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S.I.: NEW DIRECTIONS IN THE EPISTEMOLOGY OF MODALITY

How can we come to know metaphysical modal truths?

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Abstract Those who aim to give an account of modal knowledge face two challenges: the integration challenge of reconciling an account of what is involved in knowing modal truths with a plausible story about how we can come to know them, and the reliability challenge of giving a plausible account of how we could have evolved a reliable capacity to acquire modal knowledge. I argue that recent counterfactual and dispositional accounts of modal knowledge cannot solve these problems regarding specifically *metaphysical* modal truths—leaving us with the threat of skepticism about large portions of metaphysics, and certain other areas of philosophy. I argue, however, that both of these problems look insuperable only if we assume that metaphysical modal discourse serves a describing or tracking function. If we adopt instead a normativist approach to metaphysical modal discourse, which sees the basic function of modal discourse as giving us perspicuous ways of conveying, reasoning with, and renegotiating semantic rules, the problems show up very differently. The modal normativist can give a plausible response to both of the classic problems of how we can come to know metaphysical modal truths.

Keywords Modal epistemology · Modal normativism · Reliability challenge · Integration challenge · Metaphysical modality · Debunking arguments

The problems of accounting for our knowledge of modal facts have been familiar since Hume (1777/1977) and remain as forbidding as ever. Different sorts of modality are commonly distinguished—for example, distinguishing what is physically neces-

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sary from what is logically necessary, and distinguishing both of these from what are thought of as distinctively *metaphysical* necessities. It is our knowledge of metaphysical necessities (and possibilities) I will be concerned with here. The problem of how we can come to know metaphysical modal truths is particularly urgent. For the very thought that we can answer metaphysical questions about the identity and persistence conditions of things of certain sorts, about essences, or about existence conditions, requires that we can know distinctively metaphysical modal truths. Without a plausible account of our knowledge of metaphysical modality, we are threatened with skepticism about metaphysics itself. Moreover, claims about what is possible also play a central role in other arguments in philosophy of language, philosophy of mind, epistemology, and elsewhere in philosophy. To the extent that these are best interpreted as involving claims about *metaphysical* possibility, skepticism about knowledge of metaphysical possibilities threatens to lead to a broader skepticism about knowledge in philosophy.

Two classic challenges arise for those who aim to give an account of modal knowledge. The first is accounting for our knowledge in a way that meets what Christopher Peacocke has called the 'integration challenge': reconciling a plausible account of what is involved in the truth of statements of a given kind with a credible account of how we can know them (1999, p. 1). Most simply put, the integration challenge is a matter of insisting that we reconcile our views about the *metaphysics* and the *epistemology* of a given subject matter. Peacocke takes his integration challenge to be a generalization of the problem Benacerraf raised for mathematical knowledge, which he expressed as the problem of explicating the concept of mathematical truth in a way that would "fit into an over-all account of knowledge in a way that makes it intelligible how we have the mathematical knowledge that we have" (1973).[1]

The second challenge is the 'reliability challenge'. Robert Nozick (2001) raises a version of the challenge for modal knowledge as follows: if we are to be justified in believing something in a given domain, we must have a reliable faculty for forming beliefs of that sort, the existence of which is best explained in terms of natural selection.[2] But, he argues, where modal beliefs are concerned, "…we do not appear to have such a faculty, and it is implausible that evolutionary processes would instill that within us" (2001, p. 122). Since we have no good explanation of why we should have developed a reliable faculty for detecting metaphysical necessity, Nozick argues, we should be skeptical about claims that we have such knowledge—and even about the claim that there are such necessities (2001, p. 125). Nozick concludes that "there are no interesting and important metaphysical necessities" (2001, pp. 120–121).

