

The epistemology of modality

1. Background

This chapter is on the epistemology of modality. To provide the right context and focus, however, some preliminaries are in order. To start, the term ‘modality’ refers to the phenomenon of necessities and possibilities (as well as related ones such as impossibilities and contingencies) and it can be understood in different senses. In its most general sense, it refers to the variety of different modalities.¹ In this chapter, however, our focus will be *metaphysical* modality and, although I will not make it explicit each time, this is how my use of modal vocabulary should be understood.

Metaphysical modality is a type of *alethic* modality and, as such, it tracks modes in which propositions (or sentences) can be true or false.² Consider for instance the following propositions:

- (1) There is gold on Earth
- (2) There are seven pebbles in my pocket
- (3) Two plus two equals five
- (4) Socrates is human

Of these, only (1) and (4) are true—I do *not* have pebbles in my pocket. Do they enjoy the same mode of truth? Many would say no; that while (4) is *necessarily* true and thus Socrates could only exist as a human being, the presence of gold on Earth is *contingent* and thus there could be none. Something similar happens with the falsity of (2) and (3). As most would agree, the falsity of (2) is contingent while that of (3) is necessary: I could easily have seven pebbles in my pocket but there’s no way two plus two could be five; (3) is an impossible proposition.

One way—a particularly relevant one for current purposes—in which metaphysical modality can be distinguished from other alethic modalities is by means of its strong link to *essential truths*. Essentialism studies the nature of things and is concerned with questions such as ‘what makes a thing the thing it is?’ and ‘what properties or relations are essential to which entities?’. In the words of Bob Hale, the close tie between essentialism and metaphysical modality gets expressed thus:

¹ These include epistemic (relating to knowledge and belief), deontic (relating to norms) and alethic (relating to truth). See (Kment 2017) for an excellent survey on the varieties of modality.

² Other paradigmatic types of *alethic* modalities include *nomological* (constrained by natural laws), *logical* (constrained by logical laws), and *conceptual* (constrained by conceptual relations). But also modalities such as *historical modalities* (what is possible/necessary at a given point in time given the worlds’ past) count as alethic. See (Kment 2017: §3) for a thorough discussion on the structure of the metaphysical modal realm.

Metaphysical necessities have their source in the natures of things, and metaphysical possibilities are those left open by the natures of things. (Hale 2013: 253)

This quotation is not neutral among the different views available on what exactly the link between metaphysical modality and essential truths is. Rather, it is a salient representative of a (widely accepted) family of Finean views, unified by the thesis that essential truths imply necessities but not the other way around. Thus, for instance, Socrates being essentially human entails that, necessarily, he is human if he exists. But also, there would be propositions that, while being necessary, their necessity doesn't imply the corresponding essential truth. Kit Fine suggests the following as one among a battery of examples:

(5) Socrates belongs to {Socrates}

According to the most salient opponents to the Fineans in this context—the modalists—the tie between metaphysical modality and essentialism is even more intimate than Hale suggests, in that necessary truths also imply essential ones: something being essential to a given entity *just is* it being necessary of it.³

It will also be relevant for the purposes of this chapter that we distinguish between mind-dependent accounts of modality and mind-independent ones. The realm of the imaginable is mind-dependent in that it depends on what the mind can imagine. Some accounts of modality have claimed the truth-conditions of modal claims such as ‘Donkeys could talk’ to be dependent on what we can imagine, thereby making the modal realm a mind-dependent one too. Crudely, on these accounts, to say that donkeys could talk comes very close to just saying that we can imagine that they talk. It is thus not an intrinsic statement about donkeys (generalizing: about the extra mental world) but rather one about our mental lives (what we can imagine). At most, it is then a relational statement about donkeys: about what our mental capacities can do with them; namely, imagining them talking. In opposition to mind-dependent accounts, we find the mind-independent ones. According to them, the truth-makers for modal claims are to be found in the extra-mental world.⁴ The claim ‘donkeys could talk’ gets its truth-value irrespective of what goes (or could go) on in the minds of those who think modally; namely us. As we will see later, some modal mind-independentist theorists take it that imaginability/conceivability provides an *epistemic route* to modal knowledge. This position, however, is not to be confused with the mind-dependent one. The difference is sharp: between taking imaginability/conceivability facts as *constitutive of* modal truth, and taking them as an epistemic route to (mind-independent) modal truth.

