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## ON CATEGORIES AND A POSTERIORI NECESSITY: A PHENOMENOLOGICAL ECHO

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**Abstract:** This article argues for two related theses. First, it defends a general thesis: any kind of necessity, including metaphysical necessity, can only be known a priori. Second, however, it also argues that the sort of a priori involved in modal metaphysical knowledge is not related to imagination or any sort of so-called epistemic possibility. Imagination is neither a proof of possibility nor a limit to necessity. Rather, modal metaphysical knowledge is built on *intuition of philosophical categories* and the structures they form.

Keywords: a priori, categories, intuition, metaphysical necessity.

Fantasy abandoned by reason produces impossible monsters.

—Francisco de Goya (1746–1828), *The Caprices*, plate 43, *The Sleep of Reason Produces Monsters* 

#### 1. Introduction

Statements of fact are necessarily true when their truth-maker facts cannot but be the case. Statements of fact are contingently true when their truth-maker facts might not have been the case. I shall argue that *modal knowledge*, that is, knowledge that a (true/false) statement is necessarily/contingently true, must be a priori knowledge, even if knowledge that the statement is true or false can be a posteriori. In particular, justified acceptance of necessary facts requires a priori modal insight concerning some category which they instantiate.

In this introduction, the first part of the article, I maintain that Kripke claimed that the *knowledge that a statement has its truth-value as a matter of necessity/contingency* is a priori founded—even when knowledge of its truth/falsehood is a posteriori. In the second part (sections 2–6), I claim that a priori intuition on categories is necessary for modal knowledge. Modal knowledge is a priori not in the sense that it depends on conceivability or the imagining of possible cases but in the sense that it requires categorical intuition. The philosophical study of metaphysical

necessity rests upon the study of highly abstract categories given in intuition, whose sense is to be found in the language and history of philosophy, and not in ordinary or even scientific language. This, as we will see in the article, goes against the most common and recent accounts of the relation between metaphysics and the epistemology of modality. In the last section, I argue by example and propose the case of necessity in singular causation to support these ideas and elicit the corresponding intuitions.

Kripke maintained that knowledge that a (true/false) statement is necessary/contingent should be sanctioned a priori, even when knowledge of its truth-value is a posteriori. At the end of Naming and Necessity he wrote: "All the cases of the 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" (Kripke 1980, 159). In all the cases of necessary a posteriori truths considered by Kripke, knowledge of their necessity is a priori: philosophical investigation tells us that they are necessarily true, even when their truth is known a posteriori. Knowledge of truth and modal knowledge must be distinguished, and the latter can only be attained in an a priori manner. A priori philosophical investigation into the nature of mathematics and mathematical reasoning resolves its necessity—and this is so irrespective of whether the truth/falsity of particular mathematical statements (say, Fermat's theorem) is known a priori or a posteriori. A priori philosophical investigation into the nature of identity resolves its necessity—and this is so irrespective of whether the truth/ falsity of particular statements of identity (say, that Hesperus is Phosphorus) is known a priori or a posteriori. A priori philosophical investigation into the relation between genus and species resolves its necessity—and this is so irrespective of whether the truth/falsity of particular statements predicating the belonging of a given species to a genus (say, that cats are demons) is known a priori or a posteriori. Perhaps we could add: a priori philosophical investigation into the nature of natural laws resolves their necessity—even if only physics can tell us which statements are in fact exemplars of a natural law, and so on.

Thus, what Kripke had in mind when he relied on philosophical analysis to acquire knowledge of the modal status of true (or false) statements could have been something like this:

- (P) True statements of kind K are necessarily true. [a priori]
- (i) If p (of kind K) is true, then p is necessarily true. [a priori]

(ii) p is true. [a posteriori] So, (iii) p is necessarily true. [a posteriori]<sup>1</sup>

Kripke explicitly endorses (i)–(iii). (P) is what he might have had in mind as support for (i). Of course, identity is one of the Ks in the scheme: "Certain statements—and the identity statement is a paradigm of such a statement on my view—if true at all must be necessarily true. One does know *a priori*, by philosophical analysis, that *if* such an identity statement is true it is necessarily true" (Kripke 1980, 109). For Kripke, the "ontological law" that necessarily everything is self-identical is an a priori truth. We know a priori, not by empirical investigation, but by philosophical investigation alone, that identity is a relation that necessarily holds between any object and itself. Given this a priori knowledge, we know that any true identity statement, say, "Latvia is Letonia," is necessarily true. You could discover empirically that Latvia is Letonia, and thereby empirically discover a necessary fact. You would discover a posteriori a necessary fact, but knowledge of its necessity requires, and follows from, the general thesis that identity is a necessary metaphysical reflexive relation in which any entity stands, and this thesis is a priori. So knowledge of necessity, even when necessity is in the world, pertains not to experience but to the *framework* of experience; the framework where identity, but not Latvia, pertains.

