Penultimate draft—please cite/quote from the published version.

Content Externalism and Quine's Criterion are Incompatible

T. Parent (Virginia Tech)
parentt@vt.edu

At minimum, externalism says that the content of an utterance or thought about a kind is partly determined by the kind as it exists in the subject's environment (Putnam 1973, 1975; McGinn 1977; Stich 1978; Burge 1979, 1982, 1986).[1] In this paper, we shall examine the consequences of this for *ontological commitment*. The paper describes a problem case suggesting that externalism is incompatible with two standard assumptions about ontological commitment, labeled "Sufficiency" and "Quine's Criterion," respectively. As a first pass, these can be put as follows:

(SUF) An (intensionally individuated) belief that is expressed as "*x* exists" is sufficient for an ontological commitment to *x*.

(QC) A theory is ontologically committed to "all and only the objects over which the bound variables…have to be construed as ranging in order that the statements affirmed in the theory be true." (Quine 1951, p. 11)

The first just says that, if I assert something like "Obama exists," and thereby express a belief that Obama exists, this suffices for an ontological commitment to Obama. (Linguistic expression is not necessary for the commitment, however.) Whereas, the second is Quine's familiar idea that, roughly, ontological commitments are identifiable by what lies in the range of one's quantifier. But several clarifications of (SUF) and (QC) are in order; this will be the business of section 1. Even so, the two can seem so natural that if externalism conflicts with them, that may seem like trouble for the view. (Indeed, once refined, (SUF) is fairly uncontroversial.) But for the

record, I myself do not regard externalism as under threat. Besides, though a typical sort of externalism is sufficient for the conflict, I do not believe it is necessary. The root of the problem, I suspect, lies with standard assumptions about intensional belief-ascriptions. However, the aim here is just to bring out the incompatibility per se; no lessons will be drawn from the conflict.

Some may find it unsurprising if Quine's criterion is incompatible with content externalism. For Quine (1948) argues his criterion by means of a *descriptivist* semantics for names (or at least, for empty names like 'Pegasus'). On such a view, a name is equivalent to a conjunction of descriptors for the referent (or would-be referent, in a case like 'Pegasus'). And in brief, it is because Quine interprets such names descriptively that he thinks ontological commitments are incurred via bound variables. Yet descriptivism is often seen as in opposition to externalism—so a conflict between externalism and Quine's criterion may seem banal.

I cannot enter into a prolonged discussion of the issue here. Let me just observe, first, that there is a growing awareness that externalist descriptivism is a coherent view, where the contents of the describing predicates are individuated widely. (See Lepore & Loewer 1986, Devitt & Sterenly 1987/1999, Taylor 1989, Parent 2015.) Second, the fact is that philosophers commonly presume things like (SUF) and (QC) without insisting on descriptivism (e.g., Sider 2012).[2] They seem within their rights, moreover, since (SUF) and (QC) do not imply descriptivism. Quine's *argument* for (QC) may imply descriptivism; hence, some neo-Quineans may need to argue (QC) on alternate grounds.[3] Regardless, our concern is only whether it is *possible* for (QC) to be true, given (SUF) and externalism. There is hence no need to establish that (QC) is *actually* true, and we can therefore bracket Quine's descriptivist argument in what follows. My claim, nonetheless, is that (QC) remains incompatible with (SUF) and externalism.

1. Preliminaries on Ontological Commitment

Let us first explicate (SUF) and (QC) in further detail. One point is that, although (QC) is directly quoted from Quine, (QC) itself is neutral on whether the English 'exist' is a quantifier in logical form. Quine (1948, 1960, etc.) of course had his own preference here, yet (QC) per se says nothing on the matter. Indeed, whether 'exist' is a quantifier or a predicate does not affect the ontological commitments incurred via (SUF) and (QC). This can be seen in considering the candidate forms of the assertion 'Obama exists':

(i) $(\exists x)\ x = \text{Obama}$

(ii) $(\exists x)\ (x = \text{Obama} \ \&\ \text{Exist}(x))$

Absent any special stipulations, the variables' range in (i) and (ii) will be the same when the statements are true. So by (QC), each pair incurs the same ontological commitments.[4]

This assumes something that shall be assumed throughout. Namely, Quine's criterion fixes ontological commitments in a model where the language has its *standard* interpretation. This assumption is needed since, as Putnam is fond of pointing out, there are numerous models for a theory if nonstandard interpretations are allowed (Putnam 1977, 1980, 1981). So the restriction helps secure a unique ontology as the person's ontology. This will be important later.

Note that I often speak of the ontological commitments of a person rather than of a theory. Yet this should be harmless, assuming the ontological commitments of a person are those of the theory she believes. But there is a complication. The theories that concerned Quine are extensional, whereas our concern will be with intensionally individuated beliefs. These beliefs are such that, when ascribed by a true sentence of the form "S believes that *x* is F," the existence of "*x*" does not follow.[5] In focusing on intensionally individuated beliefs (hereafter, just "beliefs"), I do not mean to suggest that the extensional theories are of no interest. But the

ontological commitments which concern us are often intensional. As many have observed, it is impossible to be ontologically committed *in res* to phlogiston.[6] A non-extensional sense is thus the primary sense in which scientists were once committed to phlogiston.