[1] There are controversies surrounding how to understand the Benacerraf problem (see Clarke-Doane 2016). While Peacocke takes his integration challenge to be a generalization of the Benacerraf problem, Fischer (2017) takes the Benacerraf problem to be a more specific version of the reliability challenge (see below). Nothing here is at stake in how to interpret the Benacerraf problem—and while it is clear that the integration challenge and the reliability challenge are related, it will be useful to be able to consider separately these two sides of the challenge for giving an account of modal knowledge.

[2] This challenge for modality in certain ways resembles Sharon Street's evolutionary debunking arguments in ethics (2006, 2011). Controversies abound, however, about exactly how one should interpret Street's arguments and about whether they can be answered. I will largely leave such controversies to the side here, to focus on the issues that have arisen specifically for the modal case. I will, however, return in Sects. 6 and 7 to discuss some potentially worrying parallels.

Both of these problems arise particularly vividly on a Lewisian approach to modality, but they do not arise there alone. The integration challenge is notoriously problematic for rationalist approaches to modal epistemology—at least if we combine these with a form of realism about metaphysical modal facts. For, as Anand Vaidya puts it, we are left with a puzzle: "Given that modality is mind-independent and conceivability is mind-dependent, how are the two connected such that conceivability provides evidence of possibility?" (2017, Sect. 2.2).

In response to the difficulties of rationalism, there has been a recent resurgence of interest in empiricist approaches to modal epistemology. Barbara Vetter (2015) aims to solve the integration problem by treating modal knowledge as knowledge of modal properties of this world such as potentialities or dispositions—undercutting the feeling of inaccessibility. However, I will argue, this model of modal knowledge (however plausible it may be for knowledge of empirically grounded counterfactuals and dispositions) does not solve the integration problem in a way that shows how those distinctively *metaphysical* modal truths that play a core role in metaphysical debates may be known. Similarly, Timothy Williamson aims to meet the reliability challenge with an empiricist approach. I will argue, however, that his account is at best able to respond for the case of knowledge of empirically grounded counterfactuals, and does not extend to solve the problem for the *metaphysical* necessities typically of interest in philosophical debates—and about which Nozick argues for skepticism.

The main aim here, however, is not negative but positive. I will not be aiming to show that these problems are *insuperable* for other accounts of modal knowledge, nor that they provide decisive reason to reject some form of modal realism. Instead, while I will begin in Sects. 1 and 2 by reminding us of the formidable problems faced by other views, and arguing that these are not overcome by recent empiricist approaches,[3] the main aim in this paper is to argue that there is a better approach to the problems of modality on which these challenges clearly *can* be met. That approach is the 'normativist' approach to metaphysical modality, which I have argued for elsewhere (2007b, 2009, 2013, and in progress). I will briefly review the normativist approach in Sect. 3. Taking this approach (as I will argue in Sects. 4 and 5), gives us a clear response to the integration challenge, as well as a promising route of reply to the reliability challenge, giving it substantial advantages in managing the challenges of the epistemology of metaphysical modality clearly and directly.

1 The integration challenge

The integration challenge—of reconciling an account of what is *involved* in the truth of modal claims with a plausible account of how we can come to *know* them—arises in a particularly vivid form for David Lewis's (1986) modal realism. For Lewis thinks of modal knowledge (or at least, knowledge of what is necessary and of what is possible but not actual) as knowledge *about* what is the case at spatio-temporally and causally disconnected worlds. But, given the inaccessibility of those worlds, he "arguably makes modal truth radically inaccessible" (Peacocke 1999, p. 3). And indeed, if modal

[3] At least not for the case of *metaphysical* necessities.

knowledge involves knowledge of worlds spatio-temporally and causally disconnected from ours, it is particularly hard to see why we would have any reason to think our usual methods (of reasoning combinatorially, engaging in thought experiments, etc.) are any good at acquiring such knowledge.