Against other analyses of identity as a metalinguistic relation (between names), as a relation between senses, or as no relation at all, Kripke says that identity is a metaphysical relation. Identity, then, is necessary because it is impossible that any object, any entity, is other than itself: necessarily, every entity is itself. Many, or most, true descriptions of an entity could have been false descriptions of it. Most of its properties might not have belonged to it; but none of that implies that the entity could have been another entity. No entity can be another. As a consequence (given rigid designators that directly refer to things in the world), any statement in which the sign of identity is flanked by two rigid designators of the same entity will be necessarily true.<sup>2</sup>

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<sup>1</sup> I intend this schema to be equivalent to:

(P*) If facts of kind K are the case, they are necessarily the case. [a priori]

(i*) If p (of kind K) is the case, then p is necessarily the case. [a priori]
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<sup>(</sup>ii\*) p is the case. [a posteriori] So, (iii\*) p is necessarily the case. [a posteriori]

I also take this to be in the Kripkean spirit.

<sup>&</sup>lt;sup>2</sup> It is important to realize that this line of reasoning does not run from the idea of rigid designator to the necessity of identity, it runs in the opposite direction. Identity is first. Certainly, a rigid designator refers to the same individual in every world in which it refers to anything, so any true identity statement with two rigid designators will be necessarily true. But this *follows* from the metaphysical thesis that it is impossible that any entity is other than itself.

The same schema applies to the case of necessity of material origin. Kripke says he can offer something like an a priori proof for the principle that "if a material object has its origin from a certain chunk of matter, it could have not had its origin in any other matter" (1980, 114 n.). He does not really offer the proof but does claim that only because we know a priori that original material constitution is necessary for certain kinds (material objects) we can discover a posteriori some properties of them that are necessary. Thus, when we discover a posteriori that a particular table is made not of ice but of wood, we discover empirically a necessary property of the table—which is not to say that we discover empirically that the property is necessary:

[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*:

(i) $P \rightarrow LP$	[a priori]
(ii) P	[a posteriori]
(iii) LP	[a posteriori]

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 1997, 88)

Because we know a posteriori the fact that the table is not made of ice, we know a posteriori the necessary fact that the table is not made of ice; but we do not know a posteriori the necessity of this fact. Knowledge of the necessity in (iii) fully depends on knowledge of the necessity in (i); and (i) is true because we know a priori that material objects are necessarily made of the matter they are originally made of. Material origin is, in this sense, one of the Ks in the above schema.

The last Kripkean example I wish to mention in favour of the schema concerns the necessary relation between species and genera: "Cats are animals' has turned out to be a necessary truth. Indeed of many such statements, especially those subsuming one species under another, we know a priori that, if they are true at all, they are necessarily true" (Kripke 1980, 138). We know a priori that a species necessarily belongs to its genus. So when we learn, empirically, that cats are not demons, we learn empirically a necessary truth; but our knowledge of the modality of this truth rests upon a priori knowledge of the membership relation that necessarily holds between any species and its genus. That is why we can learn empirically the necessary fact that crystals are liquids. The statement "Crystals are liquids" belongs to a certain kind of statement, those that

predicate a genus of its species; and these statements are such that, if they are true, they are necessarily true.

Kripke fostered the idea that we can truly call some fact in the world necessary because philosophical a priori investigation reveals the modality concealed by metaphysical categories (identity, origin, species, and so on). The modality in question is discovered a priori, and it allows us to infer that the facts instantiating the categories are necessary. Although knowledge of a (necessary) fact is a posteriori, knowledge of the necessity of the fact is a priori. But Kripke never really offered an account of the type of a priori that supports modal knowledge. (It is usually held that, for Kripke, exercises of imagination constitute our route to possible worlds; possible worlds that give the semantic truth conditions for modal sentences. I think this is incorrect.) In the next section I offer what I take to be an answer to this problem. I maintain that modal knowledge is intuitive knowledge within the framework, or the limit, of experience. At any rate, it is in no sense provoked by the workings of the imagination.

## 2. The Empiricist-Rationalist Agreement

Rationalists and empiricists agree when it comes to acknowledging that, even if experience is the source and warranty of the truth and content of statements of fact, experience cannot justify their necessity. Experience reveals the case, but it never reveals the necessity of the case. Necessity, if there is any, must be revealed a priori.

However, problems lie ahead: the a priori is susceptible to modal error. As Putnam noticed, despite the necessary fact that, say, water is  $H_2O$ , "I can perfectly well imagine having experiences that would convince me (and would make it rational to believe) that water is not  $H_2O$ " (Putnam 1979, 233). We have illusions of possibility where there is none: we can imagine that water is not  $H_2O$  despite (let us accept) it not being possible that this is the case. We also have illusions of necessity where there is none: we can conceive that one metre is necessarily the length at time t of a given bar in Paris, despite the fact that the length of the bar

<sup>&</sup>lt;sup>3</sup> Obviously, the necessity of the fact does not depend on the knowledge of the fact. If facts are necessary, they are necessary whether we know them or not, and whether we know them to be necessary or not.