Yet in this, a confirmed extensionalist like Quine need not despair. Jubien (1972) argues, for instance, that the variables in phlogiston-theory can range over the *word* 'phlogiston'—whence the word functions as a "proxy" for a nonexistent object. Certain theories from the 1700s can thus bear an extensional relation R to the word 'phlogiston' to indicate ontological commitment to phlogiston. N.B., the idea is not that 'phlogiston' is assigned as the referent of 'phlogiston'. Rather, it is acting as a *proxy* for a referent. 'Phlogiston' remains referentially empty; the proxy just helps fix the semantics of the term, in lieu of a referent. In this, the proxy strategy is basically a version of modal ersatzism, a view which rejects nonactual objects, yet posits actual abstract objects as "stand ins" for nonactual possibilia, such as maximally consistent sets, abstract property bundles, abstract combinatorial constructs, or even just irreducible sui generis abstracta (Adams 1974; Plantinga 1976; Lycan 1979; Armstrong 1989). Or per Jubien, word *types* can function as the actual abstract surrogates.

Such ersatz views are not uncontroversial. However, I submit that the issues in what follows are not owed to ersatzism. Indeed, other actualist views can be deployed instead. Thus, a modal fictionalist might say that 'phlogiston' refers to an object in some (non-actual) world. But facts about non-actual worlds would be fixed merely by some actual modal fiction.[7] Still, if she asserts "Phlogiston exists," her quantifier can be seen as ranging over a non-actual object, where facts about such an object are determined by an actual fiction. For simplicity of exposition, however, I shall assume that the Quinean criterion assumes some brand of ersatzism. Yet I

believe that this choice is somewhat arbitrary and my remarks would remain applicable given other choices. Again, I think the issues below do not stem from worries about ersatzism.

Allowing ersatzism, we can thus speak of *intensional* ontological commitment, or "i-commitment" without undermining (QC). Even so, i-commitment can remain unclear in a further respect. To bring this out, consider Oscar, an early chemist in 1750. Suppose that he lacks an i-commitment to H_2O, even though he is so committed to water. (To simplify things, suppose he was already i-committed to hydrogen and to oxygen.) Imagine that one day Oscar's pioneering work in chemistry causes a new belief that he expresses as "water = H_2O." And from this, he inferentially acquires a further belief he expresses as "H_2O exists." Now in saying such things, has Oscar gained a new i-commitment?

Clearly, he has not increased his extensional ontological commitments, given his long-time commitment to water. But it seems he has increased his i-commitments. After all, he now has a belief expressible by 'H_2O exists', and this is a belief he did not have before. Still, talk of a "new" ontological commitment has the potential to mislead. For the cardinality of Oscar's ontology has not changed. After all, the existence of H_2O derives from his realization that water is *numerically the same* as H_2O. Because of that, Oscar has kept constant the number of entities in his ontology—it's just that he now knows the essence of one such entity.

True, there may be a sense in which something has been "added" to Oscar's ontology. For it now contains a novel (intensionally individuated) kind, H_2O. This can be allowed, however, as long as we are clear that to "add" H_2O in this sense would not increase the number of things in the range of Oscar's variables. No such increase occurs if H_2O is *identified* with something already in there.[8]

To keep clear on such matters, let us say that although Oscar has increased his i-commitments, he has not increased the size of *his ontology*. With the latter expression, the distinctive feature is the possessive case. It reflects that talk about Oscar's ontology is not necessarily talk about *ontology*, that is, about what really exists. It instead concerns the entities that Oscar believes exist—which according to (QC), are the entities in the range of his variables, in a model where all his beliefs are true.

Thus, Oscar's ontology is comprised of the things he is i-committed to, yet his i-commitments do not correspond one-one to those objects. He might have an i-commitment to water and to H_2O, yet the two i-commitments put only one object in his ontology, thanks to his belief in their numerical sameness. Even so, there is a systematic connection between his i-commitments and his ontology, namely, if he is i-committed to "*x*," then "*x*" is in his ontology.[9] Still, the present point is that a new i-commitment to *y* does not always add a further entity to Oscar's ontology. That occurs if Oscar already has *x* in his ontology, and the commitment to *y* arrives only via his new belief that $x = y$.

In light of these observations, we can now express more carefully the earlier assumptions about ontological commitment as follows:

(SUF*) A belief expressed as "*x* exists" is sufficient for an intensional ontological commitment or *i-commitment* to "*x*," i.e., it suffices to put "*x*" into the person's ontology.[10]

(QC*) A *person's ontology* consists of all and only the objects (or ersatze for objects) which the bound variables must be construed as ranging over, in order to make the theory that expresses her beliefs true.

I would reiterate that such things seem fairly plausible; indeed, (SUF*) can be seen as more or less stipulative for the neologism 'i-commitment'.[11] Granted, (QC*) departs from the letter of Quine, since ontological commitments are here individuated intensionally. (For this and other reasons, my references to "Quine's criterion" should not be seen as exegetically serious.) But again, this was to allow for mistaken ontic commitments, such as scientists' past commitment to phlogiston, and such a thing must be allowed for. Yet to repeat, I assume a Quinean can make sense of these mistakes, via some actualist modal metaphysics.