Knowledge of possibility and necessity on Lewis's view, of course, amounts to knowledge about what is the case in some or all worlds. It is easy enough to acquire some knowledge of what is possible, via inferences from what is actual. Knowledge of what is necessary or *merely* possible is more difficult, however, since on a Lewisian view it would seem to require knowledge of what goes on at worlds other than the actual world. But given that these worlds are causally isolated from ours, there can be no causal account of our ability to know the facts in those worlds that parallels causal accounts of knowledge of the facts of this world. Of course, Lewis aptly notes that causal theories of knowledge founder on mathematical knowledge anyway (1986, p. 109)—but that is not to provide any positive account of how either *can* be known. Moreover, one might expect there to be important disanalogies in the stories to be told about how we can know mathematical truths versus truths about Lewisian worlds, given that the former concern abstracta (and so are more reasonably thought to be accessible via a priori methods) while the latter, by Lewis's lights, concern concreta. Indeed, as Brian Skyrms argues (1976, p. 326), if Lewis' worlds are supposed to be concrete, one might expect knowledge of them to require the same sort of evidence as one expects for knowledge of other concreta. By treating his worlds as entities of the same kind as our actual world, Lewis sets up the expectation that they should be knowable by the same sort of means—yet this option seems completely foreclosed by their spatio-temporal and causal isolation.

Lewis offers no general account of how we can acquire knowledge of modal facts, saying only that the problem of giving an analysis of modal knowledge is "a problem for everyone (certain skeptics and conventionalists excepted)" (1986, p. 113). He offers instead a story about how we *in fact* come to hold the modal *beliefs* we do—by way of general reasoning from principles of recombination, guided by imaginative experiments (1986, pp. 113–114). The trouble is, however, that Lewisian modal realism makes it impossible to see why these principles of recombination, guided by imaginative experiments, should be any good whatsoever at revealing to us what is going on in these independent, spatio-temporally and causally isolated worlds. As Barbara Vetter puts it, "It seems like black magic that the epistemology of Recombination should just happen to get the metaphysics of possible worlds right, given that there is no connection by which the latter might have informed the former" (2015, p. 13).

A promising approach is to try to solve the integration challenge by bringing modality back to *this* world, enabling us to acquire knowledge of this-worldly modal truthmakers through something like standard empirical methods. Along these lines, Barbara Vetter (2015) argues that possibility is anchored in potentialities of (actual) individual objects, where potentialities include both abilities and dispositions of individual objects. Such potentialities might be thought to provide this-worldly truthmakers for modal claims, rather than appealing to isolated possible worlds. As Vetter puts it, like Lewis' view, "it anchors possibilities in objects. But its objects are just the ordinary objects of this, the actual world, with which we are in regular epistemic

contact" (2015, p. 11). As a result, a chief advantage of the dispositional account is supposed to be its ability to demystify modal epistemology:

> Dispositionalism… avoids the drawback of a possible-worlds metaphysics by anchoring possibilities in the right kind of objects: actual objects, with which we have epistemic contact. By anchoring them in the *dispositions* of such objects, dispositionalism promises a plausible story about the epistemology of modality. We clearly have a great deal of knowledge about the dispositions of the individual objects around us… We learn early on that glasses are fragile, that sugar is water-soluble, and that some people are irascible… we clearly *have* such knowledge, whatever exactly our account of it is; and… such knowledge is not a matter of philosophical speculation, but of both practical and scientific knowledge about the world (2015, pp. 11–12).

Given that Vetter aims to ground all of modality in dispositions, this account then provides hope of giving an empirical account of knowledge of modality, "The epistemology of metaphysical modality may then just be a generalization of those empirical ways of knowing about dispositions" (2015, p. 12). And this, she claims, provides the basis for a good answer to Peacocke's integration challenge—far better than Lewis could give. For we can understand what is involved in modal truths as correctly describing the potentialities in the world, and also see how those can be known through our standard empirical ways of knowing about dispositions (Vetter 2015, p. 12).