<sup>&</sup>lt;sup>4</sup> I agree with McGinn when he writes (1981, 161) that there is a tension in maintaining both that postulated possible worlds give the truth conditions of modal sentences and that modal sentences have objective truth conditions. McGinn's reasonable claim is that Kripke accepts that truth conditions for modal sentences are determined *prior to*, and *independently of*, the imaginative construction of possible worlds. I develop this idea in the text.

could have been other than one metre at t. The a priori is a potential source of modal error.

In this section I want to argue that the possibility of modal error is not in conflict with the basic empiricist-rationalist agreement. Cases of modal error show that *conceivability* is not a secure path in the modal realm. (I can imagine that the queen has other parents. I can imagine that Nixon is a robot. I can conceive that Goldbach's conjecture is true and can conceive that it is false. I can conceive all these situations despite the fact that they are—let us accept—impossible. They *look* possible but are not. They are conceivable but impossible. I think that there is a consistent reading of Kripke according to which conceivability and metaphysical possibility are separable.)<sup>5</sup> However, even if conceivability and possibility are separable, there might still be other forms of the a priori that could guarantee our knowledge of metaphysical modality. It is just that those forms differ from the exercise of imagination. Surprisingly, this is not the common conclusion.

## 3. Bi-dimensionalism, or the Counterfeit View

Since Putnam, the a priori has mostly been directly related with what has been called epistemic possibility. Epistemic possibility is a type of possibility strongly rooted in the powers of imagination. Roughly, p is epistemically possible if it is conceivable that p is true. Or p is epistemically possible if p is verified by a consistent imaginary situation (see, e.g., Yablo 1993, 23). In what could be considered an additional complication, attempts have recently been made to regain (a new version of) the old rationalist-empiricist agreement via epistemic possibility. I think this is a misguided path to follow.

There are two main lines of this general approach, which I shall call the *Counterfeit View*. First, the proposal that conceivability leads to possibility seems to break down. It *seems* to break down, but it *does not* break down. For when we are supposedly guilty of modal error, in fact we are mistaking some different imaginary situation, a fake, for the original one. I shall call this THESIS ONE, that is, the thesis that when we make a modal mistake we imagine a situation different from the one that the evaluated sentence seems to represent. Secondly, THESIS TWO: conceivability and possibility still go hand in hand, for there exists some privileged proposi-

<sup>&</sup>lt;sup>5</sup> Reid (1969, essay iv, ch. iii) already attempted to demonstrate their autonomy; see especially his second argument. William Kneale (1949, 79–80) also argued against the conceivability-entails-possibility thesis.

<sup>&</sup>lt;sup>6</sup> I cannot consider all the approaches that fall into what I call the Counterfeit View; the literature is titanic. I take its main lines to be drawn in Chalmers's general account of bi-dimensional semantics as he summarizes it in Chalmers 2004, 158–62, and also in Jackson 1998. Jackson's and Chalmers's accounts differ, but their differences do not affect the following discussion. See also the clear introduction in Gendler and Hawthorne 2002.

tion that shows the appropriate a priori truth that is "always" necessarily true. Thus, THESIS TWO restores the empiricist-rationalist agreement.

However, this is the wrong form of restoration. Both theses have serious problems, or so I maintain in the ensuing sections. In section 4, I claim that the kind of a priori that the Counterfeit View proposes as a guide to metaphysical necessity is not really *an a priori guide* to metaphysical necessity. So thesis two is incorrect. In section 7, I argue that we do not conceive a fake situation when we conceive a metaphysical impossibility: we *do* conceive a metaphysical impossibility. So thesis one is false.

## 4. Empirical Concepts Versus Philosophical Categories

Consider Jackson's account of the a priori in the role it plays in metaphysical modality. There are two senses in which a term, say, "water," applies to different possible worlds: its A-extension, which is the liquid we drink, that is in our rivers, and so on; and its C-extension, which is  $H_2O$ . We know that water is  $H_2O$  a posteriori, for we have discovered that, in our world, water is  $H_2O$ . But, says Jackson, we know a priori that water is the liquid we drink, that is in our rivers, and so on, for the A-extension of water "does not depend on the nature of the actual world" (1998, 59). That is, "Water is the liquid that we drink, that is in our rivers, and so on" is a conceptual claim.