The dominant stand in the literature is modal mind-independence. This has also been a default position: modal mind-dependence is usually seen as something we would need to be forced

³ We do not, for current purposes, need to take a stand on the matter. For, even according to the Fineans, who hold the weaker relation between essence and modality, the link is strong enough. For representative literature on the debate between modal and non-modal accounts of the notion of *essence* see (Fine 1994), (Correia 2007), and (Romero 2019).

⁴ Exceptions to this bold claim include modal claims like [‘It is possible that X’] where X involves a mental activity, like ‘It is possible that I imagine a talking donkey’. A refined claim would need to take this class of statements into account but, for current purposes, it won’t harm to stick to the bold claim.

into. As we shall see later on, the challenge that modal knowledge poses is motivated under the assumption of mind-independence, to the point that going mind-dependent can be seen as a way of meeting *that* challenge.

Now, the label ‘The epistemology of modality’ is usually received as making reference to the epistemology of *metaphysical* modality, and there is a literature-based explanation for this: for the most part, the literature on the epistemology of modality has been focused on the metaphysical type of modality. When doing epistemology, the *rationale* for focusing on one specific type of modality—rather than, for instance, on the more general phenomenon—lies, at least partly, in the fact that not all types of modalities will pose the same pressing epistemological questions and, even when there might be overlap on this level, it is not to be taken for granted that analogous questions will call for analogous answers. A case-by-case approach appears thus to be methodologically adequate. The present chapter, in being focused on metaphysical modality, contributes to the existing tendency in the literature. Also, by way of witnessing the methodological recommendation: it will emerge in later sections that the close link between metaphysical modality and essential truths have been taken by many modal epistemologists as suggesting a specific kind of solution to the epistemic challenge that metaphysical modal knowledge raises; a solution that, by the nature of the case, is not transferable to other types of modalities.

In §2, I present the bare bones of the challenge that modal knowledge raises. After that, I will focus on two meta-epistemological distinctions that are becoming more and more central in the literature. The first-one (the focus of §3) classifies the epistemologies of modality on the basis of the amount and nature of the suggested routes to modal knowledge. The second one (the focus of §4) classifies epistemologies on the basis of their suggested epistemic priority relations. The final section (§5) contains final remarks.

2. The epistemic challenge in modality

The existence of modal knowledge is puzzling and its explication challenging. In addition, for reasons that van Inwagen (1998) makes clear, and that are accepted well beyond the cohort of modal epistemologists, having available an epistemology of modality with the required explanatory power is of interest to the whole philosophical community. It is on the grounds of what van Inwagen (1998) calls ‘a possibility argument’, for instance, that Chalmers (1996) rests his case for his type of dualism in the Philosophy of Mind; an argument that contains, as one of its premises, the possibility of zombies. It is also on the grounds of a possibility argument that the existence of God has been argued for, appealing to the possibility of a perfect being. To the extent that a great deal of philosophical arguments involve modal premises, the epistemology of modality has an important role to play in providing epistemic foundations for philosophy (and likely beyond).

Over the past recent decades, the developments in the epistemology of modality have centred on a puzzlement the dissolution of which has generated—and continues to generate—controversy. The puzzle is formulated under the assumption of modal mind-independence and it owes a lot to Edward Craig and Simon Blackburn. Under that assumption—plus a further epistemological assumption to be spelled out shortly—the problem is that there seems to be no room for the satisfaction of the possibility conditions for modal knowledge.