Others have also tried to ease the integration challenge by treating modal properties as features of this world that could be known via broadly empirical methods. Otavio Bueno and Scott Shalkowski aim to develop an "empiricist-friendly approach to the epistemology of modality that does not rely on conceivability" (2015, p. 672). Their modalist view accounts for knowledge of the merely possible by appealing just to our knowledge of 'the relevant modal properties of the objects under consideration' (2015, p. 680). They suggest that we can know, for example, that it is possible for the table to break, even though it hasn't broken, by knowing, for example, that it is made of wood, by knowing various claims about the relative strengths of bonds of both internal and external forces, and so on (2015, p. 679).[4] Similar empiricist views are developed and defended by Felipe Leon (2017) and Sonia Roca-Royes (2017). Leon argues that the modal knowledge we have (which he limits only to 'nearby' cases) traces "back to our knowledge of the actual world" (2017, p. 255). For example, one may know that a desk can be moved or a car painted blue via inductive knowledge of similar cases in which such changes are actual. Roca-Royes (2017) only aims to give

[4] Carrie Jenkins develops a different response, arguing that our concepts (say, of *vixen* and *female*) are empirically grounded in 'structural features of the world' (say, that the property of being a vixen 'includes' the property of being female) (2010, pp. 268–269). By accepting this link, she aims to show how we can legitimately accept that conceivability can be a guide to modal knowledge, while retaining a broadly empiricist approach to modal knowledge (2010, p. 262). Her account, unlike Williamson's and Vetter's, is clearly directed towards knowledge of metaphysical modalities (including those we think of as reflected in conceptual truths), not just attributions of dispositions. But it is hard to see how these 'structural features of the world'—the 'containment' of one property in another, for example—could be thought to be empirically detected. These are not observations of concreta at all, but seem much closer to discoveries of truths about essences, which again seem not to be simply sensorily detectable and to raise the problems of modal knowledge all over again.

an empiricist epistemology of *de re* possibility knowledge about concrete entities—not the full range of relevant metaphysical necessities and possibilities. In such cases, she argues, as knowing that this table can break, or that Kennedy could die of a heart attack, our knowledge of unrealized possibilities arises via "extrapolation from knowledge about some other, similar entities' realized possibilities" (2017, p. 233).[5]

Views that take modal properties to be features of this world, which we can come to know through broadly empirical/scientific means, certainly have the potential to ease at least some of the problems of modal epistemology Lewis leaves us with, and so have seen increasing popularity in recent years (see, e.g. the various essays in Fischer and Leon 2017).[6] But it is important to notice that the focus of these accounts is on ascriptions of dispositions (the glass has the potentiality to break, the sugar is soluble in water, etc.) and empirically grounded counterfactuals (if I were to drop the glass, it would break). But such dispositions and counterfactuals are the modal properties of interest to *science* more than to *metaphysics*—and are crucially different from the modal claims typically at issue in metaphysical and other strictly philosophical debates.

It is much less clear that anything along the lines of an empirical account of modal knowledge can be of use for specifically *metaphysical* modal claims. Roca-Royes is admirably upfront on this point. She argues directly that the empirical method she defends for coming to know certain *de re* unrealized possibilities for concrete entities does not extend to give us knowledge of whether essentialist claims (about, for example, the essentiality of origin or essentiality of kind) are true (2017, p. 239). Indeed, she argues that gathering empirical evidence in favor of or against such claims is impossible (2017, p. 239). "What I am suggesting as epistemic grounds for basic and simple modal facts cannot constitute grounds for or against the long-controversial essentialist claims…" (2017, pp. 241–242). Similarly, she limits her results to unrealized possibilities for *concreta,* and suggests that "an epistemology of modality for abstracta requires a very different treatment" (2017, p. 243). One important feature Roca-Royes identifies is that possibility claims for concrete entities are testable—we can test the claim that wooden tables are breakable, say, by attempting to break some (2017, p. 232). These possibility claims also, we might add, come with *predictions* about what will happen if we try to break it (or things like it)—it is because there are such predictions that the claims are testable. Leon develops his similar approach

