awkward. Moreover, it is detrimental to the Russellian because it keeps him from expressing his own view. After all, he needs to be able to say of various things (Ludwig, T-proposition (1)) that they are contingent beings, which means that they do not exist necessarily, but this would be incoherent if it meant that they exist in a world in which they do not exists. To this objection, the Russellian could respond, not implausibly, by making an exception: Ludwig exists necessarily, he could say, only if Ludwig exists in every world, period—existence is special.

The second objection that comes to mind is that our bold Russellian is using a

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impossible that no proposition is negative (all those negative propositions are necessary beings too, including the proposition that no proposition is negative), so the biconditional expresses a necessary truth. Since the proposition involved is general, Russellians give the same verdict. But the example

verbal ploy. To say that Ludwig is necessarily a dog is ambiguous. In one sense, the *de re* sense, it means that Ludwig is a dog in every world in which he exists, which is true. In the other sense, the *de dicto* sense, it means that the proposition *that Ludwig is a dog* is true in every world, which is not true because Ludwig does not exist in every world. Since the Russellian believes that certain T-propositions are as contingent as Ludwig, he must give the same verdicts about them. He must say that T-proposition (1) is necessarily true in the sense that it is true in every world in which it exists (*de re*), but not necessarily true in the sense of being true in every world (*de dicto*), for there are worlds in which, according to him, it does not exist.

But the reasoning in this objection seems confused, misleading, and contentious. First, the analogy that is being drawn is confused. The alleged *de dicto* modal claim was supposed to be "the proposition that Ludwig is a dog is necessarily true". But then the analogous *de dicto* claim must be "the proposition that T-proposition (1) is true is necessarily true" and not, as the objection suggests, the claim that T-proposition (1) is necessarily true; the latter is analogous to saying *de re* Ludwig that he is necessarily a dog. Second, it is misleading to refer to these claims as *de dicto* anyway, because they are really just *de re* modal claims about propositions. Third, it is contentious to treat modal claims about propositions differently than modal claims about other things. It is said that "Ludwig is necessarily a dog" means that he is a dog in every world *in which he exists*, while "the proposition that Ludwig is a dog is necessarily true" is said to mean merely that the proposition is true in every world. This begs the question in favor of the Fregean who holds that the proposition that Ludwig is a dog is a necessary being composed exclusively of other necessary beings, say, Ludwigity (his individual essence, individual concept, haecceitas) and the property of being a dog. The Russellian holds that this proposition is a contingent being like Ludwig is (or, to use a better

poses a difficulty for Aristotelians who think that *all* propositions are contingent beings.

comparison, it is a bit like an impure set that has contingent objects as elements and depends on them for its existence). So our Russellian sees no non-question begging reason for treating propositions any differently than objects in general (Ludwig, impure sets, pure sets, God) with respect to modal matters. He maintains that the claim "the proposition that Ludwig is a dog is necessarily true" must be taken to mean that the proposition *that Ludwig is a dog* is true in every world in which it exist, period.

Our bold Russellian has relinquished the standard principle that a proposition is necessarily true if and *only if* it is true in every world. This may sound shocking at first. But he takes this principle to beg the question in favor of the Fregean. He proposes an understanding of modality that is neutral with respect to the issue whether the objects of modal attributions are necessary or contingent beings. The proposal is this: Except when 'F' expresses existence, "*x* is necessarily F" never says anything more than "*x* is F in every world in which it exists", which collapses into "*x* is F in every world" in case *x* is a necessary being (a being that exists in every world); this holds entirely generally for arbitrary *x*—the standard principle is merely a limiting case applicable where *x* ranges over propositions that exist necessarily.[23]

Our bold Russellian holds that the following *are all unequivocally true*, even though the objects involved are all contingent beings:

(5) Ludwig is necessarily a dog,

(6) The proposition that Ludwig is a dog is necessarily true,

[23] Where our Russellian says that Ludwig is necessarily a dog, others (e.g. Plantinga 1983, 16f.) would say that he is *essentially* a dog (he is a dog in every world in which he exists). So we could think of our Russellian as advancing the view that necessity *is* essence and nothing more/else—remembering, of course, that propositions have essences too. Note that a view that wants to distinguish essence from necessity also has some difficulties with existence. For it turns out, somewhat oddly, that everything exists essentially. Plantinga accepts this, but he points out that only necessary beings have existence necessarily.

(7) T-proposition (1) is necessarily true,

(8) The proposition that T-proposition (1) is true is necessarily true,

Note that *all* these claims are *de re*, according to our Russellian. Note especially that (6) is true, according to our Russellian. The proposition that Ludwig is a dog is a singular proposition that exists if and only if Ludwig and doghood exist. But we know from (5) that all the worlds in which Ludwig exists are ones in which he is a dog; consequently, the proposition that Ludwig is a dog is true in every world in which it exists. Precisely analogous reasoning yields (8) from (7).

The Fregean treats the two pairs unequally. Unlike the Russellian, he holds that (5) is true but (6) false because the proposition *that Ludwig is a dog* exists in all worlds while Ludwig does not. Like the Russellian he holds that (7) and (8) are both true. But his reason for this is rather different. (7) is true because T-propositions cannot fail, since their embedded propositions are necessary beings. (8) is true because (7) is and because the proposition *that T-proposition (1) is true* and T-proposition (1) both exist in all worlds. Evidently, our Russellian wants to have it both ways. He wants to regard all these claims as true even though he takes all the objects involved to be contingent beings. Can he have it both ways?

Consider the following objection: (a) Ludwig is necessarily a dog. Yet, Ludwig is a contingent being and might have failed to exist, so (b) it is possible that Ludwig does not exist. Surely, if he had not existed, it would not have been true that Ludwig is a dog, that is (c) necessarily, if Ludwig does not exist, then it is not true that Ludwig is a dog. But now we can infer from (b) and (c) that: (d) it is possible that it is not true that Ludwig is a dog, i.e., it is not necessarily true that Ludwig is a dog. So we have both:

(a) Ludwig is necessarily a dog,

(d) It is not necessarily true that Ludwig is a dog.

