

Truth in virtue of meaning

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1. introduction

In recent work on *a priori* justification, one thing about which there is considerable agreement is that the notion of truth in virtue of meaning is bankrupt and infertile. (For the sake of more readable prose, I will use ‘TVM’ as an abbreviation for ‘the notion of truth in virtue of meaning’.) Arguments against the worth of TVM can be found across the entire spectrum of views on the *a priori*, in the work of uncompromising rationalists (such as Bonjour (1998)), of centrist moderates (such as Boghossian (1997)), and of uncompromising empiricists (such as Devitt (2004)). My aim is to dispute this widespread opinion.

The outline is as follows: First, §§2-3 consist of preliminary stage-setting. Then, in §4 I will argue that some of the most prevalent arguments against the worth of TVM – in particular, one which is given clear expression by Quine (1970), and is recently reinforced by Boghossian (1997) – do not engage with the core idea motivating TVM. After deflecting this charge of incoherence, the aim of §§5-8 is to work toward developing a useful conception of TVM.

A preliminary note on terminology: What, exactly, is TVM a property of? Sentences are not the best candidates, because sentences *per se* are not true or false (*a fortiori* not true or false in virtue of anything). Rather, a use of a sentence in a context can express something, and the question of truth or falsity arises with respect to what is expressed. So, is TVM then a property of what is expressed – i.e., a content, or proposition? One problem with the notion of propositions as TVM is that relevantly

different sentences can be used to express the same proposition. For example, if a Millian view of names is compatible with the idea that ‘Hesperus is Hesperus’ and ‘Hesperus is Phosphorus’ might differ with respect to TVM-status,¹ then it is not simply propositions for which the question of TVM-status arises. More generally, if the question of TVM-status is to be distinct from the metaphysical question of necessity (if it is even intelligible that ‘Water is H₂O’ is necessary but not TVM, say, or that ‘I am here now’ is TVM but not necessary), then the question of TVM-status does not solely concern propositions.

So, the question of truth brings propositions into the picture; for this question does not arise at the level of sentences. However, given that there can be relevant differences between distinct sentences which express the same proposition, then propositions are not the only thing in the picture. Thus, the bearer of TVM will have to encompass both a proposition (in order to accommodate the question of truth) and the means of expressing that proposition (in order to accommodate the non-truth-conditional element in TVM-status). Hence, I will follow Boghossian (1997) and take the bearers of TVM to be statements, where a statement is a particular, dated use of a sentence that expresses a proposition. So, TVM is a property not of symbols, or of contents, but of specific uses of symbols to express specific contents.

2. Situating the issues: Quine’s dictum and TVM

Quine is a seminal source of the widespread opinion that TVM has no place in serious, rigorous philosophy. (Boghossian and Peacocke (2000, 4) give a crisp statement of this prevalent view: “Our own view is that Quine decisively refuted the idea that anything

could be true purely in virtue of meaning.”) This consensus stems not so much from Quine’s (1951) arguments against the analytic/synthetic distinction; for even though those arguments have played a major role in shaping the contemporary terrain, there is less and less agreement all the time about their cogency, or upshot.² Rather, many philosophers are careful to line up onside with Quine’s flat-footed insistence that ‘no [statement] is true but reality makes it so’ (1970, 10).³ Vague though Quine’s dictum is, it does have an unassailable air, and it seems to be in tension with TVM.

However, there is an understanding of TVM to which Quine’s dictum is irrelevant. (Arguably, it is the core of the notion, historically and conceptually; however, my interest here is to establish its coherence and usefulness, not its historical pedigree.⁴) The conception in question sees TVM as, first and foremost, a source of justification that is neither empiricist nor Platonist. (By ‘empiricist’ I mean the view that experience is the only legitimate source of justification. By ‘Platonist’ I mean the sort of rationalism which takes a non-natural relation between a mind and non-spatio-temporal entities to be a legitimate source of justification. These stipulations are crude, but I just use them for stage-setting.) There are familiar reasons (which I will not rehearse) for thinking that empiricist justification cannot adequately account for all of our knowledge, and that Platonist justification is too obscure to be of much help. A brute datum is that we are justified in believing some statements that are universal in scope, and not subject to refutation by contingent happenstance, such as:

[1] All squares have four sides.

[2] No grandmother is childless.

[3] Two is a factor of every even number.

[4] One cannot steal one's own property.

The challenge is to explain how such beliefs are justified in a way that avoids both the inadequacy objection to empiricism and the obscurity objection to Platonism. As I use the term here, TVM is a strategy to deal with that challenge. At the core, the idea is that grasp of the meanings of the constituent terms is sufficient to justify the belief in the truth of such statements. In such cases, understanding of meaning grounds the recognition of truth.⁵

There are of course many problems with this strategy – a lot of questions need to be answered, before we should be convinced that TVM can fulfill its promise to afford an adequate, non-obscure account of our justification for (at least some of our) universal, necessary knowledge. (Cf. Quine (1951) for a classic statement of some problems, and BonJour (1998, Ch.2) for a recent survey.) However, the present point is that TVM, thus understood, is hardly inconsistent with Quine's dictum. As I will explain in §§4-6, appeal to grasp of meaning as a source of justification does not commit one to the view that there is something unreal or supernatural at work, grounding the truth of some magical class of statements. So, insofar as Quine's dictum is a central reason motivating the widespread opinion that TVM can do no serious, rigorous work in philosophy, this widespread opinion lacks justification.

In short, then, one of my aims is to explain why TVM is not inconsistent with Quine's dictum. Insofar as Quine's view is that both meaning and reality play a role in determining the truth-value of any statement, then I entirely agree. However, there is no compelling inference from here to a general, comprehensive case against the TVM story about justification. Alternatively, there is much to be said for the view that there is a

continuum, not a categorical border, between contingent empirical propositions and those akin to [1]-[4]. However, to try to get from here to a general, comprehensive case against TVM is like trying to argue that nothing is either black or white from the premise that there is an indefinite range of shades of grey. This inference is far from compelling; and, even if it were compelling, it still might not amount to sufficient reason to reject or re-classify the brute datum.