[5] Bob Fischer defends a somewhat different empiricist approach, which takes our modal knowledge to arise from our theories: "if you have reason to believe that a theory is true… you have reason to believe that certain models correspond to genuine possibilities" (2017, p. 274). As Fischer acknowledges, the approach seems to work less well for 'mundane modal claims' (for example that my shirt could be striped not plaid) than for scientific modal claims. While he tries to show how it can be extended to knowledge of counterfactuals like 'if my wife weren't at home she'd be at work', it again is unclear how it could be extended to more purely philosophical modal claims about when we have the same person, or to whom our terms refer. And the thought that it would work for these cases relies on the controversial claims that theoretic virtues (apart from empirical adequacy) are truth-conducive (Fischer 2017, p. 278), and that ontological claims are confirmed with our scientific theories. See my (2017) for doubts about both of these claims.

[6] Such empiricist views of the epistemology of empirical counterfactual and dispositional claims also fit quite naturally with a normativist view of these counterfactuals as *explaining* a state of affairs or *justifying* an assertion on empirical grounds (see Sellars 1958), and so might be able to form part of a combined epistemological approach for the modal non-descriptivist.

for cases such as knowing that a desk can be moved or a car can be painted blue, but aims to extend it to certain 'nearby' philosophical cases, such as knowledge that there can be justified true belief without knowledge. But these seem fundamentally different types of case, in a way that should give us pause. In the desk and car cases, we have inductive reason to believe that such changes are possible, and the view has predictive consequences that we can test out: there is prospect of mistake, if we push as hard as we can and the desk won't budge, or the paint constantly changes to silver when applied to the car, we may have reason to revise our judgment of possibility. But there is no such prospect in the knowledge case—there is no predictive content to these cases—they tell us nothing about what we should expect to happen, and seem to be entirely untestable. The issue is rather whether in certain cases the observer is *properly described as* having *knowledge* (see Leon 2017, pp. 257–258).

There are still more decisive reasons to think that–even if observation or perception (and/or the similarities and generalizations we come to learn on that basis) enables us to learn that sugar cubes are disposed to dissolve in water, that glasses tend to break when subjected to certain forces, or that this table could collapse—this doesn't generalize to give us a method for coming to know metaphysical modal truths. For we cannot in the same way come to know that a statue cannot survive a change in shape while the lump of clay that composes it can. Nor is it plausible to think that we can learn in that way whether personal identity depends on psychological continuity or the survival of the particular organism, or whether one can have the same ancient work of art after conservators replace some of its parts—for unlike dispositional claims, here the disputants can agree about all the empirical facts, and agree about all predictions of 'what will happen' (couched in neutral terms), and yet disagree in their modal conclusions.

As the grounding problem[7] makes evident, the distinctively *metaphysical* modal features at issue in characteristic metaphysical debates are cases in which we have *the very same empirical information, and same physical laws and properties,* and yet come to different modal conclusions. For example, there is no difference in the physical properties of the statue and the clay, yet the statue and clay are commonly thought to have different modal properties: the first being incapable of surviving a squashing, and the second being capable of surviving it. We might be able to empirically discover differences in the dispositions of sugar versus sand for solubility by throwing each sample in its own beaker of water and observing what happens. But there is no parallel prospect for empirical discovery of differences in the modal properties of the statue versus the clay of which it is constituted. Nor can any empirical observations or scientific laws alone tell us whether a work of sculpture can survive replacement of certain parts, or whether a work of music must be created. Similarly, there are typically no differences in the *empirical* information available to the defender of psychological-continuity versus animalist views of personal identity: defenders of these views are not working from different data sets that lead them to different conclusions on the basis of different empirical information. As Derek Parfit puts it, in many difficult cases, where people go different ways on questions of personal identity (borderline cases of

[7] For discussion of the grounding problem, see Burke (1992) and Bennett (2004).

psychological and/or physical changes, cases of division), we "could know the full truth about this outcome without choosing one of these descriptions", (1984, p. 260).