Here is E. Craig's transcendental question for the case of *necessity* where he already suggests a *causal affection constraint* on any potentially satisfactory answer:

How are we to know of necessity in reality unless it affects us, and in some way differently from mere truth? (Craig 1985: 104)

This constraint requires commitment to a necessity-sensitive faculty and, in the terms of S. Blackburn, the problem is that "we do not understand our own must-detecting faculty." (Blackburn 1986: 52) To elaborate on why not:

Think of the analogy: what affects my senses is the fact of the tree's being there; it wouldn't affect them any differently if its being there were necessary. (Craig 1985: 104)

Taking stock, the problem can be formulated as the unwelcome inconsistency among the following three claims:

- (a) We have knowledge of extra-mental modal facts.
- (b) Any knowledge of the extra-mental world is grounded on causal affection.
- (c) Any knowledge grounded on causal affection is bound to be knowledge of *mere* (as opposed to modal) truths.

Claim (a) denies modal scepticism while incorporating the assumption of mind-independence. And yet, claims (b) and (c) imply modal scepticism; they capture the Blackburn/Craig stand that modal knowledge requires causal affection and that causal affection (by actuality) won't inform us about the modal realm.

Formulating the challenge as the unwelcome (a)(b)(c) tension helps explaining the different paths that recent literature on the epistemology of modality has taken. Especially when noting that, while jointly inconsistent, the (a)(b)(c) claims are two-to-two consistent: that is, any two of them are jointly consistent. On these bases we could identify three straightforward paths to solving the challenge: deny (a) and become a modal sceptic; deny (b) and become a modal rationalist; or deny (c) and become a modal empiricist. Less simple paths involve combinations of those strategies.

As a reaction to the increasingly recognized importance of modal epistemology, a lot of effort has been put in the last three decades towards finding a satisfactory theory of modal knowledge that meets the Blackburn/Craig challenge. These years, after the impact of the Kripkean a posteriori necessities (1972/1980), have witnessed what Bealer diagnosed, already in 2002, as a *rationalist renaissance*, and the literature is now witnessing a turn partially away from rationalism. Among the witnesses of the rationalist renaissance, one finds prominent accounts such as Chalmers' (2002), Bealer's (2002, 2004), Lowe's (2008, 2012), Menzies' (1998), Peacocke's (1999), Yablo's (1993), and Sidelle's conventionalism (1989). Salient instances of the latter include Biggs's (2011), Elder's (2004), Fischer's (2017), Jenkins' (2010), Leon's (2017), Mišćević's (2003), Nolan's (2017), Roca-Royes's (2017),

Strohminger's (2015), Tahko's (2017), Vetter's (2016) and Williamson's (2007)⁵. Against this dialectics, a salient view that fights the current turn away from rationalism is McLeod's (2009), who defends that modal mind-independence requires modal rationalism.

The three paths to solving the challenge identified above—scepticism, rationalism, or empiricism—are neat theoretical options. Still, the literature isn't always as neat as this, and there are good theoretical reasons why not. A bold denial of (a), for instance, is exceedingly implausible: we do have at least *some* modal knowledge—e.g., that you *could* break a bone, that Croatia *could have won* World Cup 2018—and this knowledge calls for an explanation that requires the denial of either (b) or (c). But at the same time, one might want to put limits on the amount of modal knowledge we have, thereby embracing *partial* modal scepticism and *partial* modal rationalism or empiricism, depending on whether it is (b) or (c) that one denies in their explanations of the modal knowledge we have.⁶ And to add complexity, one might choose to explain some modal knowledge in a rationalistic manner and some other modal knowledge in an empiricist way, the overall picture resulting in a highly heterogeneous epistemology of modality.

In the following two sections I will focus on two meta-epistemological distinctions—one centred on the variety of sources of modal knowledge and the other one on an epistemic priority question—that are becoming more and more central to the epistemology of modality and that, at the same time, contribute to explaining the partial turn away from rationalism we are witnessing these days.

