

'THERE ARE NECESSARY A POSTERIORI TRUTHS' IMPLIES 'THERE ARE CONCEPTUAL TRUTHS'

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Abstract

My purpose here is to argue that, true, if we want to accept necessary *a posteriori* truths *à la* Kripke, we must accept some conceptual truths. *A posteriori* necessary truths need of conceptual analysis. Moreover, they need of conceptual truths that concern highly abstract philosophical categories, such as: identity, causation, species, material object, substance, and so on.

Keywords

Necessity, *a posteriori*, *a priori*, categories.

1. Frivolity in analytic philosophy

Last month (October), in the *London Review of Books*, Fodor wondered about the task and problems that analytic philosophers are lately concerned with. Consider the following reasoning:

'Water is the stuff that is the Thames and comes out of the taps. The stuff that is the Thames and comes out of the taps undeniably contains impurities (bits that are neither hydrogen nor oxygen nor constituents thereof). So how can water be H₂O?' (Fodor, 2004: 17)

As Fodor goes on saying, "But how could it be not? Is it that, chemistry having discovered the nature of water, philosophy proposes to undiscover it? In any case, could this be the sort of thing that philosophy is about? Is that a way for grown-ups to spend their time?"

I agree that there is something rather comic, and even absurd, in the kind of problems that analytic philosophers are enthusiastically analysing (Is water H₂O? Can Mr and Mrs Truman be Queen Elisabeth's parents?) since it was believed that Kripke had announced a third realm of metaphysical necessities, full of water, tigers and gold to which philosophers would access by modal intuition - thus, without stumbling on Quine's attack against analytic truths that had, until Quine, headed the defence of analysis as the privileged and, in fact, unique mode of Philosophy. Moreover, Fodor seems to argue that modal intuitions are, after all, conceptual intuitions. So not much has been gained, and analytic philosophy is, at best, as it was before Kripke.

My purpose here is to argue that, true, if we want to accept necessary *a posteriori* truths *à la* Kripke, we must accept some conceptual truths. *A posteriori* necessary truths need of conceptual

analysis. This may seem, and probably is, a poor defence of conceptual analysis. After all, why should we be willing to accept *a posteriori* necessity? Not, I hope, that it should be of philosophical interest that marmalade has, of necessity, such and such, culinary composition. Or water. Or soya milk. I will try to argue, then, not only that necessary *a posteriori* truths need of conceptual truths, but that the latter concern highly abstract philosophical categories, such as: identity, causation, species, material object, substance, and so on.

2. The structure

First, I will use some of the too well-known Kripkean cases of *a posteriori* necessity to show that the necessity of any necessary *a posteriori* truth is inherited from some necessary *a priori* truth. Actually, Kripke wrote something very similar to this, even if in actual discussions on his theses this idea, as well as its consequences, has usually been ignored.

Second, I will consider an argument by Kitcher against the idea that necessity can only be justified *a priori*. In the course of the discussion of his argument, it will emerge a minimal conception of apriority that will help to argue that:

Third, the necessity of *a priori* truths that can guarantee the necessity of their *a posteriori* tokens rests, in turn, on conceptual truths concerning philosophical categories. I will try to show this with the help of some fantastic cases.

Forth, and finally, I will make some general considerations on some precise problems.

3. Two too well-known Kripkean cases

It is a fact, expressly accepted by Kripke, that every case of necessity *a posteriori* should be sanctioned *a priori*. At the end of *Naming and Necessity* he wrote:

All the cases of necessary *a posteriori* advocated in the text have the special character attributed to mathematical statements: *Philosophical analysis* tells us that they cannot be contingently true, so any empirical knowledge of their truth is automatically empirical knowledge that they are necessary. This characterization applies, in particular, to the cases of identity statements and of essence. It may give a clue to a general characterization of *a posteriori* knowledge of necessary truths. (My italics) (Kripke 1980: 159)

If this is not enough, here it goes some “empirical evidence”:

First, consider *identity*. Kripke (1971: 67) thought he had proven identity necessary, given the principle of indiscernibility of identicals:

- (1) $(x) (y) ((x = y) \rightarrow ((P(x) \rightarrow P(y)))$
- (2) $(x) L (x = x)$
- (3) $(x) (y) ((x = y) \rightarrow (L (x = x) \rightarrow L (x = y)))$
- (4) $(x) (y) (x = y) \rightarrow L (x = y)$

Now, one can deny (2), or Kripke's reading of (2), blocking the inference from (1) to (3). Against other interpretations of identity as a metalinguistic relation, between names, or as relation between senses, or a relation between *nothing*, identity, says Kripke, is relation between any object and itself. If we accept this, then jumping to the conclusion that identity is necessary is not that jump. For, given that an object is itself, if it is at all, it is quite obvious that it could not be not-itself. The, wrong, belief that it could have been not-itself, argues Kripke, is somehow based on the identification of the object itself with our epistemological access, through its properties or true descriptions, to it. It could be true that every description we have of an object could have been false of it. But this cannot mean that the object would not have existed or would have been other object. Moreover, we do have direct access to the object. We do have rigid designators that directly, and

not through descriptions, or properties, or senses, signify an object. So any sentences in which the symbol for identity is flanked by two rigid designators of the same object will be necessarily true.

And then, given the principle of indiscernibility of identicals plus identity as a relation between objects, Kripke thought he could easily demonstrate that identity is a necessary relation between any object and itself. And it is *only because* we can justify a priori that identity is necessary, that we can say that it is necessary that, say, Hesperus is Phosphorus when we discover empirically that Hesperus is Phosphorus. We know *a posteriori* that Hesperus is Phosphorus. That it is necessarily so is, on the other hand, the consequence of a more general premise stating *a priori* that identity is necessary.

Philosophical analysis gives us that: (i) Identity statements, if true, are necessarily true (*a priori*). So, once determined that (ii) 'Hesperus is Phosphorus' is an identity statement (*a priori*), we get that: (iii) If it is true that 'Hesperus is Phosphorus' then it is necessarily true that 'Hesperus is Phosphorus' (*a posteriori*). And then, if we learn that: (iv) 'Hesperus is Phosphorus' is true (*a posteriori*), we can conclude that: (v) 'Hesperus is Phosphorus' is necessarily true. So the necessity in (v) is inherited from the necessity in (iii) which, in turn, is the consequence of the analysis of identity in (i). In any case, necessity is justified *a priori*. Here it is another example, *the necessity of the material origin*:

[I]f *P* is the statement that the lectern is not made of ice, one knows by *a priori* philosophical analysis, some conditional of the form 'if *P*, then necessarily *P*'. If the table is not made of ice, it is necessarily not made of ice. On the other hand, then, we know by empirical investigation that *P*, the antecedent of the conditional, is true — that this table is not made of ice. We can conclude by *modus ponens*:

$P \rightarrow LP$	[<i>a priori</i>]
P	[<i>a posteriori</i>]
LP	[<i>a posteriori</i>]

The conclusion — *LP* — is that it is necessary that the table is not made of ice, and this conclusion is known *a posteriori*, since one of the premises on which it is based is *a posteriori*. (Kripke 1971: 88)

Kripke thought to have proven *a priori*, given the necessity of diversity, that: "If a material object has its origin from a certain hunk of matter, it could not have had its origin in any other matter" (1980: 114, n 56). His argument would be something like this. 'A' is a rigid designator of a piece of wood; 'B' is a rigid designator of a table; 'C' is a rigid designator of another piece of wood; and 'D' is a rigid designator of another table; B is made of A at *t*; D is made of C at *t*. Now, let *P* be the property 'being made of A at *t*' we have:

(x) (y) (x ≠ y) → L (x ≠ y)
 (x) (y) ((x = y) → (Px → Py))
 (x) (y) ((Px ∧ ¬Py) → (x ≠ y))
 (Pb ∧ ¬Pd) → L (b ≠ d)

So we know *a priori* that the constitutive material is essential to the constructed entity. So we can learn *a posteriori* that necessarily a table is not made of ice, when we discover empirically that it is made of wood - and not of ice.

En general, I think one can affirm that all *Naming and Necessity* is the attempt to argue for a thesis on identity, on it's *a priori* "proven" necessity, and on the consequences of this: that there are essences, that material composition is essential or, very specially, that Cartesian mind-body dualism is true.