So the question is how this "conceptual" claim leads the way to metaphysical necessity. Here is an adaptation, to the case of water, of Jackson's proposed inference for the case of temperature (Jackson 1998, 59):

- Pr. 1 Water = the liquid that we drink, that is in our rivers, etc. (Conceptual claim)
- Pr. 2 The liquid that we drink, that is in our rivers, etc. =  $H_2O$ . (Empirical discovery)
- Conc. Water =  $H_2O$ . (Transitivity of "=")

The problem is that there seems to be no clear sense in which the necessity of Pr. 1 can help us to know that Conc. is necessary. Note, for a start, that there are *four different readings* of Pr. 1, and that Pr. 1 is necessary in only two of them.

(a) "=" is flanked by a rigid designator, "water," and a definite description that has a narrow scope: the sentence is a priori and contingent. This would correspond to the sense in which Kripke argued that "One meter is the length of bar B at  $t_l$ " is a priori and contingent. That is, there would have been a moment at which somebody said, "Let's call 'water' the liquid that we drink, that is in our rivers, and so on." Somebody would thus know Pr. 1 a priori, but then, even if it is a priori, it is clearly contingent that water is the liquid that we drink, that is in our rivers, and so on. Somebody would be pointing to our water stuff, which is not necessarily

the liquid that it is in our rivers, and so on. So, if Pr. 1 is a priori in this sense, it is not necessary; so Pr. 1 cannot be the route to the metaphysical necessity of Conc.

- (b) "=" in Pr. 1 is flanked by a rigid designator, "water," and a definite description that has a narrow scope, but the context is not one in which somebody introduces a rigid designator but rather a context in which he or she is merely pointing to true properties of the rigidly designated entity. In this sense, Pr. 1 is a posteriori and contingent. This is probably the most natural reading of Pr. 1—for instance, the reading that Laurence and Margolis (2003) seem to have in mind when they say that being a liquid that is in our rivers, being the stuff that we drink and use to do our washing, and so on, are all properties of water that we have clearly learned empirically. On this reading, being a posteriori and contingent, Pr. 1 cannot be an a priori route to the metaphysical necessity of Conc.
- (c) There is also a reading of Pr. 1 where it is necessary and a posteriori. This would be the sense in which the definite description has a wide scope; that is, Pr. 1 is necessary because necessarily water is *that entity* which is (contingently) the liquid that we drink, that is in our rives, and so on. But then, being a posteriori, Pr. 1 cannot be an a priori route to the metaphysical necessity of Conc.
- (d) In the most anti-Kripkean reading of all, Pr. 1 could be understood as a conceptual truth, that is, a pure definition of "water," as in a dictionary. Pr. 1 would then be necessary and a priori but useless for any epistemological purpose concerning the nature of our world. For in this sense it would be equivalent to: "The liquid that we drink, that is in our rivers, and so on, is the liquid that we drink, that is in our rivers, and so on." It would also be equivalent to: "Water is water." In this sense, it is obvious that "it does not depend on the nature of our world"; but, for the same reasons, it cannot demonstrate anything (necessary or not) about its nature. I think that this is in fact the reading that Jackson intends for Pr. 1, but it is fruitless: the substitution in Pr. 2 would not yield the empirical (synthetic) knowledge that Pr. 2 is intended to convey in Jackson's original inference.<sup>7</sup>

There are other problems. Assume that Pr. 1 is necessary, as Jackson claims. If Conc. is necessary because Pr. 1 is necessary, then Pr. 2 must be necessary as well. However, the contingent reading of Pr. 2 seems the most natural of all: there are possible worlds where the liquid that we drink, that is in our rivers, and so on, is XYZ and not water. After all, it seems a contingent property of water that we drink it or that it is in our rivers. But if Pr. 2 is contingent, for the same reasons Pr. 1 must be contingent, and the necessity of Conc. cannot be derived from the necessity of Pr. 1.

<sup>&</sup>lt;sup>7</sup> In other words, if Pr. 1 were an analytic truth and Pr. 2 an empirical claim, "=" in Pr. 1 and "=" in Pr. 2 would not have the same meaning.

Again, if Conc. is necessary because Pr. 1 is necessary, then Pr. 2 must be necessary. So let us assume, for the sake of argument, that Pr. 2 is necessary. If Pr. 2 is necessary, then: (i) what we really have in Pr. 1 and Pr. 2 are identity statements in which the definite description has a wide scope; so (ii) Pr. 1 is not playing a special role in the derivation of the necessity of Conc.; and, in particular, (iii) the a priori or a posteriori status of Pr. 1 is wholly irrelevant to the metaphysical necessity in Conc. In short, that Pr. 1 is, either conceptually or metaphysically, necessary does not explain or justify our knowledge that Conc. is necessary. THESIS TWO of the Counterfeit View is incorrect.

The lesson, I think, is that we are searching at the wrong level. What makes Conc. true in all possible worlds is that it says of a given entity that it is itself. This has nothing to do with the conceptual analysis of water, it has to do with the fact that Conc. is an *identity* statement. Conc. is necessary because identity is necessary; and the necessity of Conc. (and of Pr. 1 and Pr. 2, where the definite description has a wide scope) is related to the category of *identity*, not to the concept of *water*.