3. the matter of ‘meaning’

One of the reasons why there has been relatively little discussion of TVM in recent decades is that there is such a wide variety of distinct theoretical approaches to meaning. There are orientations that take the basis of meaning to be sense, reference, use, intentions, and truth-conditions; each of these orientations has distinct sub-varieties, and that list is far from exhaustive. As a result, it is hard to be any more precise about exactly what a particular claim of TVM comes to (in addition to saying that grasp of meaning grounds recognition of truth), without alienating a large percentage of the participants in these debates. To proceed in terms of any of sense, reference, use, intentions, or truth-conditions would be controversial; while to appeal to all of them would be untidy and vague.

For present purposes, though, it is neither necessary nor desirable to pin ‘meaning’ down more precisely. The only ones who ought to feel alienated by this discussion are the meaning-skeptics. By §6, I will be in a position to explain why, if meaning is determinate, then there will be statements to which the TVM story about justification applies.⁶ That is, whichever approach to meaning to which one subscribes, as

long as it is possible, if not common, that a speaker intends to convey some specific content with a statement, and possible, if not common, that hearers are able to identify that content, then the brute datum described above is bound to arise. On any approach which denies that meaning is hopelessly indeterminate, there is bound to be something special about the likes of [1]-[4], when it comes to the relation between grasp of meaning and justification.

So this debate takes place within the large and diverse camp of non-skeptics about meaning. Within this camp, there is a range of views as to how exactly to understand the notion of meaning, and there is much room for disagreement about borderline candidates for TVM status. Crucially, though, there are some relatively clear, uncontentious paradigm cases. The bottom line of this section is this: If our aim is to evaluate the worth of TVM, then the central question concerns our justification for believing certain kinds of universal, necessary statements; as much as is possible, this inquiry ought to remain ecumenical about meaning.

4. the critical equivocation in the case against TVM

I take Quine's (1970, 10-12) argument based on the dictum that no statement is true but reality makes it so (cf. note 3), and a closely related argument of Boghossian's (1997, 334-7), to be representative of a prevalent line of thought, explicit statements of a widespread but implicit view. The aim of this section is to show that these arguments are flawed by a fallacy of equivocation.

Note first that Boghossian (1997) explicitly adheres to Quine's dictum that all statements owe their truth-value to something distinct from meaning, which he severally

characterizes as ‘reality’, ‘the world’ or ‘the facts’. For ease of exposition, I will stick to ‘the facts’, and I will abbreviate this version of Quine’s dictum (i.e., ‘no statement is true but that the facts make it so’) as ‘TVF’. The structure of this case against TVM, then, is as follows:

P#1: TVF is unassailable.

P#2: TVF is incompatible with TVM.

Therefore, TVM is untenable.

This argument commits a fallacy of equivocation. There is a sense of ‘fact’ according to which TVF is unassailable, and a sense of ‘fact’ according to which TVF is incompatible with TVM. However, these are distinct senses of the term. There is no one reading that makes both premises true. Thus, this case against TVM is flawed.

Consider first P#1, which Boghossian motivates with the following sorts of consideration:

After all, if a statement is known *a priori*, then it must be true. And if it is true then it must be factual, capable of being true or false. (1997, 334)

In this sense of ‘factual’, to be factual is to be truth-evaluable – it is to make a claim, or to have truth-conditions. Note how heterogeneous the correlative conception of a fact must be, metaphysically speaking. For example, that no grandmothers are childless, that unicorns have one horn, that there is an even prime, that Germany is not in Asia, that hydrogen is less dense than gold, that justice is a virtue, that all humans are mortal, that there is no rhinoceros in this room, etc., etc., are one and all facts, in this sense. The facts,

in this sense, are as diverse in nature and status as are the indefinite range of things about which humans can think and talk.

This is the sense of ‘factual’ involved in Quine’s (1970, 10-12) Tarski-inspired argument described in note 3. If the criterion for counting as factual is to issue in a truth when plugged into the schema: ‘S’ is T iff S, then it is not a very discriminating property. Since this notion of ‘fact’ does not correspond to any precise or homogeneous metaphysical category, I will call it the ‘Tarski-semantic notion of fact’.

Given this Tarski-semantic sense of fact, P#1 is uncontroversial, but P#2 is far from obvious. Consider, for example:

[2] No grandmother is childless.

It is, to say the least, not clear that there is any tension whatsoever between, on the one hand, the claim that [2] is T iff no grandmother is childless, and, on the other hand, the claim that one’s justification for believing [2] comes neither from empirical investigation nor from Platonist intuition, but rather simply from understanding what it takes to be a grandmother. That a sentence issues in a truth when plugged into the Tarskian schema (‘S’ is T iff S) is entirely irrelevant to questions about justification. (Otherwise, that would spell trouble for a Tarskian approach to truth, one of whose key virtues is the clear distinction between the semantic concept of truth and epistemic concepts like justification.) Thus, if we read ‘fact’ in this Tarski-semantic way, then, TVF is compatible with TVM. To say that a statement is truth-evaluable does not rule out any possibilities as to how one might be justified in believing that it is true. On this reading, then, P#2 should be rejected.

Burge (2000, 16) affords another way to articulate this problem with P#2. When Leibniz or Frege contrast *a priori* truths of reason with *a posteriori* truths of fact, according to Burge, the point of the contrast is not that *a priori* truths are not factual, but rather that they are not *merely* factual. The claim is that such truths are not subject to refutation by contingent happenstance, not that they are entirely and categorically unrelated to contingent happenstance. So, [2], for instance, could be not *merely* factual, but not thereby non-natural, other-worldly. The TVM story about justification might apply, but nonetheless the statement is still about our own flesh-and-blood grandmothers. So, again, it appears that P#2 is seriously flawed. A statement could be at once both factual, in the Tarski-semantic sense, while also being not *merely* factual, in the Leibniz-Frege sense. Thus, one and the same statement could be Tarski-semantic-factual and yet still be a candidate for the TVM story about justification.