3. Uniformity vs. non-uniformity

Uniform epistemologies will be characterized here as answering the 'how do we know?' question in a one-fold manner. Until recently, uniformism has been an implicit default among rationalist epistemologies. For instance, 'we know by determinately understanding' is Bealer's reliabilist answer (2002; 2004); 'we know by conceiving' is Chalmers's (2002) conceivabilist one, as well as Yablo's (1993) and Sidelle's (1989), the latter from within conventionalism; 'we know by reasoning and comprehensive thought' is Lowe's (2008; 2012); and 'we know by reasoning from the Principles of Possibility' is Peacocke's (1999).

Such answers have *pro tanto* the virtue of uniformity—and the elegance that comes with it—in their favour. Unfortunately, these accounts have been found wanting on several grounds, some of which having to do, precisely, with their uniformity. A salient complaint is that their proposed (epistemological) explanations are not generalizable far enough beyond their running examples. And, arguably, an explanation of this deficit is that they seem to neglect—by not making any explicit mention of it, and by not incorporating it into their

⁵ Williamson would probably not be happy having his account classified as either rationalist or empiricist. He thinks that such categories are of not much epistemological significance. Still, without doing *that*, I think it is not unfair to the view's spirit to receive it as witnessing the turn away from rationalist epistemologies of modality.

⁶ Van Inwagen (1998) is a foundational representative of a partial sceptic. While he is not clear what explanation is to be provided for the cases of modal knowledge that we have, he is absolutely clear both that we have some modal knowledge and that there are some modal facts that are beyond epistemic access.

strategies—the potential relevance, for its epistemology, of the heterogeneity of the subject matter of modality. Nominalist worries aside, the subject matter of modality includes both *concreta* and *abstracta*. It is widely agreed that an epistemology of *categorical* truths about concrete entities should be notably different from an epistemology of such truths about abstract entities: the role of causal affection being less, if existent at all, in the latter. The hypothesis that emerges from these considerations is that this necessitates a non-uniform epistemology of modality, according to which there are different sources of (first-hand) modal knowledge depending on their aboutness. For an articulation of the reasons supporting the hypothesis, see (Roca-Royes 2007) and Mallozzi’s work (2018a, 2018b), who calls for non-uniformism with the slogan of “putting modal metaphysics first”.

To frame the discussion on the epistemology of modality in terms of the distinction between uniform and non-uniform is a fairly recent phenomenon, but it is increasing fast. Still, and despite the intuitiveness behind it, the literature hasn’t quite settled on any one precise way of understanding the distinction between uniform and non-uniform modal epistemologies. One can conveniently distinguish between a coarse-grained and a fine-grained understanding of the distinction. Both understandings can be glossed in the same way: the uniformism/non-uniformism distinction has to do with how many sources of modal knowledge one thinks there are, “the *uniformity view* hold[ing] that there is only one single route to modal knowledge at the most fundamental level of explanation” (Vaidya 2015). Still, different ways of individuating *routes* will yield to (extensionally) non-equivalent understandings of the distinction.⁷

The coarse-grained understanding is tied to the *a priori/a posteriori* distinction. On this understanding, an epistemology of modality for which all of our modal knowledge was acquired by *a priori* means would be uniform irrespective of whether different epistemic tools were involved, at a basic level, in explaining different pieces of modal knowledge. Wirling (2019: footnote 68) is right in attributing to Tahko (2015) the coarse-grained understanding of the distinction.

The fine-grained understanding (the one implicit in (Roca-Royes 2007)), by contrast, takes ‘routes’ more narrowly. More needs to be said about what exactly is taken to constitute a route but, roughly, and on the basis of what the literature has offered so far: conceiving, rational insight, determinate understanding, reflection from Peacocke’s *Principles of Possibility*, induction (whether *a posteriori* or *a priori*), abduction (again, *a posteriori* or *a priori*), entitlements, and counterfactual reasoning would be among the epistemic tools that, either by themselves or in combination, can constitute routes to modal belief. On this understanding, an epistemology of modality will be uniform provided that one single route (thus individuated) is appealed to in order to explain all instances of modal knowledge.^{8,9}

⁷ These two ways of understanding the distinction (and the different ways of individuating routes) were first suggested to me by Ylwa Wirling, to whom I also thank for letting me use her convenient labeling.