The necessity of the metaphysically necessary must be known a priori. The problem is to determine the sort of a priori access that is required for this knowledge. The Counterfeit View insists upon a sort of basic linguistic modal intuition about ordinary/scientific terms, such as "water" and "pain," and mental tests of their content; and there is something wrong with this whole enterprise. But the reason for its being wrong is not that modal intuitions about ordinary terms depend on conceptual truths whose status is not easily defended against some sort of Quinean argument against analyticity. The reason for its being wrong is that modal intuition is being applied at the wrong level. Modal intuition is at work. It is just that it works on highly abstract philosophical categories which, like identity and unlike water, belong at the limits of experience. These categories are no longer subject to possible empirical or imaginary investigation.

## 5. Fakes Versus Impossibilities

It should be obvious that if we take modal error into account, epistemic possibility is not metaphysical possibility. For the former conflicts too often with the latter: epistemic possibility allows us to imagine necessities that are mere factual contingencies, or to imagine possibilities that are factually impossible. We can imagine that the sun is not a star, but such an imaginary situation is *not* a possible world. There are metaphysically impossible imaginable situations. It is impossible, even if conceivable, that we could discover that the sun is a planet or a god. So if we still want to call this a possibility, we are bound to fall prey to contradictions (see also Bealer 2002, 89–90).

The Counterfeit View insists that these conceivable situations are not "really" impossible, but impossible-conditioned-to-actuality: As Chalm-

ers puts it, "'Water is XYZ' is true at the XYZ-world considered as actual, but false at the XYZ-world considered as counterfactual [that is, given that water is H<sub>2</sub>O]. The metaphysical impossibility of 'water is XYZ' reflects the fact that it is false at all worlds considered as counterfactual. But this is quite compatible with its being true at some worlds considered as actual" (Chalmers 2004, 186). That is, there are possible worlds at which water, that is, the liquid we drink to survive, is XYZ. These worlds are metaphysically impossible because we in our actual world have discovered that water is H<sub>2</sub>O. But "water" picks out other entities (like XYZ) at other possible worlds. If we keep the referent "water" in our world fixed, worlds where water is not H<sub>2</sub>O are counterfactually impossible. But they are still possible, for we could have discovered that the liquid we drink to survive, and so on, had a different composition.8 There is no question of contradiction here, claims the Counterfeit defender. Imagination misleads us, not because we imagine the impossible, but only in the sense that what we conceive and what is the case are different things. When we conceive that water is not H<sub>2</sub>O, or that the sun is a god—or that things could have turned out in either of these ways—what we conceive is the different, but similar enough, situation in which a certain liquid, which has the usual macroscopic properties that water has, is composed of XYZ; and the different, but similar enough, situation in which the celestial body that is big and yellow and was believed to rotate around the earth, is a deity. We conceive through true properties or descriptions of the entity in question, but somehow we lose the true referent of these descriptions.

Thus, if the Counterfeit View is correct, to conceive that it could have been the case that the sun is a god, is to conceive that some sunny-body, but not the sun, is a deity. This must be wrong. Metaphysics is concerned with the ontological commitments of true sentences; it is not primarily concerned with what sentences would, or could, say in different situations, or in different uses of language. But the Counterfeit View implies that when we conceive the negation of a true necessary statement, such a conception of ours does *not* mean for us that the corresponding fact is not the case; rather, the statement acquires a different meaning, and some fake fact takes its place. This is a high price to pay for hanging on to the conceivability-entails-possibility thesis. To be sure, it is possible that "water" (the term and/or its intension) is used to refer to some other stuff. It is also possible that our cognitive faculties could have been different or inexistent. It is possible that most of the properties water has, being contingent, could have belonged to other stuff that is not water. These are possible, and conceivable, situations. But these true possibilities need not

<sup>&</sup>lt;sup>8</sup> In Jackson's terms: "[S]ome water is not H<sub>2</sub>O' is epistemically possible in the following sense: consistent with what is required to understand it, the sentence might have expressed something both false and discoverable to be false: that is to say, its A-proposition is consistent with the context determining a false and knowably false C-proposition, though the C-proposition it in fact expresses is necessarily false" (Jackson 1998, 86).

be, and I think they *are* not, what we conceive when we conceive that water is not H<sub>2</sub>O. To accept that we conceive a fact other than water is not H<sub>2</sub>O, when we say we conceive that water is not H<sub>2</sub>O, is like accepting that we never see a woman looking through a window because we only see half of her body, or that we never perceive a tomato, only the surface of it. In metaphysics, statements should be taken at face value (and meaning)—trusting that their authors would not recommend any exercise in pragmatics or hermeneutics in order to grasp what they wanted to write, or what they say they can conceive.