There is a distinct, more metaphysically robust, conception of fact, given which P#2 fares much better. It is a long way from Tarskian schemas, though, closer to what Armstrong (1996) calls ‘truth-makers’, or to Russell’s (1918) and Wittgenstein’s (1921) logical atoms. Facts in this sense are discrete mind-independent entities to which contingent, empirical statements stand in some specific semantic relation (such as representation). Famously, Russell and Wittgenstein quarreled over whether it is a fact, in this sense, that there is no rhinoceros in the room. With respect to metaphysical worries about this variety of fact, negative existentials are just the tip of the iceberg. Russell (1918) seems to have never been able to convince himself of the existence of such general facts as that all humans are mortal, though he recognizes that his current views of meaningfulness seem to commit him to such entities. (Cf. Lewis (1998) for some related

objections to Armstrong (1996).⁷) Russell (1918, 211) reports having “nearly produced a riot” at Harvard in 1914 by arguing for the existence of negative facts. Surely, the claim that “‘There is no rhinoceros in this room’ is T iff there is no rhinoceros in this room” would not have provoked such a reaction – even if the pragmatists would have disputed it.

It is in this second, metaphysical sense of ‘fact’ that the approach to *a priori* knowledge associated with Hume (1748) and Ayer (1936) is not unfairly glossed as the view that *a priori* knowledge is devoid of factual content. (I take it that Hume and Ayer are saying something different from the above-discussed view that *a priori* knowledge is not *merely* factual.⁸) That is, what Hume and Ayer claim is that the likes of:

[1] All squares have four sides.

do not rule out any contingent empirical possibilities, and this explains why they are not subject to refutation by contingent happenstance. Obviously, but nonetheless crucial for present concerns, the Hume-Ayer claim is certainly not in the slightest tension with anything along the lines of: [1] is T iff all squares have four sides. Hume and Ayer have no reason or inclination to deny that such statements are Tarski-semantic-factual.

In this metaphysical sense of ‘fact’, there is some tension between TVF and TVM. To be factual, in this metaphysical sense, is to represent a contingent, empirical state of affairs; for any statement that represents a contingent, empirical state of affairs, there is reason to think that the TVM story about justification is probably inappropriate.⁹ The price of this strategy of saving P#2 from imposing a false dilemma, though, is P#1. If we read ‘factual’ in this metaphysical sense, then TVF is eminently assailable, as is evidenced by Hume’s (1748) reasons for positing relations of ideas in the first place, by

Russell's (1918) struggles with negative and general facts, and by Lewis' (1998) criticisms of Armstrong (1996). In short, in order to make P#2 true, you have to think of TVF and TVM as mutually exclusive answers to an Armstrong-style demand for truth-makers. This issues an understanding of TVF that may well be interesting and even defensible, at least for a broad class of statements, but is certainly assailable. So, given this second, metaphysical sense of 'fact', P#1 is controversial, not the sort of thing to which one can help oneself on the strength of vague slogans, or disquotational schemas.

To sum up: Quine (1970, 10-12) and Boghossian (1997, 334-7) provide clear illustrations of a prevalent line of thought that is widely but mistakenly thought to spell the end for TVM. The semblance of a compelling case against TVM depends on taking 'factual' in the Tarski-semantic sense in P#1 while taking it in the metaphysical-truth-maker sense in P#2. Once we recognize and guard against this slide, either P#1 is extremely contentious (if we adhere to the metaphysical-truth-maker sense of 'factual') or else P#2 is false (if we adhere to the Tarski-semantic sense of 'factual'). So, there is no cogent case against TVM forthcoming down this avenue.

Given that these arguments against the coherence of TVM are lame, and provided that we have an account of TVM that unequivocally rejects the notion that meaning has supernatural truth-making powers (which is the primary aim of §§5-6), TVM may yet hold some promise to provide a compelling account of justification, for at least some of our universal, necessary knowledge.

5. a straw conception of TVM

I will briefly describe a straw conception of TVM, for two reasons. First, I want to explicitly distinguish it from the view I will subsequently develop, and second, it will lead us into a crucial point about linguistic conventions.

The straw conception of TVM has it that, as Boghossian (1997, 336) puts it, “our meaning p by S makes it the case that p ”. The idea here seems to be that our meaning conventions have the power to move things about in mind- and language-independent reality, to change the nature of the things about which we think and talk. This sort of view takes our meaning-conventions to be one of the candidate answers to the Armstrong-style demand for truth-makers – and an answer that clearly excludes anything language-independent (be it reality, or the facts, or what have you) from any truth-making role. It takes our meaning-conventions to have some magical potency to change the *ordo essendi*.

Boghossian (1997) clearly rejects this conception of TVM, as embodying everything that is wrong with an irredeemably confused conception of analyticity. I, too, want nothing to do with this strange view. However, as far as I can tell, no one ever held this view. In particular, I see no reason to ascribe any such view to the conventionalists in the philosophy of logic against whom Quine (1935; 1954) was arguing – or, more generally, to the logical empiricists against whom Quine (1951) was arguing. What the conventionalists were after is a clear distinction in status and force between conventions or rules, on the one hand, and other kinds of propositions, on the other hand. (To borrow a prevalent metaphor, conventionalism needs only a firm distinction between the rules of a game and the moves made within that game; it does not need any further suggestion

that conventions or rules are supernatural.¹⁰) More generally, what the logical empiricists were after is a non-obscure but adequate solution to the problem of *a priori* knowledge. No one in the neighborhood has any reason, or tendency, to claim that conventions have the power to shape or transform language-independent reality.¹¹

There is, however, an incontrovertible point in the neighborhood of the above straw conception of TVM. The straw conception has it that:

[S] Our meaning p by S makes it the case that p.

In contrast, the distinct, more refined point is that:

[S(i)] Our meaning p by S makes it the case that, if p is impossible, then what S expresses is false in every possible circumstance.

[S(ii)] Our meaning p by S makes it the case that, if p is contingent, then what S expresses is true in some possible circumstances and false in some possible circumstances.

[S(iii)] Our meaning p by S makes it the case that, if p is necessary, then what S expresses is true in every possible circumstance.

The crucial difference is that [Si-iii] explicitly separate out two very different factors that are relevant to the question of a statement's truth-value – i.e., first, there is the conventional link between S and p; second, there is p's truth-conditions. It will prove worthwhile to unpack this a bit.