2. Externalism about Ontological Commitment

The main concern, then, is that externalism seems to conflict with (SUF*) and (QC*), as illustrated by some novel Twin Earth cases. Now it turns out that water is an unfortunate example—but regrettably, we are stuck with it. We need to connect to the literature at various points, and the scholarship is less sloppy if we keep the example constant. Yet at least five points of clarification are needed. First, we are to ignore that Oscar is mostly water (and hence that Twin Oscar could not really be molecule-for-molecule duplicate). We can ignore this because a different example might have been used (gold, aluminum, etc.) without encountering this issue. Second, the individuation of natural kinds is not cut and dried (Dupré 1981). But here too, we could have used a different example, for example, Pavarotti versus Twin Pavarotti. (Yet since essences will be important below, a Pavarotti-essence and a Twin Pavarotti-essence would also need to be acknowledged.) Third 'water' in English has a use where it denotes water in liquid form specifically (Martinich & Stroll 2007, ch. 5). Worse, 'water' normally denotes mixtures with H_2O (Malt 1994). So we will just have to stipulate that the term 'water' is used to refer to pure water in solid, liquid, or gaseous form (or any transitional phase between these). As a fourth

matter, Martinich & Stroll (op. cit.) observe that even 'pure water' can denote things other than plain H_2O, e.g, samples that contain naturally occurring isomers. Stipulation again to the rescue. The isomers are to be left aside; let 'pure water' denote a stuff whose molecular constituents are all type identical. Finally, Martinich & Stroll note that the 'is' in 'water is H_2O' is plausibly the 'is' of composition, rather than the 'is' of identity. However, we can finesse this if we assume that 'H_2O' is shorthand for "the stuff composed of H_2O." Putting this all together, 'water = H_2O' in Oscar's language is interpreted as the claim: *pure, isomer-free water in any of its phases = the stuff composed of H_2O*.

Since Twin Earth stories are familiar, I shall be brief (but all the usual details apply, e.g., Oscar is an adult, competent English speaker). In our tale, Oscar lives before the advent of chemistry. One day in an ontological mood, he sincerely asserts "water exists" and thus expresses an i-commitment to water. (SUF*) then indicates Oscar has water in his ontology.

Compare this now with Twin Earth, where all the water is substituted with XYZ, a.k.a. "2water," a superficially indiscernible, yet chemically distinct compound.[12] The only other difference (which follows on the first) is that Oscar's molecule-for-molecule duplicate uses the term 'water' in relation to XYZ only. The externalist intuition is then that Twin Oscar's utterance of 'water exists' refers to XYZ and expresses a belief about 2water. Therefore, given (SUF*), Twin Oscar has 2water in his ontology.

The result is that, even though the twins' chemical ignorance and internal states remain constant, Twin Oscar's ontology is different from Oscar's ontology. So what determines your ontology "ain't in the head," at least not entirely. Facts about the environment partly determine what your ontology contains.

This will likely upset the Cartesian; she likely holds that a person wholly legislates what is in her ontology, regardless of what is out there in the environment. Accordingly, she would judge the twins to have the same ontology. But the contrary view is what one would expect from us externalists. After all, externalism individuates beliefs in part by the environment—and that goes for beliefs about what exists. Accordingly, Oscar and Twin Oscar have different ontologies.

Can we live this externalist result? Let us reconsider Oscar. Suppose that, through no fault of his own, Oscar's inquiry into the nature of water leads him to believe that that water = XYZ and thus that XYZ exists. Clearly, Oscar has been led astray somewhere, but the details on this will not be important. (However, I will assume Oscar is correct to believe that XYZ exists, since we are supposing it exists on the distant planet of Twin Earth. But if it is bothersome that XYZ is actually fictional, use D_2O instead in the example.) Now here too, (QC*) suggests that Oscar has only *one* watery stuff in his ontology, even though he has misidentified its essence. For (QC*) determines his ontology by his believing that water exists, that XYZ exists, and that water = XYZ. Yet assuming externalism and (SUF*), it seems there will be two objects in his ontology. For according to the externalist, the belief in water will represent water *as it actually is* in his environment. And there, it is not identical to XYZ. So given (SUF*) and externalism, his further belief that XYZ exists seems to put an *additional* watery kind into his ontology.

This may raise a number of questions—but the one I wish to pursue is whether Oscar's ontology has increased in size. Consider that since infancy, Oscar has held the belief that water exists. And the externalist individuates this as a belief about water specifically (even though Oscar had no opinion about its chemistry). However, Oscar now has the belief that XYZ exists. Per externalism, this is individuated as a belief about a different substance, XYZ. But if that is correct, then Twin Oscar's ontology has indeed grown in size. More precisely, since his

existential beliefs represent what are actually different kinds, externalism and (SUF*) will put two watery kinds in his ontology.

Yet Oscar came to believe that XYZ exists from his conclusion that water = XYZ. So according to (QC*), the size of his ontology is unchanged, despite the new i-commitment to XYZ. After all, given the numerical identity he subscribes to, (QC*) puts only one watery stuff in Twin Oscar's ontology.[13] But that is not the verdict suggested by externalism and (SUF*). This means that, if we accept externalism, (SUF*), and (QC*) all together, we can derive contrary claims about the size of Oscar's ontology. Thus the externalist view is apparently incompatible with such assumptions about ontological commitment.

