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Apriority and Essential Truth

Abstract: There is a line of thought, neglected in recent philosophy, according to which *a priori* knowable truths such as those of logic and mathematics have their special epistemic status in virtue of a certain tight connection between their meaning and their truth. Historical associations notwithstanding, this view does not mandate any kind of problematic deflationism about meaning, modality or essence. On the contrary, we should be upfront about it being a highly debatable metaphysical idea, while nonetheless insisting that it be given due consideration. From this standpoint, I suggest that the Finean distinction between essence and modality allows us to refine the view. While liberal about meaning, modality and essence, the view is not without bite: it is reasonable to suppose that it is able to ward off philosophical confusions stemming from the undue assimilation of *a priori* to empirical knowledge.

Keywords: the *a priori*, necessity, meaning, essence

What is it about truths, such as those of mathematics, which enable them to be known without recourse to empirical evidence? There is a line of thinking – curiously out of fashion in philosophy today, but still, I think, very much alive in the broader intellectual culture – according to which there is a close connection between the *meaning* of true *a priori* statements and their truth.

There is an overlooked and defensible view along these lines which deserves to be considered. According to this view, what distinguishes *a priori* statements[1] from other true statements is that it is *essential* to them – given what they mean – that they are true. This offers us a way of accounting for the special epistemic status of *a priori* truths in semantic and essentialist terms. Furthermore, it offers us a way of understanding what is special and distinctive about such truths beyond just their special epistemic status; not only do mathematical and other *a priori* statements seem to be special in regards to how they can be known – they also

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1 I will write of '*a priori*' statements, meaning statements which can be known *a priori* to be true.

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seem to be special in and of themselves, different from empirical statements. Or so many have felt.

It may seem that this whole line of thought has been discredited, along with conventionalism about logic and mathematics, conventionalism about modality, failed projects in the foundations of mathematics, and the positivist idea that a meaningful statement is either empirically verifiable or at bottom a matter of convention.[2] In this paper I hope to make a good case that this is not so; whether or not one ultimately agrees with it, this line of thought deserves to be freed from such discredited ideas. Indeed, a great logician saw this already by 1951. In his Gibbs lecture, after criticizing the conventionalism of the logical positivists, Gödel makes the following important concession:

> However, it seems to me that nevertheless one ingredient of this wrong theory of mathematical truth [i. e. conventionalism] is perfectly correct and really discloses the true nature of mathematics. Namely, it is correct that a mathematical proposition says nothing about the physical or psychical reality existing in space and time, because it is true already owing to the meaning of the terms occurring in it, irrespectively of the world of real things. What is wrong, however, is that the meaning of the terms (that is, the concepts they denote) is asserted to be something man-made and consisting merely in semantical conventions. (Gödel (1951/1995), 320.)

As is well known, Gödel was critical of positivism, and had Platonistic, metaphysical tendencies of thought. But he nevertheless held the view that the *a priori* truths of mathematics are 'true already owing to the meaning of the terms occurring' in them, and that this 'discloses the true nature of mathematics'. Perhaps the diverse philosophers who thought things like this, which are currently so unfashionable, were on to something. Or perhaps they were not. Either way, we should not simply throw out the thought along with the problematic deflationary attitudes to meaning, essence and modality taken by many Twentieth Century proponents of the thought. If we do that, we are either throwing out an important insight, or throwing out something which is importantly wrong or confused without understanding *why* it is wrong or confused. It is the object of this paper to prevent such an indiscriminate throwing out by putting on the table a version of the thought which patently does not presuppose deflationary views on meaning, essence and modality, and which arguably has a lot to recommend it.

In the remainder of this introduction I specify a little more carefully the topic and the job which is supposed to be done by the view I am making a plea for. In Section "The Basic Idea" I underline the basic intuitive appeal of this

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2 The *locus classicus* of this sort of view, in the English-speaking world at least, is Ayer (1936). See Creath (2017) for an overview of logical positivism (also known as 'logical empiricism').

kind of view. In Section "Why Essence?" I argue that Fine's (1994) distinction between essential properties and merely necessarily-possessed ones allows us to refine and isolate a formidable version of this sort of view: *a priori* statements are essentially true. In Section "Objections and Replies" I reply to some objections.

Our topic is apriority construed as a property of statements. For a statement to be *a priori* is for it to be knowable *a priori*. And to be knowable *a priori* is to be knowable in a certain way – knowable independently of experience in a certain sense. (You might like to think of the apriority of statements as derivative of the apriority of the way they can be known.) Exactly what it is to be *independent* of experience, and exactly what counts as *experience*, are difficult issues which I will not pursue here. (For further background on the *a priori*, see Jenkins (2008) and Restall (2009).) Here I will just assume that the notion of apriority makes sense and that we have a reasonable working grasp of it. One basic, familiar point worth rehearsing here is that the idea is not that a subject doesn't need any experience of the world at all to come to know an *a priori* truth. For they may have no hope of understanding such a truth without experiences which furnish them with the necessary concepts. Rather, the idea is that *a priori* truths can be known 'independent of experience *beyond that which is needed to acquire the relevant concepts needed to understand those propositions*' (Russell (2014), § 4, emphasis in original).