(If I am right, then the class of logically possible worlds is not more inclusive than the class of metaphysically possible worlds. It is not possible that a true statement of metaphysical necessity is false! It is not the case that logical necessity is explained in terms of truth in all possible worlds, where metaphysical necessity is not. For instance, McLeod [2001, 48–51, 146–47] claims that metaphysical necessity cannot be spelled out in terms of truth in all possible worlds, because metaphysical necessity does not hold independently of what actually exists: there are worlds where Venus does not exist, so it is not true in all possible worlds that Hesperus is Phosphorus. But note, first, that in worlds where Venus does not exist, it is not the case that Hesperus is not Phosphorus; and, second, it is true in all possible worlds that if Hesperus is Phosphorus, then it is necessary that Hesperus is Phosphorus. And if logic differs from metaphysics, this is then a truth not of logic but of metaphysics.)

Thus when we conceive that water is not H<sub>2</sub>O, that is exactly what we conceive. THESIS ONE of the Counterfeit View is false. Imagination is just not the guide to possibility. Metaphysical impossibilities are conceivable. I can imagine that the sun is a god. I can conceive that I am at two distant places at the same time or travel backwards in time and talk to an old self of mine. I can conceive that the necessary being does not exist. I can conceive that I am a necessary being. I can dream that I live in an Escherian house that has been physically implemented by Frank Gehry. I can imagine that Mandelbrot walked the whole length of Koch Island during his lifetime. I can conceive all these situations. And, I bet, some of them are metaphysically impossible.<sup>9</sup>

Imagination is neither proof of possibility nor a limit to necessity. Conceivability does not entail possibility. There is certain information that is not accessible by imagination, or by any kind of knowledge, like perception, when it does not rest upon understanding and reason. Imagination and perception are modality blind if they work just with raw empirical material without logical control. So-called epistemic possibility is stoutly built on what we possibly or actually imagine with data that can be combined in multiple forms, including impossible ones. There is a need

<sup>&</sup>lt;sup>9</sup> So that p is possibly true, is not a way of expressing an attitude, an ability to accept that p or to imagine p, and so on.

for some control mechanism here, if we are to talk about what is really possible. And this consists of the categories and a priori structures with which we categorize and understand the world. Without categories, imagination runs free without constraint, groping at random. Modality is not within the scope of experience or imagination, it belongs to the framework and condition of experience itself.

## 6. Intuition and Categories

Ockham wrote that, in intuitive cognition, "the thing itself is seen and apprehended immediately, without any intermediary between it and the act" (Ordinatio I, d. 26, q. 3; 1967–88, 4:241). Ockham was talking about sense intuition, but there seems to be no reason why we cannot likewise talk of theoretical or categorical intuition. All the same, intuition is a form of immediate understanding, where immediate means without intermediaries. In contrast to imagination or perception, intuition does its job without the aid of representations or images. To intuit is not to imagine, nor to conceive a situation, nor to experience—by sense or introspection. So to intuit that something is possibly or necessarily the case is not to represent it. In intuitive cognition, knowledge of what is the case, or possibly or necessarily the case, is not imagining or representing such a case. This does not mean that intuition never works with empirical material, but many times it does not. Being, in this sense, independent of experience and imagination, intuition can release itself from the sort of modal error that imagination provokes. Modal knowledge can be gained through pure a priori intuition about categories. Categories are pure a priori concepts whose properties, relations, and logical structures can only be known a priori. Categories are to experience something like the Bill of Human Rights is to the wishes and everyday actions of people. There is a sense in which the bill could be changed or proved wrong, for it is people in the end that make even major international declarations; but it is still the Bill of Human Rights that governs our everyday actions and by which they are judged. In the same sense, our knowledge of the logical properties and structure of categories could be wrong, even if it cannot be disconfirmed by possible experience. Categories belong to the framework of experience. They are, in fact, necessary transcendental conditions for experience itself.10

<sup>&</sup>lt;sup>10</sup> If categories are independent of experience, their meaning and our understanding of them will not be directly affected by empirical experience of the world. This matches Bealer's definition (e.g., 1996) of *semantic stable terms*. In a way, many of the ideas I am defending, concerning intuition and categories, are close to Bealer's, but one significant difference is this: Bealer uses cases such as water could have been XYZ, in the sense that "water" could have picked out a different referent, to make his distinction between stable terms such as

However, they are not world-independent. Modal statements of fact are made true by modal facts, even if their modality can be known only by a priori means. The truth of modal statements reflects the meeting point between the structure of our knowledge and the structure of reality. That is how categories, while not depending upon their instances, can yield knowledge of the necessity of empirical facts that instantiate them. Categories belong to the inner and most profound structure of reality and to the most profound structure of cognition and language. They form, following Strawson (1959, 10) the massive central core of human thinking which has no history and which in its most fundamental character does not change at all. The question of the most general among our a priori categories and structures is the question of the most general categories and structures in reality, and that is a modal question; for, through being the form and shape of reality, categories draw the limits of real possibility.