For these reasons, however plausible an empirical or modalist view might be of knowledge of dispositional properties or even of empirically-grounded counterfactuals, it cannot be the solution to the epistemology of metaphysical modal disputes. Much the same seems to go for many other modal claims used centrally in philosophical debates. Whether, in Kripke's (1980, pp. 83–84) famous case, the name "Gödel" *would* apply to Schmidt, if it turned out that Schmidt were (unbeknownst to the world) the true discoverer of the incompleteness of arithmetic, is not something we can determine by attending to empirical information. Whether Swampman could think of or refer to objects in the world, or one can have knowledge of a perceived (real) barn while travelling in fake barn country, similarly, are not issues to be decided by empirical or scientific means. Moreover, those who have different views about such cases generally have no differences in their empirical information or predictions (neutrally described). This is precisely the point according to many metaphysicians: that no simple observation, test, or prediction can resolve deep metaphysical disputes, in the way such tests could resolve disputes about what is soluble or fragile.

In sum, even if we try to diminish the integration challenge by appealing to modal features of this world rather than other worlds and thinking of them as knowable in broadly empirical ways, we still do not solve the challenge for the sorts of modal properties at issue in the debates of metaphysics, and many of those of philosophy (as opposed to, say, those of chemistry). For there does not seem to be the prospect of an empirical route to explaining how we could come to know these distinctively metaphysical modal properties. In each case, our empirical information could be the same, and yet our modal beliefs differ. This is just the grounding problem, arising in a new, epistemological, guise. The integration challenge remains for accounts of *metaphysical* modality.[8]

2 The reliability challenge

The reliability challenge Nozick presents for modal knowledge is the challenge of giving a naturalistic story about how we could have evolved to have a reliable faculty for coming to know modal truths. In one form (paralleling the original form, which Benacerraf (1973) presses for mathematical knowledge) the challenge arises given the fact that other possible worlds or modal features of this world seem incapable of having causal impact on our beliefs. If we think of a causal relation as what, in other cases, ensures reliability, then the lack of causal commerce with modal 'truthmakers' seems to undermine our claim to have reliable knowledge of modality. But (as Clarke-Doane (2016) and Fisher (2017, p. 270) make clear), a general challenge remains even for those who reject causal theories of knowledge. As Fischer puts it, "…the critic can reframe the problem in terms of a demand for an explanation of our reliability about

[8] Of course, if one denies the existence of one or both of the statue and lump of clay, no distinct modal properties need to be accounted for. For responses to several such eliminativist arguments, see my (2007a).

modal matters, and abandoning the causal theory of knowledge won't help with this version of the problem" (2017, p. 270).

Anand Vaidya (2017) analyses Nozick's challenge as arising given two assumptions: first, that a belief is justified only if we have a reliable belief-forming mechanism about that domain, and second, that "evolution by natural selection provides the best explanation for which reliable belief forming mechanisms we possess" (Sect. 1.2.4). This seems to be the form of the challenge that Nozick is concerned with for modal truths, for he suggests that the debates about what's possible "would be avoided if we possessed a faculty of reason that could directly assess the possibility of general statements and of their denials", but goes on to say, "However, we do not appear to have such a faculty, and it is implausible that evolutionary processes would instill that within us" (2001, p. 122). Like the integration challenge, this reliability challenge arises in a particularly vivid form for Lewisian modal realism. As Nozick puts it, "Since our ancestors evolved in the actual world, there were no selective pressures to reward accuracy about all possible worlds, and there was no handicap to being right only about the actual world," (2001, p. 122)—so it is implausible that we would have evolved a faculty to reliably assess whether something (non-actual) is possible or necessary.