I am not saying that Kripkean theses are correct. I am saying that Kripke always believed and sheltered under the idea that we can know necessary *a posteriori* truths because we know necessary *a priori* ones whose necessity is a necessary condition for knowledge of the correspondent empirical truths as necessary. In a word, each time we claim to have discovered a necessary a posteriori truth, we have an instance of the following general scheme:

(i) Propositions of kind K, if true, are necessarily true	<i>a priori</i>
(ii) Proposition p (which is of kind K) is true	<i>a posteriori</i>
.....	
(iii) p is necessarily true	<i>a posteriori</i>

This schema, if correct, implies that knowledge *that* a proposition is necessary must be *a priori* knowledge. Knowledge *of* a necessary proposition can be *a posteriori*. But that it is necessary can only be known *a priori*.

4. Necessity can only be guaranteed a priori

Empiricists and rationalists become allied when it comes to the point of recognizing that experience, source and warrant of *a posteriori* knowledge, cannot justify necessity. Experience tells us what the case is, but it can never tell what the case must be. Necessity, if there is any, must be granted *a priori*.

Besides the general acceptance of these ideas, it is usually believed that Kripke questioned them. I hope I have shown that this is not the case, but the opposite. The only *explicit* argument I know - although there must others - against the thesis that necessity can only be guaranteed *a priori* is the following of Kitcher:

Let us suppose that primary modal knowledge is obtained by some clearly non-perceptual process such as abstract reflection or experimentation in imagination. It does not follow that primary modal knowledge is *a priori*. (Kitcher 1980a: 101)

Apparently, then, Kitcher believes that there is no reason why mental experiments and abstract reflection should only be a priori warrants of belief. Modal knowledge, he claims, could also be *a posteriori* because:

[T]he fact that a process is non-perceptual does not rule out the possibility that the ability of that process to warrant belief might be undermined by radically disruptive experiences. I can imagine experiences which would convince me that my own efforts at experimentation in imagination (for example) were an extremely unreliable guide to anything at all. (Kitcher 1980a: 101)

Or again:

[C]ertain kinds of thought-experiments may generate items of knowledge given a particular type of experience, but may not be able to sustain that knowledge against misleading experiences. (Kitcher 1980b: 20)

At least part of Kitcher's reasoning against the idea that necessity must be guaranteed *a priori* could be summarized as follows:

- (1) Mental experiments and abstract reflection are sources of modal or necessary knowledge.
- (2) Possible experience could question thought experiments and abstract reflection.
- (3) So modal knowledge can be *a posteriori* (i.e., be dependent of empirical sources).

Kitcher wants to conclude that knowledge that a proposition is necessary can be *a posteriori* knowledge. And his reason for this conclusion is that thought experiments and abstract reflection (which we usually take as reliable guides to modality) could fail a possible empirical test. However, this reasoning is not conclusive. (3) does not follow from (1) and (2).

Let's accept that possible experience can prove false a modal hypothesis. We can still maintain that it is impossible that it proves true a modal one. We can imagine that possible experience falsifies a necessity statement, so we could know *a posteriori* that a given proposition is *not* necessarily true. But it does not follow from here that experience can ever verify a necessary proposition. It does follow from (1) and (2) that *a priori* methods are fallible: they could lead to contingent conclusions, or to false conclusions. And we would have *a priori* but contingent knowledge, or *a priori* but false belief. But it does not follow from here that knowledge that a proposition is necessary can be *a posteriori*.

But surely, Kitcher wants to say more than (2). He does not only want to maintain that possible experience could falsify our modal hypothesis. He wants to maintain that our modal intuitions can be experience dependent. This, however, has not been demonstrated. Because, for this purpose, it is not enough to argue that the *content* of our modal propositions could have been different. It is clear from the beginning that we can *imagine* worlds in which water is not H₂O. But this does not suffice for possibility of these worlds. What Kitcher has to argue is that *knowledge of the possibility* that, say, water is not H₂O (when it is the actual case that water is H₂O) can be empirically justified. It does not help that we conceive situations in which water is not H₂O. Experience provides the content of the statement, but it can never provide knowledge of its necessity.