Philosophical categories are the categories that philosophers have studied since the very origin of philosophy: identity, existence, causality, truth, property, relation, substance, species, number, actuality, necessity, category, time, law, and so forth, and it can reasonably be argued that some of them hide some metaphysical necessity. It can be argued that identity is such that it is metaphysically necessary that every entity is identical to itself; that existence is such that every existent thing exists contingently; that time is such that necessarily everything that exists in time exists at some present; that there is some sort of necessary connection in causality; and that laws of nature are necessary because some statements express unrealized empirical possibilities. Any possible defence of these theses is a priori, independent of any particular law, entity, casual fact, or particular being in time. If any of these theses are true, their truth can only be discovered a priori, by means of philosophical study of the appropriate category, an immanent reflection that can be combined with rigorous logical analysis and with a posteriori empirical adequacy. Hard as it is to "prove" that there is categorical intuition, I quote Kant's words regarding mathematical knowledge: "A new light flashed upon the mind of the first man (be he Thales or some other) who demonstrated the properties of the isosceles triangle. The true method, so he found, was not to inspect what he discerned either in the figure, or in the bare concept of it, and from this, as it were, to read off its properties; but to bring out what was necessarily implied in the concepts that he had himself formed *a priori*, and had put into the figure in the construction by which he presented it to himself" (Kant 1950, 19 [Bxii]).

"property" and unstable terms such as "water." For me, that "water" could have picked out a different referent is just irrelevant for the discussion concerning categories and intuition. So I think that Bealer may disagree with many of the reasons given here against the Counterfeit View (sec. 4).

Let's go back to the Kripkean schema,

(P) True statements of kind *K* are necessarily true. [a priori]
(i) *p* (of kind *K*) is true. [a posteriori]
(ii) *p* is necessarily true. [a posteriori]

I was seeking grounds for (i) and (P) and have found them along the following lines. Intuition can guide us to the modal status of some empirical statements when the statements involve a priori philosophical categories that conceal metaphysical modality. A necessary fact is not necessary because it is known a priori; and the truth of any statement of fact is known a posteriori. However, knowledge of its necessity must come from non-empirical sources, and the best candidate is the critical a priori study of the appropriate category in our conceptual structure that the fact instantiates.

(McGinn [1981, 157–58, 182–83], Sidelle [1989], and McLeod [2001, 32ff.] also agree that there is a strong connection between metaphysical modality and the a priori in a direction close to this, but their accounts of the a priori finally differ between each other, and from the one offered here. For McGinn too there is some sort of a priori knowledge of concepts—law, identity, origin, and so on—that is not dependent on causal interaction with the subject matter, but he does not say how this kind of a priori knowledge is possible, and I doubt that he would agree with proposing categorical intuition for this purpose. For Sidelle, there are conceptual analytic truths that, contrary to highly abstract philosophical pure categories, involve scientific/ordinary terms. For McLeod, there is a priori de dicto modality concerning de re modal notions such as "If it is possible that Pa, then a is possibly P." I fail to see why only de re modality, in which essentialism is included but from which modality of facts is excluded, means metaphysical modality. McLeod seems to imply that modality of facts is logical modality, whatever the relation he defends between this modality and metaphysical modality.)<sup>11</sup>

In the next section I propose *causality* as an example to show that our access to the necessity in causation is not by means of imagination or of any other sort of representational knowledge, but categorical intuition regarding the modal nature of causality could secure our knowledge of singular a posteriori facts of causation as necessary.

#### 8. Causation

Hume argued against a necessary ontological connection between the particulars we call the cause and its effect, because the impression of any of them is *conceivable* without the other, without contradiction. For Hume, what we conceive, the material in our minds, are mental images.

<sup>&</sup>lt;sup>11</sup> See also my footnotes 1 and 9.

Ideas and impressions are *figmenta*, representations of things in reality which imagination copies and recreates with the aid of memory and perception. The capacity of imagination to combine mental representations of different causes and effects grounds his argument against any necessity in causation. I can conceive that a hundred different events might follow from the movement of a billiard ball in a straight line towards another. Both these balls might remain at absolute rest. The first ball could return in a straight line or speed away from the second in any direction. All these suppositions are consistent and conceivable. Why, then, should we give preference to one? All our reasoning a priori will never be able to show any foundation for this preference (Enquiry IV, i; 1907, 28). There is nothing in the representation of the actual movement of a billiard ball that leads to any particular representation of the movement of the other. And nothing in the representation of the movement of the second leads to any particular representation of the movement of the first. The impressions of their corresponding movements are totally separable in the imagination and could be combined with many different ideas. Therefore, and this is Hume's conclusion, no a priori investigation can show a necessary connection between them.<sup>12</sup>