The conventional link between S and p is in a very clear sense arbitrary. It is in no case necessary that any particular sound or symbol (such as 'no', 'grandmother', or whatever) has the particular meaning that it does. It follows that, trivially, which proposition is expressed with a statement, *a fortiori* the statement's modal status, is in a

clear sense contingent upon conventions. Since historical accidents play a role in setting the meanings of all the constituent parts of, for instance:

[2] No grandmother is childless.

the link between the sentence and what it expresses is also, in a sense, a complex conventional historical accident. (If 'no' meant what 'all' actually does, then [2] would express a different proposition; if 'grandmother' meant what 'tiger' actually does, then [2] would express a different proposition; and so on.)

Hence, if we did not hold linguistic conventions fixed, in the study of modal matters, all would be trivially contingent – it is in no case necessary that any given sentence express the particular proposition that it does. Crucially, though, TVM (along with other modal notions such as necessity and *a priori*) has nothing to do with alternative possible linguistic conventions. Modal questions concern what statements express, not what they might have expressed. To bring up alternative possible meanings, when discussing modal questions, is to change the subject.¹²

Perhaps not surprisingly, given his rhetorical goals, Quine was prone to run roughshod over this distinction between the conventional link between S and p, on the one hand, and the truth-conditions of p, on the other. Consider, for example:

The statement 'Brutus killed Caesar' would be false if the world had been different in certain ways, but it would also be false if 'killed' had the sense of 'begat'. (Quine, 1951, 36)

Insofar as this line of thought is tending toward the conclusion that "...in general the truth of statements does obviously depend upon both language and upon extralinguistic fact ..." (Quine 1951, 41), then well and good. However, Quine is not content to stop there; he is after further conclusions to which his entitlement is questionable, such as that TVM is incoherent or worthless.

The flaw in Quine's reasoning here is crucial to present concerns. Quine treats these two separate truth-value-determining-factors (i.e., the conventional link between S and p, and the truth-conditions of p) as if they were equivalent in status. To the contrary, these issues have to be treated as distinct levels: linguistic conventions have to be settled first so that we can fix on a particular p, after which point linguistic conventions are entirely irrelevant to modal questions about p. On this point, Stalnaker (1972) is a clear advance beyond Quine:

[W]hen a statement is made, two things go into determining when it is true or false. First, what did the statement say: what proposition was asserted? Second, what is the world like: does what is said correspond to it? (1972, 177)

Stalnaker's first question is the conventional one; whereas modal questions only pertain at the level of the second question, subsequent to settling on answers to the first question.

So, first we settle on our meaning-conventions, and hold them fixed; then we can inquire into such special modal status as *a priority* or necessity. Bearing this distinction in mind, we are now in a position to articulate a coherent and useful conception of TVM.

6. what, exactly, does it mean to say that something is true in virtue of meaning?

The notion of mind- and language-independent necessity became much more widely accepted in the latter decades of the 20th century, after enduring varying degrees of neglect or hostility throughout and well beyond the Modern period. Fallacies and confusions were detected in several varieties of argument against the coherence of metaphysical necessity, and rigorous semantics for modal discourse were developed.¹³ We post-Kripkeans are more at home with many varieties of modal attributions; even if there is still much controversy as to understanding the exact content and import of such attributions. That is, metaphysicians of many different stripes and orientations can agree that it is not possible for something to have the property 'square' but not be four-sided; to have the property 'grandmother' without ever having (or having adopted) children; to have the property 'water' but not be H₂O. It is at least commonplace, if not orthodox, in these liberal times, to accept mind- and language-independent necessary connections among properties.

Assuming that there are such necessary connections among properties, and assuming that meaning is determinate, there will be candidates for the TVM story about justification. That is, if our meaning-conventions determine that 'square' and 'four-sided', or that 'grandmother' and 'childless', express certain properties, and if it is intelligible and evident that there are necessary relations between such pairs of properties, then there will be propositions such that grasp of their meaning is sufficient for recognition of their truth. Here the above distinction between conventional links between S and p and truth-conditions of p is crucial. First, it is a contingent conventional accident that such symbols as 'F' or 'G' are used to express the properties that they in fact

express; still, it may yet be a metaphysical necessity that all Fs are G. Given that some relations among properties are not vulnerable to refutation by contingent happenstance, it would be awfully odd if we were somehow barred from making statements whose role is to express such exceptionless relations.

So, there is good reason to think that, in some cases, just a grasp of the concepts F and G is sufficient to justify the belief that all Fs are G. Given the paucity of good alternative accounts of *a priori* justification, this TVM story about justification merits serious attention. At the very least, I hope it is clear that this TVM story about justification has nothing to do with Boghossian's (1997) metaphysical conception of analyticity, and nothing to do with denying factual content to *a priori* truth, in the Tarski-semantic sense of 'factual'. There is nothing obscure or magical at work here; the only requisite ingredients are necessary relations among properties and conventional relations between expressions and properties. Of course, both metaphysical necessity and the determinacy of meaning are problematic notions, and I have not even attempted to argue in favor of the coherence or indispensability of either notion here. The present point is just that anyone who accepts both the notions of necessity and of meaning has already purchased all the ingredients for the TVM story about justification (cf. note 6); since TVM is widely held to be such a far cry more contentious than either metaphysical necessity or the determinacy of meaning, the point is worth making.

Clearly, though, there are some necessary truths to which the TVM-story does not apply. Central here are Kripke's (1972) necessary *a posteriori* cases involving identifying the essence of a natural kind (such as 'water is H₂O' or 'heat is the motion of molecules'). The question of how to distinguish the TVM-necessities from the non-TVM

necessities leads us into another central theme from Quine (1951), which I will call ‘the challenge of revisability’.

7. the challenge of revisability

A longstanding and central plank of Quine’s crusade against special modal categories – such as necessary truth and *a priori* knowledge – is the claim that all human knowledge is revisable. (Cf. Quine (1951, §6) for the classic statement.) Looking back over the course of history, this claim looks scarcely deniable. For example, that space is Euclidean, that whales are fish, that there can be no such thing as a sub-atomic particle (since ‘smallest, indivisible’ was originally part of the sense of ‘atom’), etc., were all once considered to be justified *a priori*, but are no longer so-classified; and it is hard to see how to conclusively rule out such a change in status of our beliefs. The question is what this phenomenon of revisability entails, for the study of modal distinctions. I will briefly describe three responses to this challenge of revisability, which I will call ‘skepticism’, ‘absolutism’, and ‘revisionism’.