This is what Kripke saw and told us. Imagination, what we can conceive, does not prove possibility, nor does it limit necessity. We can conceive that Goldbach conjecture is false, and we can conceive that it is true. We can conceive empirical situations that would prove that Doña Letizia's parents are my parents. We can conceive empirical situations that would prove that Nixon is not a human being, but a robot. In any case, what we must accept is that if any of these situations is the case, it is necessarily the case. Because we have demonstrated *a priori* (or, at least, we can accept that Kripke did) that mathematical propositions, or propositions denying humanity of non-human beings, or propositions about the origin of people, are necessary, if true. What, maybe, we do not know a priori are the propositions themselves.¹

5. Some general considerations on the a priori

At the very beginning of his *Critique of Pure Reason* Kant wrote that a priori knowledge is "knowledge absolutely independent of all experience" (B3). I take it to be a compatible even a good interpretation of Kant's intention, the claim that *a priori* propositions are those propositions that *could* be justified without experience. The modality and the idea of justification that appear in this conception of the *a priori* are important:

(i) The modality points to the idea that: to determine that a proposition is *a priori*, the particular *processes* or methods of a particular cognoscent are not as relevant as his cognitive *capacities*. *A priori* is not what is actually known *a priori*, but what is knowable *a priori*. This means that, for instance, mathematical truths are *a priori*, even if they are not known or even if they have not been proven, insofar as they could be proven a priori by any agent with human standard cognitive capacities.

(ii) Also, to speak of cognitive capacities implies that apriority is indexed. As Kitcher says:

When we consider the status of a particular type of process as an a priori warrant, the existence of worlds in which extra faculties come into play is entirely irrelevant. Our investigation focuses on the question of whether a particular type of process would be available to a person [or cognitive device] with the kinds of faculties that people actually have, not on whether

¹ Of course, we do know that Doña Letizia's parents are not my parents but hers, and that Nixon is not a robot but a human being. So we know that it is impossible that Doña Letizia's parents are my parents, and we know that it is impossible that Nixon is a robot.

such processes would be available to creatures whose capacities for acquiring knowledge are augmented or diminished. (Kitcher 1980b: 13)

For us - although, as we saw before, not for Kitcher - this makes *a priori* any proposition that any cognitive device with actual human capacities might know as true "without the aid of experience".

(iii) What does it mean "without the aid of experience"? It seems clear that *a priori* acolytes are not necessarily innatists. So the idea is that, for knowledge of a proposition to be *a priori*, what counts is that its justification method is *a priori*. For instance, one might come to know *a posteriori* the concept *triangle*. But, once (s)he understands what a triangle is, (s)he knows *a priori* that every triangle has three angles - even if there are no triangles in the world. Or maybe one could come to know *a posteriori* the rules of propositional logic. But, once (s)he understands, or once he knows how to use, them, (s)he knows *a priori* that if p is true, then $p \vee q$ is also true. It is at this second step, at the step of understanding and/or knowing how to use rules or concepts, that we see why a priori knowledge is that which is independent of any experience. For once we know the meaning of triangle, or the rules that govern the deduction of $p \vee q$ from p , the justification of the truth of the proposition that every triangle has three angles or the justification of the truth of the proposition that "if p then $p \vee q$ ", is wholly independent of what we could come to know empirically about our world.

One could add that this comprehension or understanding can only be *conceptual*. One would then meet Tyler Burge's (1993) view that all a priori knowledge, including logic and mathematical knowledge, is founded on conceptual understanding.² It is not clear to me that *all a priori* knowledge can be conceptually justified. In particular, it is not easy to see that knowing how to use rules, which is what seems to sustain logic or mathematical knowledge, is conceptual knowledge. What seems to be true is that "the issue over apriority begins with (...) understanding and asks whether perceptual experience is needed to supplement the understanding for one to be justified or entitled to one's belief" (Burge 1993: 479). A proposition is *a priori* if, once it has been understood, empirical knowledge of the world becomes indifferent for its justification.

6. The main thesis

There are three kinds of propositions that are usually taken to be *a priori*: (i) mathematical truths, (ii) logical truths, and (iii) so-called conceptual truths. Among the later, we could mention the following controversial examples:

- (1) If a is bigger than b , then b is smaller than a
 - (2) All philosophers are human beings
 - (3) If something is red, then it is extended
 - (4) If something is one meter long, then it has some length
- ... and so on.