It is key here that, according to (QC*), ontological commitments are not determined with respect to the actual world as such. Rather, the objects in Oscar's ontology are those in the model in which Oscar's theory is true. Again for Quine, the ontology of a theory consists in "the objects over which the bound variables …have to be construed as ranging in order that the statements affirmed in the theory be true" (op. cit.). This model-relativity in Quine's criterion is often not noted explicitly—though in its application, philosophers seem guided by it. For it is standard to assume that ontological commitments are not restricted to whatever objects are available in the actual world. Ontological commitments are thus being determined by the objects of some other model—plausibly, the model where a person's theory is true.

In summary, the incompatibility argument can be put as follows:

(1) Oscar's beliefs, expressed by 'water exists' and 'XYZ exists' are sufficient for two watery kinds in Oscar's ontology. [from externalism, (SUF*)]

(2) Oscar's beliefs, expressed by 'water exists', 'XYZ exists' and 'water = XYZ', are sufficient for only one watery kind in Oscar's ontology. [from (QC*)]

(3) So, Oscar's beliefs, expressed by 'water exists', 'XYZ exists' and 'water = XYZ', are and are not sufficient for two watery kinds in Oscar's ontology. [from (1), (2)]

If (3) is seen as absurd, then externalism seems incompatible with (SUF*) and (QC*).

In connection with this, consider that externalists standardly distinguish Oscar's *concept* of water from his *conception* of water. Typically, his concept of water is seen as representing water, even if he has a gappy or misleading conception of the stuff. But basically, when (QC*) is applied to Oscar, the concept-conception distinction is eroded. For (QC*) interprets his water-concept by how he conceives of water, that is, according to the model in which his theory of water is true. Thus, in the application of (QC*), the interpretation of Oscar's water-concept is determined by how his theory describes the stuff, *even though it misrepresents its essence.* Oscar's water-concept thus acquires a *contra-essentialist* interpretation in the relevant model, and this seems to be the root of the incompatibility with the standard sort of externalism.

3. Objections and Replies

There are at least two kinds of reply to the preceding. One is that the externalist can accommodate (SUF*) and (QC*), contra appearances. These are the "compatibilist" replies. The second holds that, if the externalist has a problem, it is a problem that afflicts any semantic view. Call these the "everybody's problem" replies. Naturally, an externalist has a third option, namely, to reject (SUF*) or (QC*). Perhaps that is the best response from the externalist—but in this, she (more or less) concedes the incompatibility, and that is all I aim for here.

3.1 Compatibilism

One compatibilist reply is that the argument equivocates. The thought here is that the externalist individuates Oscar's existential beliefs while assuming that Oscar is on Earth. Yet (QC*)

determines his ontology in relation to a set of objects non-identical to the set of Earthian objects. (XYZ, after all, is not on Earth.) Accordingly, the externalist might say that (2) is true of Oscar's ontology when he is situated in some counterfactual environment. And relative to that environment, Oscar's existential beliefs and his ontology may well concern different objects. But that has no bearing for Oscar in his actual environment.

But on the contrary, (QC*) is supposed to fix Oscar's ontology while in his actual environment. It is not just indicating what his ontology would be in some metaphysically impossible environment (though it might do that as well, per accidens).

A second compatibilist reply is to embrace (3) instead of brand it as absurd. This would mean Oscar has a pair of watery stuffs in his ontology, albeit a pair whose members are, *per impossible*, numerically identical. Now one might imagine cases where this is apt. But in the case envisioned, we assume Oscar is focused on the question "what is the essence of water?" and is fully cognizant that the question concerns a single watery kind. Suppose further he alights on 'water = XYZ' as an answer to *that* question. Then, at least in some cases, it seems he ends up committed to no more than one watery kind. He has made mistake, no doubt, but the mistake would concern the essence of water, not the number of watery kinds around. Perhaps the example could be tweaked to make all this less clear, but that would be to consider a different example than the one intended.[14]

An alternate compatibilist reply is to deny (2) on related grounds. Given that Oscar believes water = XYZ, the thought is that (QC*) implies nothing about Oscar's ontology. For (QC*) can determine ontological commitments only via a model where all his beliefs are true. Yet since Oscar believes water = XYZ, there is no such model, for it is impossible to make all his beliefs true. So in his case, (QC*) cannot yield an answer to what his ontology contains.

Charitably, however, (QC*) has all logically possible models at its disposal, and not just the metaphysically possible ones. Otherwise, (QC*) has the quixotic result that people cannot ontologically commit to metaphysical impossibilities. However, especially with aposteriori impossibilities, this seems quite within our reach (to our misfortune). So if (QC*) is to be plausible, it must make it possible for a person's ontology to contain something impossible. Accordingly, (QC*) is best construed so that a person's ontology is sometimes fixed by a model that is merely logically possible.

Given that, (QC*) indeed yields an answer to what Oscar's ontology contains. Since Oscar identifies water and XYZ, (QC*) says his ontology contains just one watery kind. This means Oscar is (unwittingly) committed to a metaphysically impossible stuff. But for one who accepts (QC*), such misfortune is the human condition.

A further compatibilist reply is to deny (1). Why exactly can't the externalist go along with what (2) says instead? True, she initially individuates Oscar's existential beliefs in relation to two substances instead of one. But once the belief that water = XYZ is introduced, is the externalist still wedded to this individuation?