Tim Williamson responds to Nozick's reliability challenge by arguing that we do not need to posit a separate faculty for detecting metaphysical necessity, or to give an explanation of how we might have evolved a separate capacity. Instead, he aims to show that "the ordinary cognitive capacity to handle counterfactual conditionals carries with it the cognitive capacity to handle metaphysical modality" (2007, p. 136). The capacity to evaluate counterfactuals, he argues, can be given an evolutionary explanation, since it is of great use to us in facilitating learning from experience, in improving future performance in various tasks, and discovering causal connections (2007, pp. 140–141). And metaphysical modal thinking, he argues, is logically equivalent to a special case of counterfactual thinking, since a proposition is necessary if its negation counterfactually implies a contradiction (2007, p. 157). So, he argues, there is no special problem in accounting for metaphysical modal knowledge. We need posit no special faculty of intuition, just a capacity to evaluate counterfactual conditionals.

But this just pushes the question back: how do we come to know counterfactual conditionals? Williamson is upfront in accepting that "there is no uniform epistemology of counterfactual conditionals" (2007, p. 152). Nonetheless (though he notes that this is neither always necessary nor always sufficient), he suggests that the most distinctive means of evaluating them involves imaginative simulation, in a way that makes use of our background knowledge and experience of 'how nature works':

> We can … schematize a typical overall process of evaluating a counterfactual conditional thus: one supposes the antecedent and develops the supposition, adding further judgments within the supposition by reasoning, offline predictive mechanisms, and other offline judgments… Some but not all of one's background knowledge and beliefs are also available within the scope of the supposition as a description of the counterfactual circumstances, according to complex criteria (the problem of cotenability). To a first approximation: one asserts the counter-

> factual conditional if and only if the development eventually leads one to add the consequent (2007, p. 153)

So, for example, if we are evaluating the truth of the counterfactual "If the bush had not been there, the rolling rock would have ended up in the lake", we can know its truth by imaginatively rolling back history to a time shortly before the rock started to roll, and then (using our expectation-forming capacities 'off-line') rolling forward again, to imagine what would happen if the bush weren't there, while keeping patterns of development "as close as possible to the normal ones" (2007, p. 150).

This imaginative rolling forward of scenarios, using our predictive capacities 'off-line' may give an acceptable account of our knowledge of empirically-grounded counterfactuals such as whether the rock would have fallen into the lake. But Nozick was not expressing a skepticism directed at our ability to know that the rock would have fallen in the lake. Instead, he was arguing for skepticism about our knowledge of claims about distinctively *metaphysical* necessities and possibilities. Williamson acknowledges that his account does not generalize to knowledge of all counterfactuals. Counterfactuals such as "If twelve people had come to the party, more than eleven people would have come to the party" seem to involve inference rather than imaginative simulation, while others such as "If twelve people had come to the party, it would have been a large party", he suggests, are neither involved in off-line prediction nor in pure inference (2007, pp. 151–152).

The problem from our point of view is this: the claims of metaphysical necessity and possibility typically at issue in arguments in metaphysics and elsewhere in philosophy are *not* analogous to claims about whether the rock would have rolled into the lake.[9] When we ask, "If Mary's brain were successfully transplanted into another body, would Mary survive?", "If 'Kubla Khan' were translated into Chinese, it would be the same poem?", or "If Schmidt were the true discoverer of the incompleteness of arithmetic, would the name 'Gödel' refer to Schmidt?", we are not rolling back a scenario in time and predicting, off-line, its further development. The counterfactuals involved here are (if anything) most analogous to the one about whether, if twelve people had come to the party, it would have been a large party. It is claims to know the answers to these sorts of modal questions that Nozick is concerned about—for his target is to call into question philosophical arguments by intuition: "Philosophers who give great weight to intuitions need to offer some account of why such intuitions are reliable and are to be trusted; at least, they need to sketch how we would have acquired a reliable capacity of this sort" (2001, p. 125). But Williamson says very little of a positive nature about how a counterfactual like "if twelve people had come to the party, it would have been a large party" can be known—he merely insists that it cannot be known simply by applying general rules of inference (for it might involve knowing if the party was larger than average, which requires knowing what the average size of a party is). Nozick's skeptical challenge was to explain how we could come to know specifically *metaphysical* claims of necessity and possibility, but Williamson does nothing to answer this challenge. Whatever its fate in defending knowledge of