In case we accepted these propositions as *a priori*, we would do it for conceptual reasons. Consider (3), for instance. If we wanted to argue that (3) is justified *a priori*, most surely, we would say something like: the correct predication of red needs as its subject a material object, and to understand the concept of *material object* is to know that every material object occupies an space. That is, there is conceptual or meaning relation between *having a colour* and *being extended*. Again, I must say that I do not pretend that (1)-(4) are true - least that they are necessary. I do want to argue, however, that:

² An interesting defence that analyticity can help explain how we can have *a priori* knowledge, including logic and mathematical knowledge, can be found in Boghossian (1996).

Thesis: For the case of necessary *a posteriori* propositions, *a priori* propositions from which they can inherit their knowledge or justification as necessary, must be *a priori* propositions that are necessary because they express, as a result of conceptual analysis, the supposed necessity that some philosophical categories hide.

The reasoning that leads to this thesis is as follows. The known-as-necessary proposition is *a posteriori*. So this proposition has to be informative about the world, that is, its discovery or justification as a true proposition can only be empirical. But, what could justify its necessity? If what I have written until now is correct, its necessity can only be justified *a priori*. But, then, given the empirical character of the proposition, the necessary *a priori* proposition from which it inherits its necessity cannot be of a logical or mathematical type: it must contain general concepts or categories, with empirical instances, whose analysis reveals some metaphysical necessity.

Again. If *a posteriori* propositions can be known as necessary, there must be some conceptual truth that guarantees the Kripkean reasoning:

- | | |
|---|---------------------|
| (i) Propositions of kind K, if true, are necessarily true | <i>a priori</i> |
| (ii) Proposition p (which is of kind K) is true | <i>a posteriori</i> |
| | |
| (iii) p is necessarily true | <i>a posteriori</i> |

Our problem, then, is to get (i) so that we can apply this scheme to obtain tokens of (iii). So, what could guarantee that certain kinds of propositions with empirical instances, if true, are necessarily true? It seems that a good answer is:

First, propositions of kind K that, if true, are necessarily true can be identified (as being of kind K) taking into account some philosophical category. *Philosophical categories* are, obviously, the categories that philosophers study and analyse since the very beginning of Philosophy: *identity, existence, causality, truth, property, relation, substance, species, number, proposition, time, concept* and so on and on.

Second, *p* is obviously an empirical proposition. So the category that helps to identify *p* as belonging to kind K must have empirical instances.

And, third, given that our aim is to obtain necessary *a posteriori* truths, the analysis of the category that helps in the identification of *p* as a kind of proposition, must reveal some sort of *metaphysical necessity*.

7. Some fictional examples

How could it be the case that categorial analysis justify *a priori* the necessity of necessary *a posteriori* truths? Consider *any a posteriori* proposition, for instance:

- (1) If you touch the hot wire, you will be burn
 - (2) My cat mews
 - (3) Water is H₂O
 - (4) Schwarzenegger does not travel backwards in time and destroy the embryo of a future rebel leader
 - (5) The Queen of England is not the daughter of Mr. and Mrs. Truman
- ... etc.

Suppose that these propositions are (metaphysically) necessary *a posteriori* truths. To know that they are true we must obviously attend to the way things are in our world. But, what could justify that they are necessary? That they are instances of kinds of propositions such that we can know *a priori* that, if they are true, they are necessarily true. That is, they are propositions regarding some philosophical category whose analysis reveals some sort of metaphysical modality.

For instance, (1) states- let's say - that there is a causal relation holding between your action

of touching the wire and the consequent burning. For (1) to be known as necessary, there should be some *a priori* philosophical reasoning that leads to the conclusion that causal statements are necessarily true: say, the old rationalist thesis that the *concept of causation* is such that if the cause occurs, its effect cannot but happen too. Given this analysis of causation, we would have that:

- (i) Propositions that assert the occurrence of the effect given its cause, if true, are necessarily true (*a priori*)
- (ii) 'If you touch a hot wire, you burn yourself' is a proposition of this kind.
- (iii) 'If you touch a hot wire, you burn yourself' if true, it is necessarily true (*a priori*)
- (iv) 'If you touch a hot wire, you burn yourself' is true (*a posteriori*)
- (v) 'If you touch a hot wire, you burn yourself' is necessarily true (*a posteriori*)

(2) is an *a posteriori* proposition such that a language (the language of cats) is said of a cat. To know that (2) is necessarily true we should know *a priori* that propositions that predicate their language of a animal species are necessary, say, that the concept of (animal) species is such that appropriate language is essential for a given animal to belong to the species that it actually does.