The compatibilist is thus suggesting that externalism is not committed to wide individuations in Oscar's case. Indeed, Burge (1979, p. 90-91) granted that the externalist thought experiments do not apply in some cases (even though he thinks they apply in the normal cases). For instance, if someone utters 'Orangutans are a kind of fruit drink', this is probably too bizarre a case to say what belief is expressed. (Does the speaker really think that *orangutans* are potable?) Be that as it may, Oscar's error does not seem so severe. For it is understandable how he might mistake water and XYZ for a single kind; Oscar lacks a well-founded chemical theory, and the two substances are twins after all. That hardly can be said of orangutans and fruit drinks.

Nevertheless, since Oscar misapprehends the essence of water, his mistake may be severe enough to warrant an exemption. However, Burge (1986) is quite clear that wide individuation holds even when the subject has a thoroughly mistaken theory of a kind. Here, Burge imagines Adam as believing that sofas are a kind of religious artifact, and are not meant to be sat on. (Adam believes, in fact, that these objects would break under the weight of a person.) On the other hand, Twin Adam lives on a planet where 'sofa' denotes objects which are superficially indiscernible from sofas, yet are indeed religious artifacts (and would break if sat on). Burge's verdict is that Twin Adam's beliefs are not about sofas, even though Adam's beliefs are. This is so, despite the sameness of internal states, and despite the fact that Adam has a radically mistaken theory of what sofas are.

But in fact, it is precisely because Adam is mistaken about *sofas* that Burge construes his beliefs as representing them. Burge is clear, moreover, that such points can be extended to radically mistaken theories about natural kinds as well (ibid., p. 709). So if we take Burge's cue, externalism naturally leads to Oscar having existential beliefs about two watery substances in the case, despite his mistaken theory of water. (That seems necessary to regard the theory as mistaken about *water.*) Yet as we have seen, individuating his belief this way leads to an incompatibility with (SUF*) and (QC*).

A final attempt to reject (1) is as follows. Perhaps an ersatz object could play the role of a nonexistent (impossible) watery kind in Oscar's environment, per our earlier remarks. A compatibilist then might determine Oscar's ontology via a model where 'water' and 'XYZ' are mapped to this object. The surrogate would then determine the truth of Oscar's assertions of 'water exists', 'XYZ exists', and 'water = XYZ' in this model, without recourse to impossible

objects. Thus, in line with (QC*), the proxy would allow Oscar's ontology to contain a single watery kind.

However, it was noted earlier that (SUF*) and (QC*) determines a person's ontology in a model where the language has its *standard* interpretation. Again, if nonstandard interpretations are acknowledged, then these principles fail to determine a unique ontology. But when the compatibilist recruits an ersatz object in Oscar's case, a nonstandard interpretation seems to be the result. Yet this is not because the ersatz object becomes the referent for 'water'. (It is just meant to be a surrogate for a referent.) Rather, it is because the strategy indicates that 'water' here is being treated as an *empty* term, since we are using a substitute to fix its semantics in lieu of a referent. But on the standard interpretation, 'water' of course is not empty.[15]

This bears on a related kind of compatibilist as well. She invokes no ersatz object; rather, she interprets the terms 'water' and 'XYZ' as denoting the same watery kind. Thus, Oscar's utterances of 'water exists', 'XYZ exists', and 'water = XYZ' would all be true in a model of Earthian objects, owing to a single kind. Yet of course, the only Earthian watery kind is water. Hence this compatibilist effectively re-interprets Oscar's term 'XYZ' so that it denotes water. But if so, it is unclear how the compatibilist determines that *XYZ* is in his ontology. Besides, it would utilize a nonstandard interpretation of the term, contra the earlier provisos.[16]

3.2 Everybody's Problem

However, succumbing to nonstandard interpretations may not be a uniquely externalist predicament. No matter who you are, if 'water = XYZ' is to be evaluated as true in a model, then the terms flanking '=' must co-refer. Yet standardly they do not co-refer. So if (QC*) is to be respected in Oscar's case, a nonstandard interpretation seems unavoidable. If so, then the issue here is not unique to externalism.

At the outset, it was allowed that a standard externalism may be unnecessary for the problems discussed here. But it does not follow that the issues arise for *everyone*. In fact (QC*) by itself (on its non-quixotic reading) is free of such conflicts. For (QC*) makes use of models that are merely logically possible, models that contain metaphysically impossible objects. Consequently, in some such models, 'water' and 'XYZ' co-refer *and* have their standard interpretation. For in these models, it remains that 'water' denotes water and 'XYZ' denotes XYZ. We just need the model to contain the *metaphysically impossible watery stuff* which is both water and XYZ. I mention this not because I aim to defend all this. Rather, my point is just that the externalist's problem is not *everyone's* problem. (That is so, even granting that the problem is not unique to the externalist). Again, one who accepts (QC*) on its non-quixotic reading does not necessarily face the conflict.

Still, it is easy to get confused once impossibilia are in play. How could 'water' denote a metaphysically impossible object on its *standard* interpretation? Answer: that is what happens in some impossible models. For in some such models, the standard referent of 'water' is *also* XYZ, thus making water an impossible object in this model. Nevertheless, 'water' still has its standard referent in the model. What else would 'water' standardly denote in such model, if not water?

Granted, something nonstandard is afoot, since 'water' also denotes XYZ in the model. Yet the only reason it does so is because, in the model, XYZ is numerically the same as water, that is, the same thing as the standard referent (per impossibile, of course!). In contrast, when the compatibilist used a proxy to determine Oscar's ontology, she ended up interpreting 'water' as an empty term—as a term which does not denote anything, much less water. Her extensionalism demanded this, in lieu of invoking an impossible object as a referent. But since 'water' fails to denote water in her model, it is in that sense that she succumbed to a nonstandard interpretation.