How could it be that both Ludwig is necessarily a dog while it is not necessarily true that Ludwig is a dog? One would like to respond that they are both true because, even though Ludwig is a dog in every world in which *he* exists, the proposition *that Ludwig is a dog* is not true in some of the worlds in which *it* exists. But this response takes (d) to be equivalent to:

(e) The proposition that Ludwig is a dog is not necessarily true.

Yet we have seen that the Russellian must reject (e). On his view, the proposition *that Ludwig is a dog* exists in just those worlds in which Ludwig is a dog, for it depends only on him (and doghood) and he is a dog in every world in which he exists—that was the argument for (6).[24]

Claim (d), one might say, is a *genuine de dicto* claim employing the operator 'it is not necessarily true that' applied to a sentence 'p'. Normally, one would convert such a claim into the *de re* form 'the proposition *that p* is not necessarily true'. But our Russellian must prohibit this conversion, for it would yield (e) which he must reject. This seems to leave him without an explanation for the now puzzling combination of (a) and (d): if (d) does *not* amount to (e), doesn't it just *have* to mean something that contradicts (a)? Please note, by the way, I am discussing Ludwig mostly for the sake of simplicity. Making the appropriate replacements, one arrives by exactly analogous reasoning at the conclusion that the Russellian seems committed to both: (a*) T-proposition (1) is necessarily true, and: (d*) It is not necessarily true that T-proposition (1) is true—a combination that is, to put it mildly,

[24] Note also that (e) would allow one to derive: "It is not necessarily true that the proposition that Ludwig is a dog is true iff Ludwig is a dog." For we know that, according to the Russellian, the proposition that Ludwig is a dog exists in just those worlds in which Ludwig is a dog. But now (e) tells us that there are worlds in which the proposition *that Ludwig is a dog* exists and *fails* to be true. So it would follow that there are worlds in which the proposition that Ludwig is a dog is not true even

rather puzzling.[25]

Our Russellian must either reject (d) or explain how it is compatible with (a) without falling back on (e). Let us look at the second premise of the argument: (b) It is possible that Ludwig does not exist. Note that our Russellian should not allow this to be converted into the *de re* claim that the proposition *that Ludwig does not exist* could have been true. The justification for (b) was that Ludwig is contingent, as indeed he is. But the proposition that Ludwig does not exist could not have been true, according to our Russellian. For, in worlds in which Ludwig exists, it is false; and in worlds without Ludwig it does not exist, hence it is not true in such worlds. So what does (b) say? It was supposed to be justified by Ludwig's contingency, which strictly speaking justifies a *de re* claim about Ludwig: (b') Ludwig might not have existed. The Russellian might say that conversion of this into (b) is not allowed either (any such conversions being allowed only when necessary beings are involved)—or alternatively, he might say that the proposition expressed by (b) *is* the proposition that Ludwig might not have existed because there are no modal-scope distinctions for singular propositions.[26]

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though Ludwig is a dog in those worlds.

[25] As far as I can see, Fregeans (though not Frege himself) typically treat propositions about individual propositions, e.g., T-proposition (1), as singular propositions in a Russellian sense, i.e., as having the propositions they are about as constituents. You might now ask: How does the Fregean keep the (a*) & (d*) problem from arising for his own position, after all, he takes both (7) and (8) to be true, much like the Russellian takes both (5) and (6) to be true, which is what creates the problem. The answer is, of course, that premise (b*), namely "It is possible that T-proposition (1) does not exist" is a necessary falsehood according to the Fregean.

[26] The argument given above is influenced by Plantinga's (1983) *reductio* that aims directly at the heart of any Russellian position. Take *X* to be any being that is contingent according to a Russellian. (i) Possibly, *X* does not exist. If so, then (ii) the proposition *that X does not exist* could have been true. Now (iii) if that proposition had been true, it would have existed; but also (iv) if that proposition had been true, *X* would not have existed. Putting (iii) and (iv) together yields that (v) if the proposition *that X does not exist* had been true, then it would have existed and *X* would not have existed. Putting this together with (ii) yields the conclusion: (vi) it is possible that both the proposition *that X does not exist* exists and *X* does not exist. This contradicts the central Russellian thesis that all singular propositions about contingent objects depend for their existence on the objects they are about and could not exist without them. Our Russellian should reject the step from (i) to (ii). The latter is false, he should say, and (i) must be interpreted as (b').

Now, let us reconsider premise

(c) Necessarily, if Ludwig does not exist, then it is not true that Ludwig is a dog.

It is formulated as a *de dicto* claim and so does not clearly fit the premise that Ludwig might not have existed. But there seem to be *de re* alternatives available. One would be to take it as making a claim about Ludwig and the proposition that Ludwig is a dog: (c') Ludwig and *that Ludwig is a dog* are such that, if the first had not existed, then the second (which does in fact exist) would not have been true (which is not to say that it would have been false). I find it hard to see how the Russellian can reject this. Note that when explaining why the proposition that Ludwig does not exist could not be true, the Russellian had to say that it is not true in worlds without Ludwig (because it does not exist in such worlds). But then it must also be acceptable to say that the proposition that Ludwig is a dog is not true in worlds without Ludwig (because it does not exist in such worlds). But then we can infer from (b') that, since Ludwig might not have existed, the proposition that Ludwig is a dog might not have been true. But this is just claim (e), the claim that the proposition that Ludwig is a dog is not necessarily true—and we have already seen that the Russellian cannot accept (e).