⁸ This doesn’t mean that the advocates of uniform accounts would only allow *one* and always the same route to modal knowledge. (There isn’t always enough explicit discussion on the issue.) It *does* mean, however, that they would believe in the existence of one route

I turn now to identify representatives of these categories that one finds in the literature. As indicated above, the accounts by Bealer, Chalmers, Lowe, Peacocke, Sidelle and Yablo are all arguably uniform in the fine-grained sense. They are also all rationalist accounts—with a qualification that allows them to accommodate, rather than neglecting, knowledge of *a posteriori* necessities within their theories—and, thus, each comes out as uniform in the coarse-grained sense too.¹⁰ Jenkins’ conceivability account (2010) also comes out as uniform in both the fine- and the coarse-grained understandings, with the difference that hers is an empiricist one.

Hale’s account, in being also—with the same qualification as above—a rationalist one, also counts as uniform in the coarse-grained sense. Yet, it cannot be classified as uniform in the fine-grained one. Hale defends that reflection on the meanings of words is a route to *some* modal knowledge. It is this route that is at play in, for instance, our acquisition of essentialist knowledge about (the property of) *being a square*.

Clear and straightforward cases in which knowledge of meaning suffices for knowledge of essence are those in which we are able to give an explicit definition of a word [...]. For example, a plane figure is correctly described as ‘square’ iff it is made up of four straight sides of equal length, meeting at right-angles. Precisely because such a definition gives [analytically] necessary and sufficient conditions for the word ‘square’ to apply, there is no mystery how we can know that there is no more (and no less) to being square than satisfying those conditions. (Hale 2013: 255.)

capable of providing access to all knowable modal truths; and it does mean that they make this route—whichever that is on each occasion—the centre of their epistemological explanations. Quite likely, for instance, the advocates of the uniform (one-fold) answers mentioned above will also allow for testimony to be a route to modal knowledge and, perhaps more pressingly, they would also agree to actuality being a proof of possibility. This doesn’t undermine the claim that their accounts are uniform. What makes them so is the fact that their privileged route *also*, according to them, provides epistemic access to those alternatively accessible modal truths.

⁹ The remark in the previous footnote makes it convenient to distinguish, for the purpose of leaving it aside, a further way in which the uniform/non-uniform distinction could be understood. On this further understanding, an epistemology of modality would be non-uniform if it endorses more than one possible route to knowing the same modal truth(s) (for at least some modal truths). This is the understanding Vaidya is making room for when he writes that “[t]he *non-uniformity* view maintains either that different people can come to know the same modal truth through different routes or that at the fundamental level of investigation there must be more than one route to modal knowledge.” (Vaidya 2015)

¹⁰ The qualification is that they claim modal knowledge to be *fundamentally* a priori. The term ‘fundamentally’ is here intended to allow for the inclusion of knowledge of *a posteriori* necessities like, perhaps, that *Socrates is necessarily human*. And the way these can be subsumed under a rationalist programme is by factoring them out into an essentialist principle—supposedly (*purely*) a priori—like *all humans are necessarily human*, and an a posteriori non-modal truth, like *Socrates is human*. For more on how a posteriori necessities can be subsumed under a rationalist programme by claiming them to be *fundamentally* a priori, see (Peacocke 1999: 168-9).

Yet, this route doesn't generalise. It wouldn't generate knowledge of what Hale labels 'general principles of essence'—"principles asserting, schematically, that such-and-such a property is essential to its instances" (Hale 2013: 269)—paradigm examples of which are *the essentiality of origins* and *the essentiality of kind membership*. For such principles, Hale thinks and I agree, an abductive case, with somewhat less probative force than meaning-based arguments, is the strongest non-question-begging type of argument we're in a position to offer (Hale 2013: 271). The resulting epistemology of modality, one that is as wide in scope as the explanandum requires, will thus be non-uniform in the fine-grained sense. As mentioned above though, and because of the rationalist nature of Hale's variety of explanations, it still counts as uniform in the coarse-grained sense.