The version of the line of thought we began with which will be proposed here – as worthy of serious consideration, if not as the ultimate truth – is going to be that *a priori* statements are knowable in their peculiar way because they have the special feature that their truth is essential to them. Note that the task is *not* to define '*a priori*', nor to analyse the concept of apriority, nor to identify the property of apriority with something. Rather, the intended starting point is that we have a reasonable working idea of what apriority is, and we would like to know what it is about *a priori* statements which makes them *a priori*.

I will not try to fill in the view with any particular view about statements and meaning, nor any particular view about how or whether to analyze essence. The view I want to suggest is supposed to be attractive independent of any particular set of theoretical preferences with respect to those topics, and the purpose of this paper is just to get it on the table.

The Basic Idea

Underlying the line of thought I want to develop is the following basic idea: *a priori* statements like those of mathematics do not *impose conditions* on the

world, which the world may meet or fail to meet. They do not *reach out* into the world to get their truth values. They have their truth values off their own bat.

A striking allegorical expression of this idea can be found in Wittgenstein (1974, 455):

> We may imagine a mathematical proposition as a creature which itself knows whether it is true or false (in contrast with propositions of experience).

Since statements (in the relevant sense) are either statement-making sentences together with their meanings, or the meanings themselves, this basic idea leads directly to the idea of a tight connection between meaning and truth on the part of *a priori* statements. In the next section I will argue that the notion of essence is a good candidate for specifying the connection; *a priori* statements are essentially true.

I am not trying to downplay how contentious and difficult to assess the basic idea is. Rather, I am taking it as a starting point that is compelling to many, and proposing a way of capturing it as a formidable philosophical thesis. The resulting view, that *a priori* statements are essentially true, is going to be highly debatable. One of the troubling things about prominent Twentieth Century developments of the basic idea is that they can seem dogmatic, and when espoused by anti-metaphysical philosophers – Ayer (1936) is a paradigmatic example – open to the charge of hypocrisy about metaphysics. Many who held versions of this idea, it would seem, failed to perceive the extent to which it is a metaphysical one. As with many if not all metaphysical ideas, other people may be drawn to an opposite view, and this difference may be very hard to navigate and resolve. I would suggest that failure to be upfront about its debatable, metaphysical status has besmirched the idea, resulting in a lack of attention to it and complacency about the opposite view. Re-presenting it as an unabashedly metaphysical idea may lead to a better assessment of it, and perhaps even a better philosophical understanding of the *a priori*.

Why Essence?

To see what is attractive about an essence-based version of our line of thought, let us first consider the idea that the close connection between *a priori* statements' meaning and truth is modal: that is what special about *a priori* statements is that their meanings necessitate their truth. How might we spell this idea out?

It might seem natural to say that an *a priori* statement has its truth necessarily, except that this runs straight into the existence of the necessary *a posteriori* (widely accepted in light of Kripke (1980)). Some *a posteriori* statements are necessary, so it can't be that what is special about *a priori* statements is simply that they are necessary.

How could we avoid this problem while retaining a modal approach to our line of thought? One way might be to focus on an 'internal' aspect of meaning,[3] and maintain that *a priori* statements are such that this aspect of their meaning necessitates their truth, i. e. that with an *a priori* statement S, it is necessary that any statement whose internal meaning is the same as S's is true. This may then be argued to rule out cases of the necessary *a posteriori*: 'Hesperus is Phosphorus' is true, but in another possible world language users could have a sentence with the same internal meaning – playing the same sort of role in their linguistic and cognitive lives – but which is false. Another approach to avoiding the problem of the necessary *a posteriori*, not requiring the isolation of an internal aspect of meaning, might be to appeal to a modal notion distinct from the notion of necessity in Kripke (1980). *That* notion is subjunctive, or counterfactual – about what could have been the case had things gone differently. But if we use an indicative, actuality-based notion of necessity – about how things actually must be – we may be able to avoid this.[4] (The availability of such a notion, especially one which is conceptually distinct from apriority, may however be controversial.)

These two approaches – staying subjunctive and picking out an internal aspect of meaning, or going indicative – face a common problem: they will count as *a priori* statements which we might hesitate to count as *a priori*. I have in mind statements which will, on these approaches, count as *a priori* for what may be called transcendental reasons. That is, statements whose very instantiation guarantees their truth, such as 'Language exists' (where language is regarded as a spatiotemporal phenomenon) and 'I exist'.[5] Call these 'transcendental statements'. Depending on the details of how you understand apriority – the details, for instance, of how you think about experience and the dependence

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3 E.g. Fregean sense (see Frege (1892)) (or something which is like a Fregean sense, but does not determine reference all by itself), a primary intension (see Chalmers (2006)), role in a system (see Wittgenstein (1974, Part I), Haze (2018)), conceptual role (see Båve (2015)), or a cognitive event type (see Soames (2010)) (or something which is like a Soamesean cognitive event type, but does not determine reference all by itself).