An alternative would be to take the 'true that' in (c) as just a scope marker for negation ensuring that we don't read the consequent as attributing the property of non-doghood to Ludwig. On this reading it would simply say: (c") If Ludwig had not existed, he would not have been a dog—which the Russellian clearly hast to accept. Together with (b') this will yield the conclusion that Ludwig might not have been a dog. Does this go together with: (a) Ludwig is necessarily a dog? It does not seem to. The Russellian wanted to spell out '*x* is necessarily F' as saying that *x* is F in every world in which it exists. So '*x* is not necessarily F' should come out as saying that there is a world in which *x* exists and in which *x* fails to be F. But this would make

the claim that Ludwig might not have been a dog incompatible with (a), which says that he is a dog in every world in which he exists. The Russellian, it seems, would like "Ludwig might not have been a dog" to come out as something like "There is a world in which Ludwig lacks doghood". But it's not really clear what this might mean. Moreover, it would amount to treating claims like "Ludwig might not have been a dog" as somehow special—but our bold Russellian wanted to maintain that only existence is special.

I find the bold Russellian's position attractive. Unfortunately, it has serious difficulties accounting for genuine *de dicto* modal claims; hence, it is doubtful whether it can make good on its promise that all the necessity there is is the one that allows us to say that Ludwig is necessarily a dog. Ludwig, you remember, was doing duty for T-proposition (1). Our Russellian wanted to maintain, unflinchingly and without qualifications, that all T-propositions are necessarily true—*all* of them, even the ones that are contingent beings, like T-proposition (1). It is not easy to see how he can make good on this bold claim. But maybe this is not quite the last word.

There is a fundamental modal principle about truth that tends to play an important role in discussions about the nature of truth and modality:

(9) A proposition cannot be true (or false) unless it exists,

or alternatively, every proposition is necessarily such that it is true (or false) in a world only if it exists in that world. Principle (9) has played a very crucial role in my discussion of the modal status of T-propositions. Every time I argued that some/all T-propositions come out contingently true on a position on which some/all propositions exist contingently, I relied more or less explicitly on (9). Advocates of contingently existing propositions who nevertheless feel that the T-propositions are necessary may find themselves wearying of this principle; they may feel motivated to question it.

Consider, in particular, Aristotelians who hold that all propositions depend for their existence on our thought states and are therefore contingent. They have to contend with a rather straightforward *reductio*: "You agree that the proposition *that there are no propositions* exists (after all, we are entertaining it right now). Assume, for *reductio*, that all propositions exist only contingently, i.e., assume it is possible that there are no propositions. If so, then it is possible that the propositions that there are no propositions is true. But that's not possible. For, to be true, the proposition would have to exist, whereby it would falsify itself. So, the proposition that there are no propositions is necessarily false. So some propositions exist necessarily." Although the argument really only establishes that *one* proposition exists necessarily, namely the proposition that there are no propositions, it is rather damaging to the Aristotelian. It would be strange to hold that there is exactly one proposition that is a necessary being. So the Aristotelian may well be tempted to resort to rejecting (9) which is the premise that seems most crucial to the *reductio*.

Could one seriously reject (9)? I do not know of anyone who does. However, some advocates of contingently existing propositions propose that the problems seemingly posed by (9) can be resolved once the following is noted: although a proposition cannot be true *in* a world in which it does not exist, it can be true *of* a world in which it does not exist.

The basic idea is originally due to John Buridan; it has been taken up by others.[27] Buridan considers the inference "Every proposition is affirmative, therefore no proposition is negative" which he regards as intuitively valid. But, as he points out, it poses a problem for those who take all propositions to be contingent beings. The premise could be true, he says, because God could destroy all negative propositions, but the conclusion could not possibly be true, for to be true it has to

[27] See John Burdian, *Sophismata* 8.1; Prior 1962 and 1969; Fine 1977; Adams 1981; Pollock 1985; Fine 1985; and Forbes 1989, chap. 3; cf. also Plantinga 1983 and 1985. For somewhat corresponding views with respect to sentences, compare: Thomason 1976; Kaplan 1977, Gupta 1978; Evans 1979;

exist, but it is false as soon as it exists. He then offers a revised definition of validity to account for the intuitive validity of the argument. The definition turns on a distinction between the "possible" and the "possibly true" corresponding to his observation that, intuitively, it *could* be that no proposition is negative, though the proposition that no proposition is negative *could not* be *true*. A proposition is *possibly true* iff there is a world *w* such that the proposition exists in *w* and is true *in w*—the notion of truth-in conforms to principle (9). A proposition is *possible* iff it is true *of* a world; roughly, iff it would accurately describe the way things are in *that* world. To be true *of* a world, a proposition does not have to exist *in* that world—the notion of truth-of does not conform to principle (9). Note that Buridan's proposal allows the conversion of the *de dicto* form 'it is possible that no proposition is negative' into the corresponding *de re* claim, because the latter merely says of the proposition *that no proposition is negative* that it is possible.

According to Buridan, the proposition *that no proposition is negative*, though not possibly true, is still possible (assuming the view that propositions exist contingently), because things could have been the way that proposition would say they are. The Aristotelian can now be saved from the above *reductio*, not by rejecting (9), but by rejecting another assumption on which the *reductio* relies, namely the assumption that the premise "all propositions are contingent" commits the Aristotelian to "the proposition that there are no propositions is possibly true".

Say you are an Aristotelian who imagines a world in which snow is white but in which there are no thinkers. Then your thought/the proposition that snow is white is true *of* that world, hence possible, but not true *in* that world, because the proposition does not exist in that world. Say you are a Russellian who holds that the proposition that Ludwig does not exist is not possibly true, because it is false in all worlds in which it exists. Still, the proposition is possible because it is true *of* worlds

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Davies and Humberstone 1980; Davies 1981.

in which Ludwig does not exist. Very good, you might say, but how does all this relate to the issue at hand, how does it help with the idea that all T-propositions are necessary? Not much, it appears at first. For, according to the Aristotelian, T-proposition (1) turns out not to be true *of* every world either. As we have just seen, the proposition that snow is white is true of the world imagined by the Aristotelian, but the proposition *that the proposition that snow is white exists* is not true of that world, yet it would have to be in order for the proposition *that the proposition that snow is white is true* to be true of that world. Similarly, according to the Russellian, the T-proposition embedding the proposition *that Ludwig does not exist* is not true of every world. The latter proposition is true of worlds in which Ludwig does not exist, but *in* such worlds the proposition does not exist, yet the T-proposition implies of such worlds that it does exist in them. So it turns out that contingently existing T-propositions are neither true *of* nor *in* all worlds—it seems they are not necessary in any sense.