Modal skeptics follow Quine (1951) in holding that the challenge of revisability shows that there are no special modal categories, that the web of belief is seamless. (Cf. Devitt (2004) for a recent statement of modal skepticism.) The skeptic’s biggest problem is the original adequacy objection to strict empiricism – i.e., the brute datum will not go away. I have seen no compelling case for skepticism; and, in any case, my present interests lie elsewhere.¹⁴

Modal absolutists dig in their heels and insist that immunity to recalcitrant experience is a central component of these special modal categories; so to hold that *a*

priori justification is revisable, for example, is to change the subject.¹⁵ Frege (1884, 3) gives colorful expression to the absolutists' creed: "An *a priori* error is thus as complete a nonsense as, say, a blue concept". Modal absolutism is a central plank in the traditional canon – for example, the view that knowledge of necessary truths can only be justified *a priori*, which is explicitly endorsed by Kant (1784, [B15]) among many others, depends upon this presumption that there is some supernatural potency about *a priority*. However, absolutists must claim that these putative revisability-cases are actually cases in which one just mistakenly thought that one's belief (e.g., about Euclidean geometry, atoms, or whales) was justified *a priori*. Among the problems with this option is that the notion of *a priority* becomes only useful for infallible agents, because agents like us could never conclusively justify the claim that something is knowable *a priori*. Thus, the absolutists' notion of *a priority* would be ill-suited to much work in epistemology. In any case, most contemporary theorists seem to be wary of modal absolutism – for example, it is explicitly considered and rejected by Bonjour (1998, Ch.4), Field (2000), Peacocke and Boghossian (2000), Railton (2000), and Casullo (2003, Ch.2). Crudely put, even if Quine's challenge of revisability does not suffice to support modal skepticism, it does amount to a rather strong case against modal absolutism.

Modal revisionists side with Carnap (1950) against Quine (1951) in retaining modal distinctions but admitting that they are in some sense framework-relative.¹⁶ According to both Coffa (1991, Ch.10) and Friedman (2000, 370), the first clear articulation of revisionism occurs in Reichenbach (1920). Reichenbach alleges that Kant uses '*a priori*' in two distinct senses – on the one hand, to mean necessary and eternal, and on the other hand, to mean constitutive of the concept of the object of knowledge –

and goes on to argue that a moral of the theory of relativity is that the former be dropped while the latter retained. Revisionism seeks to define a principled middle ground between absolutism and skepticism about *a priori* justification, based on this notion of the constitutive but non-absolute *a priori*. The revisionists' response to the challenge of revisability is to retain the concept of *a priority*, in many core senses of the term, while explicitly rejecting certain other of its traditional associations (such as necessity or infallibility). In addition to Carnap's (1950) linguistic frameworks, this tack on the *a priori* is also widely associated with Wittgenstein (1969). Much interesting and challenging recent work on the *a priori* consist of variations on this revisionist theme – cf., e.g., Field (2000), Friedman (2000), Railton (2000).

In the next section, I will return to the pending question about distinguishing the TVM-necessities from the non-TVM necessities. First, I will further motivate my preferred variant of TVM-revisionism by explaining how it dovetails with Kripke's (1972) distinction between alethic and epistemic modalities.¹⁷ As Kripke (1972, 34-8) points out, necessity and *a priority* are distinct concepts. Necessity is a notion of metaphysics: a statement expresses a necessary truth if and only if what it expresses could not possibly be false. In contrast, *a priority* is an epistemological concept: a statement is justified *a priori* if and only if it can be known to be true independently of experience. Since necessity and *a priority* attribute different properties to a statement, different standards of evaluation apply:

[Necessity] in and of itself has nothing to do with anyone's knowledge of anything. It's certainly a philosophical thesis, and not a matter of obvious

definitional equivalence, either that everything *a priori* is necessary or that everything necessary is *a priori*. (Kripke, 1972, 36)

Kripke (1972) goes on to argue that there are both necessary *a posteriori* statements and contingent *a priori* statements.

A corollary that is of particular interest in the present context is that, while alethic modalities are mind- and language-independent matters of metaphysics, epistemic modalities are thoroughly mind- and language-dependent. That which is necessary is not revisable, for it is precisely the things which are the most firmly bolted down that that concept is used to single out. (Of course, any particular agent's guesses as to what is necessary may be revised over time, as a function of evidence, insight, etc.; but the *truth-conditions* of 'It is necessary that P' do not change over time.) However, for fallible agents like us, it is only prudent good sense to hold that what counts as justified *a priori* will vary as do our beliefs and the concepts which they involve. So, for a post-Kripkean framework-revisionist, a major difference between attributions of alethic modality (e.g., 'It is necessary that P') and attributions of epistemic modality (e.g., 'My belief that P is justified *a priori*') is that the truth-conditions change over time only in the epistemic case. Metaphysical necessity is framework-independent, whereas *a priori* justification is framework-relative.

For example, if it is necessary that heat is the motion of molecules, then it did not just become necessary once it occurred to someone, or once it became sufficiently verified and accepted by the experts. Metaphysical necessities could not have been otherwise, and are categorically indifferent to whether anyone knows anything about

them. In contrast, my favored revisionism holds that ‘It is justified *a priori* that whales are fish’ and ‘It is justified *a priori* that atoms are indivisible’ were once true, but are now false. Note though that change in the truth-conditions of an attribution of epistemic modality can occur only given an updating of the relevant framework – i.e., such a change depends on a significant change to the content of at least one of the relevant constituent concepts. This explains the qualified but still significant sense in which this sort of revisionism retains an indefeasibility requirement (cf. note 16). My ancestors’ belief that whales are fish has not been falsified, because whales still do satisfy the relevant superficial, unscientific criteria – i.e., their concept of ‘fish’ was something like ‘anything that lives in water, swims, and is more-or-less shaped like a tuna’. But, in my dialect, it is not true, let alone justified *a priori*, that whales are fish. My concept of ‘fish’ is a rather distinct ancestor of theirs, a much more precise biological kind term, which differs in conditions of satisfaction. (Cf. note 19 for further refinement.)