4 In this connection, see Chalmers (1998).

5 These are discussed in Chalmers (2006, § 2.4).

of knowledge or justification thereon – you may think that these transcendental statements aren't *a priori*. Or you might think that they are – but in that case, I submit, you should be prepared to recognise that they are *a priori* in a different way which should not just be lumped together with the way in which more paradigmatically *a priori* statements are *a priori*. And thus a merely modal approach to characterising the tight connection between paradigmatically *a priori* statements' meaning and their truth leaves something to be desired. It either overgenerates (if the transcendental statements aren't *a priori*) or fails to get at the heart of what is special about paradigmatically *a priori* statements, instead only getting at a feature they share with statements like 'Language exists' and 'I exist' which, if they are *a priori*, are so in a peculiar and fairly peripheral way.

This situation, I suggest, should remind us of the problem raised by Fine (1994) for the view that the essential properties of an object are its necessarily-possessed ones. Socrates necessarily belongs to his singleton set {Socrates}, and is necessarily distinct from the Eiffel Tower. But it seems wrong to say that it is part of Socrates's essence – that it is an essential property of Socrates – that he belongs to his singleton, or that he is distinct from the Eiffel Tower. Intuitively, these properties don't have enough to do with Socrates himself to count as essential to him.[6]

The same kind of thing is going on, I suggest, with the difference between (core) *a priori* statements and transcendental statements. The notion of essence gives us what we need to pick out the (core) *a priori* statements and rule out the transcendental ones. What is special about (core) *a priori* statements, and which explains their peculiar epistemic status, is that they are essentially true. That is, the property of truth is essential to them; they are by their very nature true. That, I suggest, is how we should capture in a proper philosophical thesis the feeling that they are "true off their own bat", "carry their truth within them", "do not reach out into the world for their truth", "are creatures which know that they are true", etc. This thesis may of course be incorrect or otherwise in need of critique. But it merits serious consideration.

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6 In addition to arguing forcefully that not all cases of necessarily possessing a property are cases of essentially possessing that property, Fine argued that we should not attempt to explain essence in terms of necessity, and instead go the other way around. The explanation of apriority suggested in the present paper does not depend on this Finean position about proper explanatory order; you could agree that essential property possession isn't merely necessary property possession, while opting, say, for an explanation of essence in terms of necessity plus something else. (Examples of the latter include Cowling (2013), Wildman (2013), and Denby (2014). For an argument against such approaches, see Zylstra (2019).)

Objections and Replies

Objection: Does this idea have teeth? In smoothing the rough edges of the line of thought you began with, haven't you perhaps ended up with something which may sound insightful but is actually trivial?

Reply: To have this worry is to lose sight of the fact that an opposite viewpoint is possible. One may think that, just like empirical statements, true mathematical statements do not, or at least do not in general, have their truth-values essentially – that they in some way must "reach out into the world for their truth". Insofar as it is reasonable to think that much philosophical confusion about mathematical statements and our knowledge of them stems from undue assimilation of them to empirical statements, it is reasonable to think that the view being put forward here has real power to ward off such confusion.

Objection: This talk of essential truth sounds a bit like 'truth in virtue of meaning', i. e. analyticity. Does the view you propose come with a commitment to the controversial – many would say discredited – idea that mathematical truths are analytic?

Reply: The idea that *a priori* statements are essentially true does indeed furnish us with a weak, charitable reading of the claim that mathematical truths are analytic. But concepts of analyticity are available which are narrower in extent, and the view put forward here is compatible with mathematical truths not being analytic in those senses.[7]

Objection: This view fails to explain *how* we have knowledge of mathematics and logic, and is therefore not a satisfactory account of apriority.

Reply: It all depends on what is behind the question 'How do we have knowledge of mathematics and logic?'. If this is asked from a point of view which, by implicitly treating *a priori* statements as being like empirical statements in reaching out into the world for their truth-values, makes the existence of *a priori* knowledge seem puzzling, then the view that *a priori* statements are essentially true can neutralise this puzzlement. However, if what you want is an informative positive explanation of how we get *a priori* knowledge, then I agree that this view will not by itself satisfy you. If such an explanation must be part of what you call 'an account of apriority', then indeed you should not call this view 'an account of apriority'. I suggest that you should nevertheless take the view

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7 Types of narrower concepts of analyticity include: competence-based (roughly, a truth is analytic in this sense if anyone who understands it knows it to be true), Fregean (a truth is analytic in this sense if it is a logical truth or if it can be obtained from a logical truth by substitution of synonyms), and the traditional Kantian conception (a truth is analytic if its predicate is contained in its subject).

seriously as a non-trivial answer to the question of what it is about *a priori* statements that makes them knowable without recourse to experience.

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