But now the bold Russellian might try to stage a comeback, adopting Buridan's proposal to get himself out of the trouble we found him to be in. The bold Russellian, you recall, holds that T-proposition (1) is true in every world in which it exists, which according to him means it is necessarily true, period. But he seemed unable to explain a certain puzzling combination of modal claims he was committed to, one of which involved a genuine *de dicto* modality. Letting Ludwig again do duty for the T-proposition, he could now try to explain the odd combination of

(a) Ludwig is necessarily a dog,
(d) It is not necessarily true that Ludwig is a dog,

consistent with his commitment to reject

(e) The proposition that Ludwig is a dog is not necessarily true

and to accept its opposite, namely: the proposition that Ludwig is a dog is necessarily true. The Russellian affirms (a) but now he firmly rejects the *de dicto* claim (d). The latter, he says, is not derivable from the premises used in the argument considered earlier, for Ludwig's contingency only justifies the claim that it is possible that Ludwig does not exist. The *de dicto* claim that *is* derivable from the premises (thanks to Buridan) is rather: (d') It is not necessary that Ludwig is a dog—which now *can* be converted (thanks to Buridan again) into: (e') The proposition that Ludwig is not a dog is possible—which is consistent with rejecting (e). So, replacing Ludwig again, the bold Russellian now claims that T-proposition (1) is necessarily true, and he claims that he (or rather Buridan) can account for *de dicto* modality and explain away the prima-facie odd consequences of his view. [28]

However, it's unclear whether this can really work in the end. The bold Russellian wanted to be able to claim, *without flinching*, that all the T-propositions are necessarily true. But isn't he flinching after all? He admits to (e'), which seems to commit him to the claim (substituting for Ludwig again) that the proposition that T-proposition (1) is true is not necessary. So he holds that, though all T-propositions are necessarily true, some are not necessary, i.e., not true *of* every world. The worry is that this might just be a convoluted way of conceding that some T-propositions are not necessarily true. Moreover, Buridan's second notion of possibility is problematic for the Russellian. Buridan starts with the standard medieval formula for truth: a proposition is true iff things are as the proposition says they are (*sicut significat, ita*

[28] The combination bold Russellian + Buridan resembles in some respects Adams's (1981, 18-32) position on the metaphysics and logic of modality; although Adams would, I take it, be quite unhappy with the *bold* part of the Russellain. Note, by the way, that I've allowed myself primitive possible-world language. Adams treats possible worlds as (constructed from) maximally consistent sets of actually existing propositions. He describes how, given what I call a Russellian view, the worlds will "vary" in size. That's because a world in which I would not exist includes no singular propositions about me: "it represents my possible non-existence, not by including the proposition that I do not exist but simply by omitting me" (Adams 1981, 22). For another position that resembles bold Russellianism + Buridan to some extent, see Almog 1989.

est). Introducing his second notion of possibility, he expands this to something which, in possible-worlds language, can be rendered as: a proposition is true *of w* iff in *w* things are as the proposition *would say* they are if it existed in *w*. But this is not acceptable to most propositionalists, including our bold Russellian. It implies that a proposition could have had a different truth condition than it actually has. But only sentences have their truth conditions contingently; propositions have their truth conditions essentially. To be acceptable to the Russellian, Buridan's account of the second notion of possibility would have to be modified so that a proposition comes out as possible iff things could be (in some other world) the way the proposition says things actually are (in this world), which would require something along the lines of: a proposition (existing in *w*) is true *of w** iff in *w** things are as the proposition says they are in *w*. At the moment I cannot quite make out whether such an account is feasible.[29]

Finis Excursus.

I attempt to summarize. From within the propositionalist's perspective, the truth of the paradigmatic T-propositions can hardly be questioned. Also, they can be said to be uncontroversial, obvious, and trivial *relative* to this perspective. But their necessary truth can still be questioned, even by propositionalists, on the grounds that many or all propositions are contingent beings. I have tried to sketch a view, the bold Russellian's view, on which all T-propositions can be said to be necessary truths, even though many exist only contingently—but the view seems a bit weird and its defense requires drawing on an unfamiliar distinction of Buridan's which is not easy to handle for a propositionalist and which might, in the end, amount to nothing more

[29] Buridan himself does not have this problem; his '*propositio*' refers to sentence tokens. The problem arises when one tries to transport his proposal into the world of the propositionalist. For a similar objection, and a number of other objections to this "transportation", see Plantinga 1983 and 1985; cf. also the responses in Fine 1985. Note, by the way, that it is difficult to see how a deflationist could avail herself of Buridan's proposal: *truth-of* seems not amenable to deflationary treatment.

than the concession that some T-propositions are not necessarily true after all. On the other hand, we have seen that, even if (many) T-propositions lack the virtue of necessary truth, they might still be regarded as contingent a priori, conceptual, or structural truths—although this idea too is far from unproblematic, it has to contend with the difficulties inherent in the picture of propositions as complex structured wholes.