So, Kripke’s distinction lends credence to the revisionists’ tenet that epistemic modalities are revisable, framework-relative, subject to re-evaluation in cases of conceptual change. Thus, absolutism about epistemic modalities is not just immodest; further, Carnap (1950), Quine (1951), Wittgenstein (1969), and Kripke (1972) converge in showing this arrogance to betray a deep mistake. Our beliefs get updated, our concepts evolve; it is to be expected that any non-empirical (conceptual, rational, etc.) sources of justification are directly and thoroughly effected by such epistemic developments and conceptual revolutions.

Next issue: What does this have to do with TVM? First, I will make a weaker point that is, strictly speaking, sufficient for my present dialectical aims. Second, I will

foray a stronger point that offers a compelling answer to the question, left pending at the end of §6, of defining the set of TVM necessities.

The weaker point is simply that, if, as there is considerable reason to believe, the challenge of revisability does not show up as worthless the notion of *a priori* justification – it points to problems with unrefined conceptions of *a priori*, but does little to alter our intuitions about the brute datum – then revisability is also compatible with TVM. Indeed, it is to be expected that the set of statements to which the TVM story about justification applies will vary as do beliefs and the concepts they involve. Therefore, the challenge of revisability does not entail the incoherence or worthlessness of TVM, but rather points to a valuable refinement.

Of course this weaker point will do nothing to sway a committed absolutist or skeptic. If one takes refuge in absolutism about *a priori*, then presumably one will want to make similar claims about TVM, and if one follows the skeptics in thinking that the challenge of revisability sours *a priori*, one will presumably think the same of TVM. However, the TVM-absolutist takes on all of the problems with which the *a priori*-absolutist must contend, and then some (cf. Quine (1951), Bonjour (1998, Ch.2), Casullo (2003, Ch.8)), and the skeptic still has the brute datum to contend with. On balance, then, it seems clear that we are justified in further pursuing TVM-revisionism. So, then, on to the stronger point.

8. which necessary truths are TVM?

My conjecture is that there are three, individually sufficient and jointly exhaustive, conditions for counting as a TVM-necessity. To begin, we must distinguish between

social-conventional reality and mind- and language-independent reality. (Cf. Cassam (2000) for more on this distinction; Cassam relies heavily on the work of Locke and Kant.) Cassam's (2000, 59) examples of social-conventional phenomena include that January has 31 days, and that suicide is the taking of one's life. We enjoy a sort of privileged access to social-conventional phenomena, precisely because what grounds these phenomena, and holds them in place, is our thought and talk. There is no mystery as to how we can have non-empirical justification for these kinds of universal, necessary beliefs about all Januarys, suicides, or bachelors, because we are co-constructors of the data themselves.

In contrast, natural kind terms are the paradigm case of expressions whose content is mind- and language-independent phenomena. To use a term as a natural kind term involves a deferential, Lockian 'I know not what', intention. That is, on most typical uses, terms like 'tiger' or 'water' are used to refer to some mind- and language-independent kind of thing or stuff, the precise criteria of identity for which is typically unbeknownst to speakers who nonetheless count as competent with the term. Non-empirical justification in this case would be an entirely different matter. If a speaker's intention in uttering 'tiger' or 'water' is this natural-kind, deferential, whatever-it-is-exactly-that-constitutes-the-real-essence-of-this, then the speaker does not have the same kind of transparent access to the content of the propositions they are expressing, as they do in the case of social-conventional kinds. So, provided that the term in question is used as a natural kind term, in the above sense, then Kripke's (1972) essence-identifying, *a posteriori*, non-TVM necessities can occur (e.g., 'Gold is the element with atomic number 79').¹⁸

At some point, given that beliefs get updated and concepts evolve, what used to be necessary *a posteriori* may become better suited to the TVM story about justification. Perhaps this will happen to ‘Whales are mammals’—it was thought to be false, then it was thought to be necessary *a posteriori*, and eventually, the fact that one cannot be a whale without being a mammal may very well come to be thought of as a constitutive *a priori* truth. (Perhaps this already has happened. Certainly, I want nothing to do with the idea that there is a precise point at which a shift occurs. After all, revisionists too are repairing our ship while at sea.) In any case, there is reason to think that there can be TVM-necessities beyond the bounds of social-conventional reality, even apart from the more generally conceded cases of logic and mathematics. They are precisely the truths that, although mind- and language-independent, have been bolted down for so long, relatively securely, that they have become ingrained in the content of the relevant concepts.

The three individually sufficient and jointly exhaustive conditions for being a TVM-necessity, then, are: [1] necessary relations among properties that, while they pertain to mind- and language-independent phenomena, they have been so deeply believed for so long that they have become constitutive elements of the conceptual fabric (e.g., cats are animals¹⁹), [2] necessary relations among properties that pertain to social-conventional phenomena, which are straightforward entailments of our conventional categories (e.g., bachelors are unmarried men), and [3] necessary relations among fundamental, elementary mathematical and logical phenomena (e.g., $2+2=4$, If $[[P \text{ or } Q]$ and not-P] then Q). They are ranked in increasing order of resistance to revisability. That is, it would be awfully surprising if it turned out that cats were not animals; it simply

could not turn out that bachelors are married, as I presently use the terms, though words and concepts are prone to evolve over time; it simply could not turn out that $2+2$ fails to yield 4, as I presently use the terms, and in this case I have no grasp whatever on the kind of conceptual revolution it would take for me to reject this belief.

The key point is that there is nothing mysterious about TVM, at least in cases [1] and [2]. Our non-empirical access in the case of [2] is mundane, harmless, scarcely deniable. In the case of [1], hard-won *a posteriori* evidence gradually gets sedimented, until the necessary relation between F and G becomes a part of the concept F. As for [3], maybe it will turn out to be superfluous, reducible to [1] or [2]. At this point, it seems wise not to assume so. (Like everyone else) I am not entirely comfortable with positing [3] as a *sui generis* category whose relations to semantic and empirical knowledge is left unclear, but at the same time I believe that there are insurmountable problems with every attempt to date to assimilate [3] into [1] or [2].

9. conclusion: why retain the TVM?

Some prevalent arguments against TVM do not in fact bear upon its coherence or worth. The notion has not been proven incoherent, and it still may well be our best hope for an adequate, non-obscure solution to the problem of *a priori* knowledge. So, there is good reason to further pursue this account of non-empirical, non-Platonist justification.