To recap, the problem is that externalism and (SUF*) puts more objects in Oscar's ontology than does (QC*). For the externalist individuates Oscar's existential beliefs/meanings partly by the objects themselves, even if he misapprehends the essence of those objects. So in particular, although Oscar conceives water as being identical to XYZ, externalism apparently interprets his assertions of 'water exists' and 'XYZ exists' as expressing beliefs about different kinds. Hence, externalism and (SUF*) suggest that Oscar has two watery stuffs in his ontology—and that is incompatible with (QC*). What we have just seen, moreover, is that this is not everyone's problem, if (QC*) is accepted on its non-quixotic interpretation.

However, a different "everybody's problem" objection is that this all just concerns the usual difficulties with intensional contexts and reference to impossibilia. (I shall assume here that the reader is familiar with such difficulties, but for a proper introduction, see the relevant chapters of Lycan's excellent 2008.) But in fact, the problem presented here is different. For the basic issue is that the externalist puts *too many* objects into Oscar's ontology, at least by Quinean standards. But with impossibilia, the usual problem is that there are *too few* objects—namely, *zero*—to explain the truth of 'Some round squares are round' or 'Bertie is a barber' (where 'Bertie' names Russell's barber who shaves exactly the non-self-shavers). Indeed, even in a Lewisian pluriverse, no objects are suited for the job.

The issue also differs from standard problems about the intensionality of belief ascriptions, even regarding beliefs about impossibilia. Consider the truth of 'Elle believes that Bertie is a barber'. It does not follow that there exists an *x* such that *x* satisfies the formula 'Elle believes *x* is a barber'—and the usual puzzle is to account for that. (The observation is that "existential generalization fails in the scope of a propositional-attitude verb," and the aim is to explain why that is so.) But again, this puzzle arises from there being *too few* objects—namely,

zero—to secure the truth of the existential claim. In contrast, the externalist's problem is that by Quinean standards, she cites *too many* objects in interpreting Oscar's existential beliefs.

Just to round things out, note that the issue also does not reduce to the usual issue about substituting co-referring terms. Suppose that Bertie's street name is 'Möbius'. Then, it introduces no further impossibility if 'Bertie's mother believes Bertie is a barber' is true, yet 'Bertie's mother believes Möbius is a barber' is false. The substitutivity problem is then to explain why this is so, given that 'Bertie = Möbius' is true (i.e., assuming it is true only[17]).

This way of posing the substitutivity problem is a bit unusual, since terms for impossibilia are not typically used in the examples. Regardless, such problems are indeed distinct from the externalist's trouble with Quine's criterion. After all, it is assumed that 'Bertie' and 'Möbius' co-refer, and the substitutivity puzzle arises in light of that fact. But with the externalist, the conflict with Quine arises partly because 'water' and 'XYZ' do *not* co-refer. And externalists typically insist that the lack of co-reference means that Oscar's thought and talk represents two distinct kinds. But in this instance, it seems to indicate that Oscar will have two watery kinds in his ontology instead of one, contra what (QC*) suggests.

4. Closing Remarks

No lessons were to be drawn from the putative incompatibility; nevertheless, a few words are in order about what sorts of lessons definitely do *not* follow.

Suppose that the externalist attributions of ontological commitments are correct, and (QC*) is not. Then, one might be tempted to raise a problem about Oscar knowing what is in his ontology. The problem would be analogous to the slow switching problem in the externalism/self-knowledge debate (see, e.g., Burge 1988). One might imagine Oscar being

unwittingly slow switched to Twin Earth, where he remains disposed to assert 'water exists'. Then, it seems he unwittingly becomes committed to XYZ. So he would not know apriori what is in his ontology. Be that as it may, this result might be less bothersome than the analogous claim in the self-knowledge debate. Further, slow switch arguments can be resisted in the self-knowledge debate, and analogous tactics can be applied here as well (see Parent 2013).

Also, as far as I can tell, no special lessons involving Dry Earth follow from the present considerations (cf. Burge 1982, Boghossian 1997). If Dry Oscar mistakenly thinks that dry water exists, and that dry water = H_2O, he has a mistaken i-commitment, besides a mistaken identification. The mistaken i-commitment is a difference with how we understood Oscar's case, and an externalist might require more from the ersatzer strategy in order to make sense of this. But such issues about nonexistent objects are fairly general, and do not seem any more acute for the externalist in this case. And beyond that, the Dry Earth case does not seem interestingly different from Oscar thinking that water exists and that water = XYZ.

[5919 words]

Acknowledgments

My thanks to Derek Ball, David Chalmers, Jonathan Dixon, Jessie McCormack, William Lycan, and two anonymous referees, for comments on earlier drafts of this paper.

Notes

[1] N.B., I do not assume that externalism entails a causal theory of content or reference. After all, even a Sellarsian inferentialist is an "externalist" if language-entry and -exit moves are individuated widely.

[2] Sider on ontological commitment: "as a general epistemology of metaphysics I prefer the vague, vaguely Quinean, thought that metaphysics is continuous with science…Quine's advice for forming *ontological* beliefs is familiar: believe the ontology of your best theory...We should believe generally what good theories say; so if a good theory

makes an ontological claim, we should believe it" (2012, p. 12). Sider also adopts Lewis' (1984) semantic doctrine of "reference magnatism" which Sider sees as an "externalist" departure from a pure descriptivism (cf. p. 27).