VI

At times one finds authors making very strong *equivalence* claims that seem to bear on the T-biconditionals. One such claim—in fact one of the earliest I know of—is due to the 13th century logician William of Sherwood: "For it is the same thing to say 'Socrates runs' and 'That Socrates runs is true'."[30] A better known example comes from Frege (1892, 34): "One can, indeed, say: 'The thought that 5 is a prime number is true'. But closer examination shows that nothing more has been said than in the simple sentence '5 is a prime number'." In section 2, I emphasized that one should distinguish between claims of this sort and the T-biconditionals. The former talk *about* the two sides of the T-biconditionals, while the latter do no such thing. Nevertheless, it seems clear that an author who makes such a claim would be prepared to attribute some fairly exalted virtues to the T-biconditionals. The virtue that most immediately comes to mind is one I have not discussed so far: *analyticity*.

On a contemporary understanding of this notion, saying of something that it is analytic amounts roughly to saying that it is true in virtue of its meaning alone. Now, this creates an immediate problem with respect to the T-propositions, for it is doubtful that this notion of analyticity is applicable to propositions at all. Typically, a proposition is said to *be* a meaning; it would then be rather strange to go on and say that it also *has* a meaning. The contemporary notion of analyticity is best reserved

[30] See his *Introductiones in logicam*, p. 33: "Idem enim est dicere 'Socrates currit' et 'Socratem currere verum est'."

for sentences. If one claims the T-biconditionals for propositions to be analytic in the contemporary sense, one would have to have in mind not the T-propositions (for propositions) but the T-sentences (for propositions)—sentences like the one displayed below:

(1) The proposition that snow is white is true iff snow is white

The more traditional Locke-Kant notion of analyticity as *conceptual containment* does seem applicable to propositions ('concept' being conveniently ambivalent between an abstract and a psychological sense). The Locke-Kant notion is characterized in terms of the predicate concept of a proposition being contained in the subject concept, which does not quite apply to conditional propositions, but maybe it could be expanded to something like this (assuming we are prepared to use 'concept' broadly so that it can cover whole propositions): a conditional proposition is analytic iff the consequent propositional concept is contained in the antecedent propositional concept; an *analytic equivalence* would then be a biconditional proposition where the containment is mutual.[31]

Admittedly, this notion of analytic equivalence is rather rough. But it seems serviceable for the purpose at hand. Note first that analyticity is traditionally taken to imply necessary truth. So, if one holds that the T-propositions are analytic but is also committed to a view on which some or all T-propositions come out as contingent truths, one has to admit that they are not analytic after all. Contingent analyticity is not an option on the propositional notion of analyticity. At least, I fail to see how there could be a mutual containment between propositions *x* and *y* without it's being

[31] Boghossian (1997) would, it seems, defend an account of analyticity on which a proposition is analytic iff understanding it is sufficient for being justified in believing it. I would call this a weak (fallible) notion of the a priori. The terminology in this area is very confusing; see David 1997.

necessary that they have the same truth-value.[32] So, is it plausible to claim the T-propositions to be analytic? Is it plausible to say that the T-proposition expressed by T-sentence (1) is an analytic equivalence in the above sense? By my lights the answer is: surely not. While it is plausible to say that the proposition that snow is white is conceptually contained in the proposition that the proposition that snow is white is true (assuming one is prepared to set aside worries about the notion of propositional constitution); it is quite implausible to claim that the proposition that the proposition that snow is white is true is conceptually contained in the proposition that snow is white. It seems to me that one would make such a claim only under the influence of some agenda that exerts theoretical pressure in its direction. Looked at naïvely, the claim appears obviously wrong: the concept of a proposition and the concept of truth are both missing from the propositional concept that snow is white.

Although the propositional notion of analytic equivalence should be distinguished from the sentential one, it is nevertheless natural to tie it to the notion of *sameness of meaning*, or *synonymy* (or maybe better, to tie the latter notions to the former). Let us refer to the sentence to the left of the 'iff' in T-sentence (1) as *Left*, and to the sentence to the right of the 'iff' as *Right*. One claim that William of Sherwood and Frege seem to be making, then, is that Left and Right mean the same thing, that they are synonymous. This can be taken as indirectly attributing the following virtue to T-sentence (1): it's truth is "underwritten" by the synonymy of Left and Right. But is it plausible to say that Left and Right are synonymous. Not very. Though, as is often pointed out, the notion of meaning is in some disarray, the claim that Left and Right are synonymous is highly suspect on ordinary meanings of

[32] I am reverting back to the standard use of 'necessary'—the bold Russellian has had his say. Contingent analyticity *is* an option on the sentential notion of analyticity. Consider 'I am here now'. It does not express a necessary truth; still it's not absurd to follow Kaplan (1977) in taking it to be true in virtue of its meaning—though Descartes would urge Kaplan to get rid of the 'here'. Also, one might plausibly take the T-sentence "The sentence 'Snow is white' is true iff snow is white" to be true in virtue of its meaning without taking this to prejudge the issue whether the T-sentence expresses a necessary truth.

'meaning'. For example, if this paper were ever translated, it would be a minor disaster if the translator rendered all occurrences of 'the proposition that snow is white is true' simply as 'snow is white', or vice versa—and the same goes for the majority of papers on truth, especially for papers that advocate a deflationary account of truth (translation poses a sort of pragmatic paradox for radical deflationists whose very thesis it is that Left and Right simply mean the same). Moreover, it's difficult to see how a sentence that implies the existence of something *x* could be synonymous with one that doesn't. Given that the notion of meaning is in some disarray, an author's claim that Left and Right mean the same seems to tell us considerably more about how the author intends to use the notion of meaning (for some theoretical purpose or other) than it tells us about the T-biconditionals and their virtues.