It is crucial to see that it is metaphysical necessity, not magic, which explains why candidates for TVM-status are not vulnerable to disconfirmation. Some statements are immune to recalcitrant experiences because of necessary relations among properties; the

particular content of the relevant meaning-conventions explains why a specific statement expresses some such specific relation.²⁰

There are lots of difficult questions about the adequacy of this TVM-account of justification. To mention just one: Bonjour (1998, Ch.2) and Cassam (2000) press the case that the TVM story about justification will ultimately collapse into Platonism anyway, once its adherents are forced to come up with a comprehensive explanation of exactly what is involved in recognizing instances of TVM. If Bonjour and Cassam are right, there comes a point at which the TVM-adherent must appeal to the very sort of rational intuition or ‘mental seeing’ that invites some of the classic obscurity objections to Platonism. One of the tasks attendant upon the TVM-adherents, then, is an explanation of this notion of ‘grasp of meaning’, including especially an account of how it differs from rational intuition.

The reason to retain TVM is that the brute datum is not going away. Given the lack of other viable accounts of our universal, necessary knowledge, this avenue ought to be further explored.²¹

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¹ Cf. Salmon (1986) and Soames (2002) for extensive discussions of a closely related question (i.e., the question of the different epistemic statuses of ‘a=a’ vs. ‘a=b’, on a Millian approach to names).

² Cf. Boghossian (1997), BonJour (1998, Ch.3), Sober and Hylton (2000), and Casullo (2003, Ch.5) for a variety of critical discussions of exactly what Quine’s (1951) arguments establish. The key point for present purposes is that there are those (such as Boghossian and BonJour) who unequivocally reject both TVM and Quine’s position on the analytic/synthetic distinction.

³ I replace Quine’s term ‘sentence’ with ‘statement’. Quine’s dictum plays a central role in Boghossian (1997) and Cassam (2000), for example; I take these works to explicitly illustrate a prevalent presumption that this dictum is an inviolable constraint. Quine’s (1970, 10-12) argument in favor of this dictum runs as follows: The truth-conditions of any statement can be specified “as Tarski taught us” via the schema: ‘S’ is T iff S. The disquoted S on the right hand side of the biconditional stands for a fact, an element of reality; and this is so whether the left-hand quoted ‘S’ expresses a contingency (such as ‘Quine speaks Portuguese’) or a triviality (such as ‘All Portuguese speakers speak Portuguese’). Therefore, no statement is true but reality makes it so. This argument is discussed in §4.

⁴ In particular, I will not defend any historical theses about the relations between the view defended herein and the positivists’ linguistic theory of *a priori* knowledge. Clearly, my conception of TVM includes aspects that most positivists would find objectionable. (For example, it is no part of my view to avoid, or to explain away, commitment to metaphysical necessity.) More generally, in §§7-8, I will disavow certain prevalent associations of TVM. While many would hold that it is precisely those associations which constitute the main philosophical interest in TVM, I will argue that the conception of TVM which remains is not only defensible but substantive. To a large extent, the late-20th-century’s skeptical backlash against TVM is more properly classified as objections to the various metaphysical and meta-philosophical conclusions which the positivists (among others) tried to squeeze out of the notion. (Cf. G. Russell (2007) for further motivation for that latter claim.)

⁵ Two amplifications. First, the fact that [1]-[4] might admit of ambiguity is irrelevant, as I will explain at more length in §§5-6. As long as one disambiguation seems to be immune to counterexample, then we have an instance of what I am calling the ‘brute datum’. Second, what about Kant’s attempt to skirt a middle path between Platonism and empiricism? At the end of the day, the view I defend may well be a

variant of Kant's. (Compare Friedman (2000), who explicitly develops his view as a version of Kantianism.) However, here at the beginning of the day, the problem is essentially that driven home by Frege (1884) and Quine (1951), among others: i.e., Kant relies rather uncritically on an analytic/synthetic distinction that is *at least* in need of much further articulation, and probably ultimately untenable. (For discussion cf. Coffa (1991, Part I).)

⁶ Grice and Strawson (1956) assembled a forceful case in favor of more or less exactly this claim; cf. Fine (1994), Boghossian (1997), Katz (1997), Jackson (2000), and Gertler (2002) for a variety of more recent arguments in its favor. Fodor has tirelessly dissented from this claim – cf., e.g., Fodor (1998) – but Fodor would be the first to admit that his arguments have not been met with much in the way of assent. Cf. *Mind and Language* (vol.15, #s 2-3, 2000, pp. 299-350) for a variety of criticisms of Fodor's dissenting theory.

⁷ Note that something like Quine's (1970, 10) dictum that no statement is true but reality makes it so explicitly plays a role in Armstrong's (1996) case for positing truth-makers.

⁸ Consider, for instance, Hume (1748, Sect. IV, Part 1): "All of the objects of human reason or enquiry may be naturally divided into two kinds, to wit, *Relations of Ideas*, and *Matters of Fact*. Of the first kind are the sciences of Geometry, Algebra, and Arithmetic: and, in short, every affirmation which is either intuitively or demonstratively certain. ... Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe. ... Matters of fact ... are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible...". So, for Hume, as opposed to for Leibniz and Frege as interpreted by Burge (2000), there are non-factual statements.

⁹ Though this does accord with the quote from Hume in note 8, it might run afoul of Kripke (1972) on the contingent *a priori*. In any case, as I explain immediately below, my defense of TVM in no way depends on siding with Hume against Kripke on the contingent *a priori*, because P#1 is false on this second understanding of 'fact' anyway.

¹⁰ Or, to put it the point even more impressionistically, conventionalism is not the view that human agreement determines how things stand in Plato's heaven; it is rather one of the varieties of view which eschews any appeal to Plato's heaven.

¹¹ To be sure, I am not claiming that Quine (1935; 1954) has no weighty objections to conventionalism in the philosophy of logic. Rather, what I am disputing is, first, that the conventionalists espoused Boghossian's straw conception of analyticity, and, second, that one can move, without further argument, from Quine's objections to conventionalism to a persuasive, general case against TVM.