[3] I take it there are such grounds. For instance, a direct reference theorist might prefer Quine's criterion over a name-based criterion, since one can ontologically commit to objects that have no names.

[4] This should not suggest that the quantifier- vs. predicate-view makes no difference to ontological commitment whatsoever. E.g., if 'exist' is always a predicate in logical form, then translating (i) *back* into English should not have the English speaker committed to Obama's existence. Still, my point is (SUF) and (QC) allow either way of translating 'exist' *into* logical form, without affecting the ontological commitments incurred via English.

[5] Intensionally individuated beliefs may be rejected by some Millians. I do not believe this is tenable; however, I am unfortunately unable to pursue the arguments at this time.

[6] This assumes 'ontological commitment' concerns only what is actual, contra Meinong (1904/1960) and Lewis (1986). But the Quinean extensionalist is typically a Quinean actualist as well, so it is natural here to associate nonactuals with intensional contexts.

[7] On modal fictionalism, see Rosen (1990, 1993, 1995); Nolan (1997, 2002).

[8] Since Oscar's two i-commitments denote the same object in his model (= the model where his beliefs are all true), then 'water' and 'H_2O' *are* intersubstitutable in sentences that express Oscar's beliefs. However, I assume the object is still individuated intensionally, since other co-referring terms might not intersubstitute (e.g., 'dihydrogen monoxide'). If this is contentious, then I could concede that the object is not individuated in a *wholly* intensional way; one might call it "quasi-intensional" instead without loss to the main arguments.

[9] The scare quotes on the variable are a reminder that it can be substituted with an empty name. (In which case, our Quinean says that to put "*x*" in one's ontology is to put an ersatz, fictional, etc., object in one's ontology, per the Quinean's preferred modal metaphysics.)

[10] Arguably, there are ontologically neutral uses of 'exist' in English; see Azzouni (2004, 2007). If so, then clearly (SUF*) should add that "*x* exists" suffices for ontological commitment only if 'exist' is used in an ontologically loaded way. Regardless, I shall ignore this subtlety in what follows.

[11] 'Stipulative' is not quite a fair word here, since 'i-commitment' does not express a thoroughly novel concept. It rather expresses a (rationally motivated) "successor concept" to the more imprecise, ordinary notion of "belief in what exists." Accordingly, while (SUF*) is relatively uncontroversial, it is not completely so. In particular, some

would desire to limit (SUF*) to statements in a *regimented* language, since in ordinary language, statements of the form "*x* exists" seem occasionally to be ontologically non-committal (Azzouni 2007). But at least, Quine and his followers regard ordinary existence-statements as committing. (Quine 1952: "Sheep are real, unicorns not…Such is the ordinary usage of the word 'real', a separation of the sheep from the unicorns;" p. 212).

[12] Here, '2water' is assumed to be the English translation of 'water' in Twin English. Puzzles arise when a speaker is ascribed a belief in a language different from the language of her assertions. (Pierre apparently believes both that London is pretty and that London is not pretty, even though he intuitively does not belief a formal contradiction; see Kripke 1979.) Yet such puzzles will be irrelevant here. The issues in what follow do not concern Oscar believing *formal* contradictions (though his capacity to believe metaphysical impossibilities is pertinent).

[13] Here, as elsewhere in the literature, a "watery" substance is one with the superficial properties of water.

[14] Similarly, some have worried about a case where Oscar's theory contains the statement that there are no metaphysical impossibilia. But to simplify things, I am considering a case where Oscar does not have such a belief. (This is not far fetched by the way, since 'metaphysical impossibility' is philosophers' jargon.)

[15] It is worth remarking that an analogous problem does *not* arise for a proxy vis-à-vis the phlogiston theory. For in that case, 'phlogiston' keeps its standard interpretation by remaining empty in all models of concern.

[16] An anonymous referee objects that I also face difficulties with the "standard" interpretation of 'XYZ', for it standardly denotes an *imaginary* object. Premise (1) of the incompatibility argument is then false, since imaginary objects are not a *watery* kind. (They are perhaps mental objects of some sort.) However, this is a case where the fictional status of "XYZ" is getting in the way; I would invite one to replace 'XYZ' in the argument with a term for a non-fictional twin, such as 'D_2O'.

The referee also objects that if Oscar can use 'XYZ' (or 'D_2O') as a nonstandard name for water/H_2O, then there would be no pressure to put a second watery kind in his ontology. For it should contain only what *he* refers to when he says what exists. This, of course, contravenes the proviso that ontological commitments are fixed via a standard interpretation of the terms. Yet perhaps one should instead consider the "speaker's reference" of a term, rather than its "semantic reference" (cf. Kripke 1977). But, following remarks by Burge, we miss out on part of what Oscar believes if we interpret "D_2O exists" as expressing *only* his belief that water exists. Specifically, we fail to capture that Oscar has the mistaken, object-level belief that the stuff in question *is* D_2O. (This is the same sort of

move offered vis-à-vis Adam and sofas; so I won't belabor it again.) Hence, while Oscar is clearly committed to water, the externalist holds he is *also* committed to D_2O (even if *de facto* the "speaker referent" of 'D_2O' is water).