However, this is Hume's mistake. Hume is right that imagination cannot provide the necessary connection in causation. Imagination works without modal constraint, with the empirical material given through experience, and thus runs the risk of modal error. My imagination combines movements of billiard balls as it combines humans with fish tails, but maybe some combinations are impossible; maybe mermaids are impossible beings. Imagination cannot show a necessary connection between the movement of one billiard ball and the movement of the other; but this does not mean that there is no knowable necessary connection between them. If there is causation, there is a necessary link. But to be acquainted with it, it is necessary to take into account categories that are not given through the experience and imagination of the movements of the balls themselves. Just as it is not by imagining Phosphorus that we see that it is necessarily Hesperus, so it is not by imagining the occurrence of the movement of one billiard ball that we see any necessary connection with the movement of the other. Only when identity comes into the picture can we know that necessarily Hesperus is Phosphorus: because we can discover a priori that identity is such that necessarily any entity is selfidentical. Equally, only when causation comes into the picture are we aware of a necessary connection between the occurrences of the movements: when we know a priori that causation conveys a necessary connection between its relata.

Of course we do not know a priori that one movement causes the other. What we could know a priori is that there is certain metaphysical necessity

<sup>&</sup>lt;sup>12</sup> I analyse Hume's argument against necessity in causation in Garcia-Encinas 2003.

in causation. However, this knowledge, as Hume clearly shows, lies beyond the reach of imagination and perception. To bring out what is necessarily involved in causation, a light must shine upon the understanding. For the meaning and comprehension of a philosophical category such as causality does not depend upon its particular empirical instances. The category of causation is independent of whether the movements of the balls are causally connected or not, in the same sense in which the category of identity is independent of the existence of any particular entity.

Consider Kant's reply to Hume: "The very concept of a cause so manifestly contains the concept of a necessary connection with an effect and of the strict universality of the rule, that the concept would be altogether lost if we attempted to derive it, as Hume has done, from a repeated association of that which happens with that which precedes, and from a custom of connecting representations" (Kant 1990, 44 [B5]). The absence of a necessary connection between the occurrences we call the cause and its effect, says Kant, implies that they are not causally related. Kant cleverly realizes that the same idea underlies Hume's argument: without necessity there is no causation. Hume shows that there is no causation because there is no necessity that we can learn from experience; Kant concludes the necessary connection because there must be causation: without causation empirical knowledge would be impossible.<sup>13</sup>

Kant's defence of the necessity in causation is a priori but does not rest upon imagination. If it did, Hume would be right, because imagination does not have access to the modal realm. Kant thinks of the necessary causal nexus as a necessary condition of our phenomenological knowledge and conceptualization of experience. The necessity in causation is grounded in the role that causation plays within our conceptual schema, on its relation to other concepts and categories, on the limits and necessity of its application, and so on. Causal necessity cannot be confined to the powers of imagination or the possibility of conceiving concrete empirical situations to test hypotheses about the modal properties of our world. Modal knowledge does not depend on the capacity to *imagine* billiard balls; but it is a priori. 14

Hume's mistake is to identify the imaginable with the metaphysically possible. However, the categories of causation, identity, existence, time, and so on, as well as their logical properties lie outside the scope of

<sup>&</sup>lt;sup>13</sup> One man's reason is another man's *reductio*, as David Lewis wrote (1986, 207). Intuitions are often in conflict, but this is the philosophical arena.

<sup>&</sup>lt;sup>14</sup> Kant would not call his defence "intuitive." He reserves intuition for sense intuition, and pure intuition for knowledge of pure forms of sensibility (space and time). But the main characteristics of intuition remain: (i) knowledge of causality is not dependent on imagination or experience; so (ii) it is not representational; (iii) it should be confirmed by experience (otherwise it is wrong); and (iv) it is a priori knowledge of a structure of consistent relations between categories. I am calling knowledge with these characteristics categorical intuition.

imagination. They are beyond imagination because they belong to the framework, the limit, of experience itself. This is why they can provide true knowledge of the modal status of their instances. Categories are our modal anchorage to the world. Thus, when a particular instantiation of a category with modal implications is met, a modal fact in reality can be empirically apprehended.

#### 9. Conclusions

The acceptance of necessary a posteriori truths à la Kripke relies on a priori investigation of very abstract philosophical categories in philosophical language, *identity*, *causality*, *existence*, *species*, *natural law*, *substance*, and so on, that are given in intuition and that hide some metaphysical modality that particular empirical facts instantiate. Even if categories are susceptible of empirical instantiation, even if categories without instances would be void, the study of the categories themselves involves abstraction from empirical content. This study is not representationalist in any sense. Neither a posteriori investigation of their instances nor imaginary work on modal facts can reveal their metaphysical modal status. If there are necessary truths that can be known a posteriori, it is categorical intuition that reveals the necessity of the corresponding empirically discovered facts.

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