¹² As Kripke (1972, 77) puts it: "One doesn't say 'two plus two equals four' is contingent because people might have spoken a language in which 'two plus two equals four' meant that seven is even." Of course it is intelligible to counterfactually vary linguistic conventions – e.g., suppose 'arthritis' meant something different from what it actually does. The present point is just that this sort of thought experiment is quite different from the more typical kind of modal inquiry, where our interest is in an expression's referent – e.g., suppose water was not transparent. In these latter cases, it is crucial to hold fixed the meanings of 'water', 'transparent', etc. If one fails to distinguish these two kinds of case, as does Quine (1951, 36) in the passage discussed immediately below, then it is trivial to derive the impressive-sounding conclusion that all is contingent.

¹³ Cf. Kripke (1972, 41-53; 1980, 15-20).

¹⁴ Insofar as modal skeptics are also skeptics about meaning, as Quine himself sometimes seems to be, then they are not a party to this discussion anyway – cf. §3. (Note that this option may well be closed off to contemporary naturalists. The reason is that what are currently the most successful research programs in the study of cognition are up to their minds/brains in intentional semantic notions. To dismiss these research programs as wrong-headed is to presume a perspective outside of science from which science can be evaluated. So, a naturalist must respect these research programs, and to do that is to reject meaning-skepticism. Cf. Sober and Hylton (2000) for development of a similar theme.) Insofar as modal skeptics are not meaning-skeptics, then they owe us an account of what, e.g., 'All squares are 4-sided' means, such that the TVM story about justification does not apply to it. (Again, Fodor has long fought the good fight on this one. However, to engage with Fodor's theory of content would be to stray beyond the scope of the present paper.) For what it is worth, Quine (1991) himself has clearly disavowed modal skepticism.

¹⁵ There is a growing body of literature which distinguishes such claims as that *a priori* justification is (i) unrevisable, (ii) indefeasible, (iii) infallible, etc. (Cf. Casullo (2003, especially Ch's 2-3) for a thorough overview.) As I am stipulating these terms, to deny any such claim is to be a modal revisionist; they are above reproach for modal absolutists.

¹⁶ There is a distinct sort of modal revisionism in the literature, which is not exactly the view I develop here. I will call it 'fallibilist-revisionism', as distinct from my favored 'framework-revisionism'. Fallibilist-revisionists think that, just as one can be justified *a posteriori* in believing something that happens to be false, so too one could have a mistaken false belief that is nonetheless justified *a priori*. Proponents include BonJour (1998) and Casullo (2003).

While I do not insist that fallibilist-revisionism and framework-revisionsism are incompatible, my primary interest is in developing a variant of the latter – i.e., TVM-justification is framework-relative, and our conceptual frameworks are more or less constantly under revision; hence, TVM-justification is revisable, but there is a qualified but significant sense in which TVM justification is indefeasible. (In this respect, I line up with Field (2000)—while on the one hand "...to impose no indefeasibility requirement ... removes the main philosophical interest in apriority" (2000, 117), still "... 'relativism' in this weak sense seems to me an eminently attractive position" (2000, 141).)

¹⁷ I will follow the prevalent, though loose, practice of treating 'justified *a priori*' as an epistemic modality. Strictly speaking, the epistemic modalities are rather knowledge vs. belief, epistemic certainty vs. epistemic possibility, etc.

¹⁸ In Sullivan (2003) I give a more thorough account of the notion of deference at work in this paragraph.

¹⁹ Putnam (1962) has argued that it is not necessary that cats are animals, because it is conceivable that we discover that cats are actually cleverly disguised robots from Mars. To the contrary, I think that there is much to be said for the conjecture that 'Cats are animals' is a TVM-necessity. If it is true, then it is necessarily true – i.e., I follow Kripke (1972) in thinking that even if Putnam's scenario is conceivable, that does not entail that it is metaphysically possible. Further, to the extent that being an animal is constitutive of our concept of 'cat', then it is TVM.

The example prompts further refinement. Suppose we concede the conceivability of this scenario; still, as Putnam (1962, 661) points out, intuitions are divided between the following two conclusions:

[i] Wow! It's turned out that cats are not animals after all.

[ii] Wow! It's turned out that there aren't and never were any cats.

One fundamental difference between [i] and [ii] concerns exactly how the term 'cat' is used. [i] involves a deferential (whatever-it-is-exactly-that-constitutes-the-essence-of-this-kind-of-thing) use of the term; whereas [ii] involves a more classical descriptivist (sense-determines-reference) use of the term. As I use the term 'cat', it is a [i]-type, deferential, natural kind term; and so [i] would be the correct conclusion, and [ii] is confused and misleading. To the extent to which someone else uses 'cat' as a [ii]-type, sense-determines-reference, descriptive term, then 'Cats are animals' belongs in category [2], not category [1], as specified immediately below in the text. (Relatedly, going back to a case discussed in §7, this is one crucial difference between my ancestors' use of 'fish' and mine – i.e., my 'fish' is a [i]-type natural kind term; whereas their 'fish' is more of a [ii]-type sense-determines-reference descriptive term.) Category [2] cases are much more immune to recalcitrant experience; for all the externalists' arguments in the book cannot force defeasibility on a stubborn speaker. (On this last point cf. Loar (1991, 120): "Social meanings do not deprive me of semantic autonomy when I insist on it.")

²⁰ As I have set things up here, TVM marks the intersection of *a priority* and necessity. TVM is, first and foremost, a source of *a priori* justification, so all TVM statements are *a priori*. (The question of whether only TVM statements are *a priori* has not been touched on; though if the TVM story works for some *a priori* cases, it is difficult to see why one would want to, or have to, also posit non-TVM *a priorities*.) Since it is necessity which explains why TVM statements are immune to counterexample, then all TVM statements are necessary. Again, though, clearly, not all necessities are TVM.

Some might recoil from the implication that 'I am here now', or indeed anything that Kaplan (1977) counts as a necessary truth in the logic of demonstratives, fails to count as TVM; but I do not see any substantive disagreement here. Clearly, there is something contingent and yet something *a priori* about these cases. However, my interest in this paper is in a source of justification for knowledge of necessities; and so I am content to let these kinds of case fall wherever they happen to land. Of course there are other interesting, worthwhile senses of TVM which would count these cases in.

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