Assuming that propositions are regarded as the meanings of declarative sentences, another claim William of Sherwood and Frege seem to be making is that Left and Right express the very same proposition. This claim is closely related to the idea that the T-proposition is an analytic equivalence and is about equally implausible. The sentence 'snow is white' means *that snow is white*. Even if the proposition that snow is white is in some sense *the meaning* of the sentence, it is not right to say: "'Snow is white' means (in part) *that that snow is white is a proposition*. I should point out that Frege's official notion of analytic containment is what I would call a "thin", or "logical" notion. He characterizes it as deducibility from general laws of logic and definitions (containment of "the plant in the seed" type rather than "the beams in the house" type).[33] On this notion, mutual containment does not imply the identity of the propositions involved, whereas on a "thick" notion, a notion that involves the picture of propositions having genuine constituents, mutual containment of propositions does imply identity. I have, in effect, already discussed the logical notion: Left and Right are not interdeducible in any ordinary sense of "deducible",

[33] Cf. Frege 1884, §§ 3 and 88. It is difficult to tell whether Frege means this notion to apply to sentences, or propositions, or both.

for deducing Left from Right requires the additional premise that the proposition that snow is white exists.[34] As far as Frege is concerned, this is in any case a mute issue, because he seems prepared to claim that Left and Right do express one and the same proposition.

One might expect, naïvely, that claims to the effect that two expressions mean the same should be symmetrical: if sentence *x* means the same as sentence *y*, then *y* means the same as *x*. However, the quote from Frege indicates—in contrast to the one from William of Sherwood—that he intends his claim to be taken *asymmetrically* ("nothing more has been said"). We are, as it were, supposed to read T-sentence (1) from left to right, rather than from right to left, when we think of it as underwritten by the synonymy of Left and Right—the synonymy claim is to be taken with a reductive twist.[35]

Frege did not quite manage to sustain this view however. At a later time, he considers the sentence 'it is true that sea-water is salty' and says it means the same as 'sea-water is salty'. This, he observes, might give one the idea that 'true' means nothing at all—an idea which he rejects for the following reason. If 'true' had no meaning (sense) at all, then a sentence like 'the proposition that snow is white is

[34] For the logical notion of containment, see the text to note 20. One might object that Left and Right might still be interdeducible given the *definition* of truth. Horwich's account of truth on which the infinite collection of T-proposition counts as an "implicit definition" of truth, each T-proposition being an "axiom" might be regarded as an example (provided one is prepared to suppress worries about deductions from infinite premise sets); cf. Horwich 1989, pp. 17f. and 121. Compare also Sosa's (1993, 188) suggestion that the T-propositions are deducible from the theory of truth given by the following (finite) equivalence principle: "For every proposition *x*, the proposition that *x* is true is necessarily equivalent with *x*". However, the objection seems to get things the wrong way round. The Tarski-inspired idea to select a truth definition (or theory) that implies the T-propositions is itself motivated by the special virtues the T-propositions are perceived to enjoy.

[35] Cf. Alston 1996, pp. 48-50. Although adding sum such reductive twist to equivalence claims associated with the T-sentences is common practice, especially among advocates of strong forms of deflationism, Frege is actually a somewhat odd case. For, at times, he is inclined to read from right to left. At one point he says of the truth predicate "dass es immer mit ausgesagt wird, wenn irgend etwas ausgesagt wird" ("it is always co-asserted, when anything is asserted") and: "Die Form des Behauptungssatzes ist also eigentlich das, womit wir die Wahrheit aussagen, und wir bedürfen dazu des Wortes „wahr" nicht" ("the form of the assertoric sentence is actually that with which we assert truth, and to do this we do not need the word 'true'." (Frege 1897, 140/129; my translations.)

true' would be a meaningful subject-predicate sentence with a meaningless predicate. It is not easy to see how this would be possible. He then draws a somewhat startling conclusion: "All one can say is: the word 'true' has a sense that contributes nothing to the sense of the whole sentence in which it occurs as a predicate" (Frege 1915, 272/251). But this paradoxical pronouncement falls short: it doesn't account for the words 'the proposition that' which also occur in the sentence. What Frege should have said, one might think, was rather that whatever meanings the words 'the proposition that' and 'is true' might have in *other* contexts, in the context 'the proposition that…is true' their meanings cancel each other out (somewhat like the meanings of two 'not's might be said to cancel each other out in a double negation, even though a lonely 'not' does definitely contribute to the meaning of the whole).

I emphasize Frege's paradoxical pronouncement, because its failure to go all the way is symptomatic of a deeper tension. Frege was of course a propositionalist; in fact, he was a Fregean. As such he could not quite get himself to maintain that the words 'the proposition that' have a *null* meaning in the sentence 'the proposition that snow is white is true'. On his own view, the expression 'the proposition that snow is white' is a name functioning as the subject of T-sentence (1) and referring to the proposition *that snow is white*. Frege had to squint very hard to pretend he didn't see that—which he had to if he wanted to maintain that Left and Right mean the same, for the sentence 'snow is white' clearly contains no name (subject) referring to proposition that snow is white: on Frege's view, Left and Right ought not to mean the same. The culprit that created this tangle causing even Frege to squint was a sentence of the form 'it is true that p'. On the one hand, Frege wants to say 'it is true that p' always means the same as 'p'; on the other hand, he wants to say that it also means the same as 'the proposition that p is true'. But being an ardent Fregean, he could not sustain the view that 'p' means the same as 'the proposition that p is true'.

All views that regard the notion of truth as requiring *truth bearers* of some sort (e.g., propositions) will run up against subjectless locutions of the form 'it is true

that p', for such locutions exhibit a prima-facie "bearerless" use of 'true' as part of the sentential operator 'it is true that'. Let us look at an appropriate T-biconditional:

(10) It is true that snow is white iff snow is white

Note first that the T-sentence (10) is ambiguous between the reading 'it is true that (p iff p)' and '(it is true that p) iff p'—the latter is of course the intended reading.[36] Frege and others want to maintain that the T-proposition expressed by (10) is an analytic equivalence, that the proposition expressed by (10)'s Left is the same as the one expressed by its Right, and that Left and Right mean the same. I would still balk at this. It seems to me that analyticity is a virtue too exalted even for (10). All of the following seem to me at least reasonably plausible. The proposition that it is true that snow is white is not conceptually contained in the proposition that snow is white and is not identical with it. A person could understand what Right means and use it properly without understanding what Left means. A person (a child) could understand the proposition expressed by Right without understanding the proposition expressed by Left, i.e., without having a concept of truth. A person could understand 'snow is white iff snow is white' and the proposition expressed by it without understanding T-sentence (10) and the proposition expressed by it. All these claims seem fairly plausible; they create prima-facie problems for the idea that (10) is analytic. However, it also seems to me that attributing analyticity to (10) is rather less implausible than attributing it to (1).