Things are otherwise with the epistemology of modality I favour (as presented in (Roca-Royes 2017 and 2018)), which comes out as non-uniform in both the coarse- and the fine-grained senses. In a nutshell, three partial theses set the grounds of the account. First, that while (rationalist) meaning-based explanations are best to explain certain instances of modal knowledge, they are limited in scope: again, and in agreement with Hale, they don't generalise. Second, that our knowledge of ordinary possibilities about concrete entities requires induction-based explanations of an empirical sort that, yet again, don't generalise. Third, that *that* inductive knowledge will not figure among the epistemic grounds for necessity/essentialist knowledge and, as such, an altogether independent route to such knowledge will be needed. The upshot epistemology is, consequently, non-uniform in the two senses.

One might have expected to see Williamson's counterfactual-based account (2007) classified as a uniform one, at least in the fine-grained sense. For Williamson's answer to the 'how do we know?' question can be neatly glossed with 'by reasoning counterfactually'. Yet, such classifying would be inadequate. To begin with, already in 2007 Williamson adverts that "[t]here is no uniform epistemology of counterfactual conditionals. In particular, imaginative simulation is neither always necessary nor always sufficient for their evaluation, even when they can be evaluated." (Williamson 2007: 152). There is therefore no reason to expect that our epistemic access to those counterfactuals that are relevantly involved in the acquisition of modal knowledge is uniformly explainable. If anything, there is reason to expect the opposite. In addition, in his *Modal Logic as Metaphysics* (2013) Williamson engages with different routes to knowing objective modal facts, abduction being a prominent one. Saliently, such facts include, as Strohming and Yli-Vakkuri stress (2017), the most general modal facts.

The issue of generalizability from running examples (illustrated all along this section) has made it into the collective awareness of modal epistemologists. Thus, for instance, Biggs suggests an abduction-based explanation to cover modal knowledge involving scientific entities but, at the same time, he's very cautious (2011: §4.4) not to rush *general* conclusions about the explanatory power of his abduction-based explanations. Similarly, Strohming offers a perception-based epistemology of our knowledge of *some* non-actual possibilities and, like Biggs, she's also cautious not to generalize hastily: "I have argued that some claims about nonactual possibilities can be, and often are, known by perception. I am not suggesting that perception has the ability to explain *all* of our knowledge of nonactual possibilities, even when supplemented with inference and testimony" (Strohming 2015: 369). The same is true

of Hanrahan's imagination-based epistemology, aimed at explaining the justification we have for "a certain set of our modal beliefs" (Hanrahan 2007: 142) while being declared limited beyond this; and of Rasmussen's *continuity*-based guide to possibility (2014), which he claims to be "restricted to modal claims of a very specific sort" (526). To provide one last example, Nimtz (2012) offers an epistemology of modality explicitly confined to explaining knowledge of those metaphysical necessities that are (epistemically) grounded in knowledge of conceptual necessities.

It is not surprising that this collective awareness about the generalizability issue goes hand in hand with, and in fact explains, our increasing interest towards non-uniform epistemologies of modality. Indeed, to put forward an epistemology of modality that one already assesses as not being able to explain all cases of modal knowledge calls for *additional* explanations to cover those instances of knowledge thus far left unexplained. Non-uniformism will be the upshot.

4. The structure of modal knowledge

The second distinction I want to focus on turns on the structure of modal knowledge, and it owes a lot to Bob Hale. Already in 2003 he distinguished between symmetric and asymmetric accounts of modal knowledge and, within the asymmetric ones, he distinguished between the necessity-first and possibility-first ones. Crudely, the key trait of an asymmetric *necessity*-first epistemology of modality is the existence of a base class of known *necessities* such that all other modal knowledge (of remaining necessities and of possibilities) ultimately depends on our knowledge of the elements in that base class. There is thus an asymmetry in the epistemic priority order. Similarly, an asymmetric possibility-first account will claim the existence of a base class containing only known possibilities. By contrast, on a symmetric account one will find both possibility- and necessity-knowledge at the most fundamental level.