[17] 'True only' is meant to block a dialetheist reply. Though in some dialetheic logics, a sentence can be true only and false... Let us then add that 'Bertie = Möbius' is not false. Yet a dialethic logic can also have wffs that are true only, not false—and false. So we would need a proviso against that too, and so on, ad trans-infinitum.

References

Adams, R. (1974). Theories of actuality. *Noûs*, 8, 211–231.

Armstrong, D.M. (1989). *A combinatorial theory of possibility*. (Cambridge: Cambridge UP).

Azzouni, J. (2004). *Deflating existential consequence: A case for nominalism*. (New York: Oxford UP).

____. (2007). Ontological commitment in the vernacular. *Noûs*, 41, 204–226.

Boghossian, P. (1997). What the externalist can know a priori. *Proceedings of the Aristotelian Society*, 97, 161–175.

Burge, T. (1979). Individualism and the mental. *Midwest Studies in Philosophy*, 4, 73–121.

____. (1982). Other bodies. (In A. Woodfield (Ed.), *Thought and object* (pp. 97–120), New York: Oxford UP.)

____. (1986). Intellectual norms and the foundations of mind. *Journal of Philosophy*, 84, 697–720.

____. (1988). Individualism and self-knowledge. *Journal of Philosophy*, 85, 649–663.

Devitt, M. & Sterelny, K. (1987/1999). *Language and reality: An introduction to the philosophy of language*, 2nd edition. (Cambridge, MA: MIT Press).

Dupré, J. (1981). Natural kinds and biological taxa. *Philosophical Review*, 90, 66–90.

Jubien, M. (1972). The intensionality of ontological commitment. *Noûs*, 51, 378–387.

Kripke, S. (1977). Speaker's reference and semantic reference. *Midwest Studies in Philosophy*, 11, 255–296.

____. (1979). A puzzle about belief. (In A. Margalit (Ed.), *Meaning and Use* (pp. 239–283) Dordrecht, The Netherlands: Reidel.)

Lepore, E. & Loewer, B. (1986). Solipsist semantics. *Midwest Studies in Philosophy*, 10, 595–614.

Lewis, D. (1984). Putnam's paradox. *Australasian Journal of Philosophy*, 62, 221–236.

____. (1986). *On the plurality of worlds*. (Malden, MA: Blackwell).

Lycan, W.G. (1979). The trouble with possible worlds. (In M. Loux (Ed.), *The Possible and the Actual* (pp. 274–316). Ithaca, NY: Cornell UP.)

____. (2008). *Philosophy of language: A contemporary introduction* (2nd edition, New York: Routledge).

Malt, B. (1994). Water is not H2O. *Cognitive Psychology*, 27, 41–57.

Martinich, A. & Stroll, A. (2007). *Much ado about nonexistence*. (Landham, MD: Rowman & Littlefield).

McGinn, C. (1977). Charity, interpretation, and belief. *Journal of Philosophy*, 74, 521–535.

Meinong, A. (1904/1960). The theory of objects. (In R. Chisholm (Ed.), *Realism and the Background of Phenomenology* (pp. 76–117). Glencoe, IL: Free Press.)

Nolan, D. (1997). Three problems for 'strong' modal fictionalism. *Philosophical Studies*, 87, 259–275.

____. (2002). *Topics in the philosophy of possible worlds*. (New York: Routledge).

Parent, T. (2013). Externalism and self-knowledge. (In E. Zalta (Ed.), *Stanford Encyclopedia of Philosophy*. http://plato.stanford.edu/entries/self-knowledge-externalism.html.)

____. (2015). Self-knowledge and externalism about empty concepts. *Analytic Philosophy*, 56, 158–168.

Plantinga, A. (1976). Actualism and possible worlds. *Theoria*, 1, 139–160.

Putnam, H. (1973). Meaning and reference. *Journal of Philosophy*, 70, 699–711.

____. (1975). The meaning of 'meaning'. (In his *Mind, Language and Reality: Philosophical Papers Vol. 2* (pp. 215–271). Cambridge: Cambridge UP.)

____. (1977). Realism and reason. *Proceedings and Addresses of the American Philosophical Association*, 50, 483–498.

____. (1980). Models and reality. *Journal of Symbolic Logic*, 45, 464–482.

____. (1981). A problem about reference. (In his *Reason, Truth, and History* (pp. 22–48). Cambridge: Cambridge UP.)

Quine, W.V.O. (1948). On what there is. *Review of Metaphysics*, 2, 21–38.

____. (1951). Ontology and ideology. *Philosophical Studies*, 2, 11–15.

____. (1952). On mental entities. Reprinted in his (1966). The ways of paradox and other essays (1st ed., pp. 208–214). Cambridge: Harvard UP.

____. (1960). *Word and object*. Cambridge, MA: MIT Press.

Rosen, G. (1990). Modal fictionalism. *Mind*, 99, 327–354.

____. (1993). A problem for fictionalism about possible worlds. *Analysis*, 53, 71–81.

____. (1995). Modal fictionalism fixed. *Analysis*, 55, 67–73.

Sider, T. (2012). *Writing the book of the world* (New York: Oxford UP).

Stich, S. (1978). Autonomous psychology and the belief-desire thesis. *The Monist*, 61, 573–591.

Taylor, K. (1989). Narrow content functionalism and the mind-body problem. *Noûs*, 23, 355–372.