Recall now the other virtues that have been attributed to T-sentence (1) and/or the proposition expressed by it. It is striking that most of them seem to fit (10) rather well—very much better than they fit (1)—and by and large for the same

[36] On strong deflationary views, (10)'s Left means the same as its Right. By this very thesis it would follow that the ambiguity between the two forms is merely syntactical; as far as meaning is concerned, they would amount to the same.

reason: because, on the face of it, Left of (10) does not imply that there is the proposition that snow is white. Even the proposition-skeptic may feel complacent about (10); even she might agree that (10) is true, necessarily true, a priori, uncontroversial, obvious, trivial, and platitudinous. The suspicion arises that all these virtues were originally meant for (10) but then somehow migrated and attached themselves to (1). Consider this well-known passage from Ramsey (1927, 38): "Truth and falsity are ascribed primarily to propositions. The propositions to which they are ascribed may be either explicitly given or described. Suppose first that it is explicitly given; then it is evident that 'It is true that Cæsar was murdered' means no more than that Cæsar was murdered." This strikes me as rather revealing. Having specifically emphasized that truth applies to propositions, Ramsey pulls out (10) instead of (1)—or rather, Left of (10) instead of Left of (1)—to show off *its* virtues. The reason for this probably inadvertent maneuver is clear: it is too uncomfortable to pull out (1), because it is not easily disguised that (1) does not actually have these virtues. Unless one squints hard, the commitment to the existence of propositions carried by Left of (1) and the absence of any such commitment carried by Right of (1) sneaks into the eye.[37]

Let us adapt some terminology from the theory of modality and call the notion expressed by the truth operator ('it is true that') *de dicto* truth, and the one expressed by the truth predicate ('is true') *de re* truth. There are two clean but uncomfortable strategies for handling the intuitive difference between the T-sentences

[37] There are more examples of this maneuver. Early in his book, when he is still concerned with convincing the reader of the virtues of (10) and its kin, Horwich exhibits (1) as evidence—or rather the schema 'It is true that p iff p'—and calls *it* uncontroversial and obvious; cf. Horwich 1998, p. 6. Throughout his book, Soames always mentions 'it is true that p' and 'the proposition that p is true' in one breath treating them interchangeably. As far as I can tell, the only exception is a paragraph in which he specifically emphasizes the virtues and attributes triviality, a priority, and necessity to (10). In this one paragraph, (1) is nowhere to be found; cf. Soames 1999, p. 230.

(10) It is true that snow is white iff snow is white

(1) The proposition that snow is white is true iff snow is white

First, take *de dicto* truth as basic and maintain that (1) is just a notational variant of (10); that is, claim that (1)'s subject-predicate form is not to be taken seriously and that the words 'the proposition that' are just empty verbiage. According to this strategy, *de re* truth reduces to *de dicto* truth, which has the advantage that one can claim all the virtues of (10) for (1) too. However, the strategy has a crippling disadvantage that is well-known and has been much discussed. Taking truth to be *de dicto* truth and nothing more severs the connection between biconditional (1) and other important uses of 'true' in which it appears as a predicate (generalizations like 'Every proposition that is known is true', and "blind" uses like 'The proposition most favored by truth theorists is true'). Such apparent *de re* uses of 'true' are now extremely hard to account for (some would say they cannot be accounted for at all): it appears that there is more to *de re* truth than to *de dicto* truth; the former is more powerful, more informative.[38] Second, take *de re* truth as basic and maintain that *de dicto* truth is trivially convertible into the *de re* form because (10) just *is* (1) in another guise. According to this strategy, the that-clause in (10) already refers to the proposition that snow is white and the operator is just the rearranged truth predicate, so that Left of (10) is already committed to propositions. This has the advantage that it allows one to take the whole notion of truth on board. It has the disadvantage that it is at best seriously debatable, at worst just false, that (1) actually has any of the virtues that (10) intuitively seems to have; moreover, according to the "official" view of this strategy, it has now become equally problematic whether (10) has any of these virtues. There is a third strategy: "fuse" (1) and (10) into one idea X; but pull out the first when you need to show that X's notion of truth is rich enough to handle all uses

[38] And more risky. Note that *de dicto* truth by itself does not give rise to paradox. Since *de re* truth does, this already suggests that there must be something wrong with this reductive strategy.

of 'true', and pull out the second if you need to emphasize X's virtues.

It was Hume, I believe, who pointed out that his predecessors had mentally fused two different principles into one: "Every *effect* has a cause", which has the virtue of being self-evident but the vice of being uninformative; and "Every *event* has a cause", which has the virtue of being informative but the vice of lacking self-evidence. The result of this fusion, "*the* causal principle", somehow managed to come off (for quite a long time) as having both virtues and neither vice—with one of its ingredients being pulled out when self-evidence was called for, the other when information about the world was called for. Something similar, it seems to me, has happened to (10) and (1). Officially they are supposed to express the same proposition. But then, depending on the occasion, the difference between the propositions they appear to express is put to good use.