Bob Hale (2003) offered powerful reasons against an asymmetric possibility-first account. At that time, he already leaned towards an asymmetric necessity-first one but left the door open to a symmetric epistemology; indeed, his main aim there was to compare the explanatory strengths of the two asymmetric accounts. Things are different in his most recent development of the view (2013) where, building up from his earlier arguments, endorses a necessity-first approach. His main motivation for doing so stems from his own metaphysics of modality: *the essentialist theory of necessity*; a member of the Finean family of views, as referred to in §1. As mentioned there, Hale thinks that the intimate link between essential truths and the metaphysical realm is to be understood as an ontological priority of the essential over the modal: modality is grounded in essence. At an ontological level, therefore, the essential facts about a given entity imply the *de re* necessities involving it and those, in turn, determine the space of possibilities for it (no reverse implications). Hale finds it that a *mirroring* epistemology of modality is strongly suggested by this ontological picture. As he says, given the ontological priority order, "one might expect an explanation of how we can have knowledge of the nature or essence of things to play a fundamental and central part in explaining knowledge of necessity" (Hale 2013: 254). The full mirroring epistemology thus includes, as a proper part, an asymmetric necessity-first approach. On the resulting picture, knowledge of essence would come first, as most fundamental, followed by knowledge of directly derived *de re* necessities—the elements of the base class—followed in turn by

knowledge of *de re* possibilities (as those determined to be compatible with the *de re* necessities) and possibly of further necessities too.¹¹

Although the literature has widely endorsed Hale's distinction(s) when it comes to classifying the different epistemologies of modality in the market, there hasn't been much published discussion about Hale's specific arguments for the convenience of an asymmetric necessity-first approach. An excellent exception is (Fischer 2016). There, apart from casting doubts on the felicity of Hale's arguments, Fischer stresses the importance of scrutinizing them:

Hale's goal is to motivate a necessity-based approach. If his arguments work, then we shouldn't accept views like Stephen Yablo's (1993). [...] This is a possibility-based approach: I acquire a well-founded belief that there are no conflicting necessities by objectually imagining the relevant world; I don't need to begin with a well-founded belief that there aren't any conflicting necessities. The same point probably applies to most conceivability- or imaginability-based views—including, e.g., Hart (1988), van Woudenberg (2006), Hanrahan (2007), and Kung (2010). (Fischer 2016: 77)

I have my own doubts that conceivability accounts are possibility-first accounts (despite appearances) and have expressed them in (Roca-Royes 2011). Regardless of those, Fischer's point is a structural one. If there are general, probative enough reasons to prefer one type of account to the other two, those reasons should be informing our search for an adequate epistemology of modality. For, as Fischer adds later in the same page, "it's hard to know where to begin in the epistemology of modality, so it's worth exploring any way to whittle down our options".

Both Hale's arguments for the inadequacy of a possibility-first account and Fischer's reasons to think that they fall short of establishing their target claim thus deserve proper scrutiny. Rather than engaging in this task, however, the way I want to contribute (with this paper) to this debate is by doing two other things. First, by arguing, independently, against the adequacy of a necessity-first account. But second, by agreeing with Hale that some knowledge of necessities is basic. In other words, I will contribute to this debate by suggesting the need of a *symmetric* account.

As for the first task: I have already expressed the key rubric of the argument in (Roca-Royes 2017 and 2018). It is also quite a simple argument, which I will present here by means of a running example

- (i) To establish *that my office desk can break* in a necessity-first manner, we first need access to a suitably strong body of relevant known necessities/essential truths about my office desk and determine that they don't rule out its breaking.

¹¹ There is room for more and less extreme variants of asymmetric epistemologies depending, respectively, on whether they claim *all* necessity (or else possibility) knowledge to be epistemically prior to *any* possibility (or else necessity) knowledge or not. Hale himself endorses a moderate version. (For more on this, see (Hale 2013: 253).)