(3) seems to be an identity proposition. So, to know that (3) is necessary we should know *a priori* that identity propositions are true, say, that the concept of identity is such that every entity is necessarily identical to itself.

(4) is an *a posteriori* proposition concerning the direction of time and time travel. To know that (4) is a necessary proposition, we should know *a priori* that certain characteristics of time are essential, say, that the concept of time is such that its direction cannot be reversed by any time traveller and that, consequently, time travel is impossible. (4), let's suppose, is empirically true. So (4) is necessarily and *a posteriori* true.

(5) is a proposition that concerns the genetic structure of human beings. To be able to determine that (5) is necessary, we should know *a priori*, say, that genetic structure is essential to all sorts of animals. If this is so, it is impossible that a given human being has other biological parents than his. So (5), when it is known *a posteriori*, is automatically known as necessary.

Let's be serious. Can we accept any of these propositions as necessary? Probably not. Maybe nobody has demonstrated, or can ever demonstrate, any of the fantastic analysis I have just proposed. But what seems to be undeniable is that nobody is ever going to demonstrate that necessarily water is H₂O attending to the ordinary meaning of *water*. And we cannot forget that Twin Earth thought experiment produces contrary results - so XYZ is/could be water, after all. If we want to argue that necessarily water is H₂O, we will have to argue for this necessity in some serious philosophical way: for instance, as Kripke did, arguing that an entity and its chemical composition is the same thing and that, consequently, 'water' and 'H₂O' are two rigid designators of the same entity.

Only through the analysis of philosophical categories, not the concepts of *water* or *wire*, can it be, if it can be, maintained that any of the previous propositions are metaphysically necessary. Only if in the analysis of any of the categories involved it is found some modal implications for the correct employment of the category, can our determination be accomplished.

8. Some final considerations

On conventionalism. Against what Sidelle (1989) has claimed, that the necessity that a concept involves can be found or argued *a priori* does not mean that metaphysical necessity is a by-product of linguistic conventions. In the first place, it is difficult to see how mere conventions could give rise to facts - least necessary facts. But also, there is nothing in the idea of a concept involving some sort of necessity that leads to the idea that it does so by convention.

On analyticity. Is it analytically true, if true at all, that the concept of causation hides a necessary connection between the alleged cause and its effect, that the concept of (animal) species is such that appropriate language is essential for species membership, that the concept of identity is such that

necessarily every entity is identical to itself, that the concept of time is such that its direction cannot be reversed, or that the concept of existence is such that every entity could have not existed? Probably not. Probably Quine was right, and there is no such thing as analytic truths. But I do not think I have been considering truths that are necessary *because* they are analytically true. *A priori* investigation in terms of philosophical analysis of meaning could lead to recognising that the use of some categories need of metaphysical modality: no idea of synonymy or definition seem to be involved here.

On the change of meaning. Bealer (2002) has claimed that certain philosophical categories: predication, number, identity, property, relation, quantity, and so on are *semantically stable*. This means that they do not vary across communities whose epistemic situations are qualitatively indiscernible. I find this idea of stable semantics specially useful for philosophical issues. Philosophers are those beings that study semantically stable categories. This is why Plato and Aristotle are still old friends, why we still discuss their categories, their metaphysical classification of what there is, and why philosophical analysis is continuous with our empirical knowledge of the world.

9. An ending note

Fodor finishes his paper claiming that, contrary to water, our modal intuitions on Coke and smog tell us that their actual composition is not essential: Coke people could change its formula and it would still be Coke, and we could invent new ways of polluting the Earth without employing CO₂. It would be ironic that analytic philosophers started another thirty-year discussion on the chemical composition of Coke.

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