VII

In discussions about the T-biconditionals for *sentences* (often just called "T-sentences") one finds a relatively sharp divide between two parties. The divide is about the modal status of T-biconditional

(2) The sentence 'Snow is white' is true iff snow is white

and its siblings.[39] One party holds that (2) is contingent because sentences have their meanings contingently: snow might have been white while the sentence 'Snow is white' might have meant that snow is green, and the sentence might have meant what

[39] I have to resort to the neutral/ambivalent "T-biconditional" because (a) it is often not made clear whether "T-sentences" are so-called because they are assumed to be, in my terminology, T-*sentences* for sentences or because they are assumed to be T-*propositions* for sentences, and (b) the issue about the existence of propositions is itself inextricably entwined with discussions about truth. It would, for example, be decidedly strange for a radical sententialist to focus exclusively on (2) but conduct his discussion in terms of the question whether the proposition expressed by sentence (2) is necessary: for a radical sententialist it must be sentences all the way down (or rather up). Of course, a

it means but snow might have had a different color. (Moore's point that Left of (2) is, but Right is not, committed to the existence of a sentence is rarely mentioned; but see Field 1994, p. 250.) The other party holds that (2) is necessary, defending this claim with the thesis that the notion of truth for sentence is not quite what it appears to be on the surface. Some members of this party hold there is an infinite collection of notions of the form truth-in-L, where 'L' stands for languages conceived of as a abstract objects consisting necessarily of all the abstract sentences they actually consist of, all of which have their meanings essentially. Others hold that there is a collection of private notions of truth each one applicable only to the concrete idiolect of a given speaker as the speaker understands it. The larger debate between the two parties is, basically, about how to account for our conflicting intuitions. For there is an undeniable air of necessity surrounding (2), but at the same time it seems that (2) must be contingent because words signify *ad placitum*—by convention.

The contingency-party holds that (2) is contingent and that the intuition of necessity it elicits is due to an illusion generated by our habit to take for granted that the words we see and hear have their ordinary meanings. This automatic presupposition tempts us to think, semi-consciously: "(*Assuming* 'Snow is white' has its ordinary meaning): it's necessary that 'Snow is white' is true iff snow is white". But a contingent background assumption cannot *make* a contingent claim come out necessary. According to the contingency-party, the illusion that (2) is necessary is based on confusing the instances of (11), which are false, with the instances of (12), which are true ('~' is short for 'necessarily'):

(11) $\forall x$: x is a sentence that means only that p $\rightarrow$ ~(x is true iff p);

(12) $\forall x$: ~(x is a sentence that means only that p $\rightarrow$ x is true iff p).

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propositionalist will think this hopelessly quixotic.

The necessity-party is then seen as stubbornly insisting on holding on to (11), which forces it to come up with elaborately invented notions of truth needed to explain away the apparent falsehood of (11)'s instances.[40]

The situation with respect to

(1) The proposition that snow is white is true iff snow is white

appears to be in some ways analogous to the situation with respect to (2) as described by the contingency-party. Of course, there is an important disanalogy. On almost all accounts of propositions, no problems can arise for (1) from the contingency of *content*. Propositions have their contents essentially; or rather, they have their truth-conditions essentially—after all, propositions are supposed to *be* contents, which makes the idea that they *have* contents borderline acceptable at best. The analogy holds when it comes to epistemic issues concerning the existence of propositions. I have pointed out earlier that T-biconditional (1) might be said to be obvious (uncontroversial, trivial, platitudinous) *relative* to the background assumptions of the propositionalists which, to them, makes it appear absolutely obvious. This suggest that the conditional

(13) $\forall x$: x = the proposition that snow is white $\rightarrow$ x is true iff snow is white.

[40] Interestingly, Tarski (1935, 167) may be a case in point: "We shall always ascribe quite concrete…meanings to the signs which occur in the languages we shall consider." Assigning meanings to signs, one might point out, will make them have those meanings, but not essentially. Yet, Tarski thought that an adequate *definition* of truth should have the T-sentences as *consequences*, which would seem to imply that they must be necessary (unless the "definition" is merely contingently true or inconsistent): Did he confuse (11) with (12)? Crispin Wright (1992, 25) seems to succumb to this confusion when he attempts to derive "'p' is true iff 'p' corresponds to the facts", which is necessary, with the help of the premise "'p' says that p", which is contingent. I should point out that, according to the contingency-party, the illusion of necessity is abetted by the fact that sentence (2) may well be analytic, even though it expresses a contingent truth. Needless to say, the necessity-party gives a different account of itself. According to this party, (2) is necessary and the intuition that it is contingent is an illusion generated by the fact that we could have spoken a different

might plausibly be said to be absolutely obvious (uncontroversial, trivial, platitudinous). I am not sure how happy champions of the epistemic virtues of (1) would be about the suggestion to trade it for (13). Aesthetic considerations might be involved here: (13) is simply not as neat as (1).[41]

As long as we are concerned only with T-biconditional (1) and conditional (13), the suggestion to trade (1) for (13) also appears to help with modal problems concerning the existence of propositions. Advocates of views according to which some or all propositions exist only contingently might feel happy to announce that (13) is nevertheless necessarily true. Problems arise, however, when we focus explicitly on the proposition expressed by (13). Assume, again, that the proposition that snow is white is a contingent being whose existence depends on the existence of snow. On the popular picture of propositions as complex wholes, the proposition expressed by (13) has the proposition *that snow is white* as one of its constituents. If that proposition depends for its existence on the existence of snow, then the proposition expressed by (13) is itself a contingent being that does not exist in worlds without snow. It is then hard to see how it could be a necessary truth. Back to the drawing board?[42]

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language than the one we actually speak. For much more on this debate, see the references in note 3.

[41] I am assuming that "*a* exists" can be rendered as: "$\exists x$: $x = a$". Adapting a suggestion from Field (1994, 250), who is concerned with (2) rather than (1), one could say that a claim *x* is obviously equivalent to a claim *y relative* to a claim *z* iff the conjunction of *z* and *x* is obviously equivalent to the conjunction of *z* and *y*. The resulting higher-level claim about the obvious equivalence of two conjunctions can be taken to underwrite a corresponding object-level claim. This results in the idea to trade (1) not for (13) but for: "The proposition that snow is white exists and is true iff the proposition that snow is white exists and snow is white"—which might then be claimed to be absolutely obvious.

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