(i) is just a statement of the view applied to our running example. ‘suitably strong’ means here whatever it needs to rule out the epistemic adequacy (in this context at least) of *arguments from ignorance*. Suitable strength is compatible with the body of necessities being empty, so long as we *know* it to be empty. The literature takes it that plausible candidates to belong to the suitably strong body will include, at some level of generality, the principles of *essentiality of origin* and of *essentiality of kind*. But regardless of which and how many elements are in there, the requirement about suitable strength dictates that we should know them all and know them to be all. As Fischer puts it, absence of evidence (about the existence of a necessity) is not enough; we need evidence of absence. (See Fischer 2016: 78.)

- (ii) Given (i), on necessity-first accounts, our rational degree of confidence *that my office desk can break* cannot be higher than our degree of confidence about the basic (de re) necessities relevantly involved, and about the non-existence of further necessities.

Thus, in the running example, our (alleged) *basic* knowledge that unbreakability is not essential to (and thus not necessary of) the desk, that the desk is essentially made of wood, and that the desk is essentially a desk, epistemically grounds our piece of knowledge that the table can break (on the basis of this possibility being determined not to be ruled out by *any of* the table’s essential properties). But not only this: given that *that* is the priority order, our rational degree of confidence in the latter is upper bound by our degree of confidence in the former pieces of knowledge. And yet, I contend:

- (iii) Our confidence that my office desk can break is higher than our confidence about my desk’s essential properties. And this difference in degrees of confidence is (at least as per our current epistemic situation) the rational one.

Hale (2013) distinguishes different levels of probative force of arguments for modal claims. As we have seen in §3.1, he believes that the meaning-based arguments that can be given to establish essential truths about, for instance, (the property of) *being square* are more conclusive than the abductive cases that can be offered in favour of, precisely, “general principles of essence”. (See in particular Hale 2013: §11.3).

I cannot agree more with Hale on this. And I want to add to it: the inductive arguments that can be given in favour of the desk’s breakability are stronger—in terms of probative force—than the abductive arguments supporting essentialist claims. This, I contend, supports the rationality of the different degrees of confidence exhibited. Looking at things with the lens of a social epistemologist, this difference in probative force is, likely, what explains the asymmetric distribution of peer-agreements and peer-disagreements: claims of ordinary possibility are significantly more widely peer-agreed than essentialist claims. It is incompatible with what is pictured by this radiography that our ordinary possibility knowledge is grounded in (basic) necessity/essentially knowledge of the sort required by a necessity-first account.

5. Final remarks and further reading.

It is important to note that the two distinctions in sections 3 and 4 cut across each other. As such, results centred on one of them will not *per se* inform research centred on the other. There’s nothing inherent to, for instance, a necessity-first approach that requires uniformity in

any of the two senses distinguished in §3. Hale’s very own account partially witnesses this claim. For, despite being a necessity-first approach, it is also, for the reasons provided in §3, a non-uniform account in the fine-grained sense. And there’s nothing that would impede an account from being *also* non-uniform in the coarse-grained sense. For instance, an account in the spirit of Hale’s but with the difference that, for the case of some essentialist principles, it endorsed Elder’s empiricist *confirmationism* (rather than Hale’s rationalist abduction-based explanations) would arguably result in a necessity-first account that would be non-uniform in both senses.

Despite, therefore, there being general reasons for thinking that a comprehensive modal epistemology must be symmetric (thus prioritising neither knowledge of necessity nor knowledge of possibility), these reasons do not in turn favour, *per se*, a non-uniform account. Reasons for non-uniformism and reasons for symmetry will likely be found independently of one another.

There are other pieces in the literature that provide an overview of the epistemology of modality, each with its distinct focus, and that, jointly, render a very rich insight into the topic. These include (Evnine 2008), (Fischer 2017), (McLeod 2005), (Strohminger and Yli-Vakkuri 2017), and (Vaidya 2015).

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