[9] As Malgren (2011, pp. 311–312) aptly insists, the capacities we use in evaluating counterfactuals may vary, depending on the *content* of the counterfactual involved.

empirically-grounded counterfactuals, a Williamson-style account does not solve the problem for knowledge of the kinds of modal claims centrally at issue in metaphysics, and often at issue elsewhere in philosophy.

3 The normativist approach

The integration challenge and the reliability challenge originally arose as problems for traditional approaches to metaphysical modality, which assume that modal discourse serves the function of *describing* either some features of our world, or features of other (possible) worlds. The candidates for what is described vary of course, with some suggesting that there are modal features or properties of this world, or modal facts, or that the truthmakers involve possible worlds; and others suggesting that in the absence of good truthmakers we should be eliminativists or fictionalists about the modal. Vaidya describes the integration challenge explicitly in terms of truthmakers: "The integration challenge for modality is to reconcile the mind-independence of modal claims with an epistemology that shows how we can know modal claims even though human thinkers do not bear causal relations to the relevant truth-makers for modal truths" (2017, Sect. 2.3). But the challenge can be expressed in that way only as long as we assume that modal claims are descriptive claims that require (this or other-) worldly truthmakers. Similarly, the reliability challenge is often presented as asking that we give reason for thinking that there is a reliable module for 'detecting' metaphysical necessities (Vaidya Sect. 1.2.4)—assuming that modal discourse should serve a kind of tracking function, so that (if it works properly) we can detect and keep track of the modal facts we aim to describe.

But we needn't—and shouldn't—assume that modal discourse has a descriptive function. Non-descriptivist views of modality of various sorts were popular in the first half of the twentieth century, in the work of Schlick (1918), Ayer (1936/1952), Wittgenstein (1922/1933), Ryle (1949) and Sellars (1958). More recently, Simon Blackburn has argued that allowing possibilities an insisting on necessities "is not describing anything… It is more like adopting a norm…" (1993, p. 60), while Robert Brandom (2008) has developed the idea that modal vocabulary enables us to explicitly state the commitments that are implicit in what one is *doing* when one *uses* ordinary empirical vocabulary. Along these lines, I have elsewhere (2007b, 2009, 2013, and in progress) developed a 'normativist' approach to metaphysical modality. Since it speaks most directly to the relevant questions, I will focus primarily on that form of modal normativism here. There is not space to develop and defend the view here. Instead, I will focus on showing how someone who accepts a normativist approach to metaphysical modality may address these central challenges for modal epistemology in a clear and convincing way.

On the normativist view, basic metaphysical modal claims do not have the function of tracking or describing special modal features of this world—or of describing other possible worlds. Instead, on this view, metaphysical modal language serves the function of expressing, teaching, conveying, or (re-)negotiating semantic rules (or their consequences) in particularly advantageous ways. Expressing semantic rules in the form of modal object-language indicatives enables us to make the regulative status of

the claims explicit, to make explicit our ways of reasoning with and from semantic rules, and to convey permissions as well as requirements. In some cases, modal discourse is used not to convey those rules we think there *are,* but to press for those rules we think there *should be*—renegotiating how the relevant parts of language are *to be used*.[10]

On this view, metaphysical modal language follows certain inferential rules. For example, where we have an object-language statement of a semantic rule (or what follows from it, perhaps by plugging empirical facts into place-holders), we are entitled to add 'necessarily'. So, for example, given the semantic rule that one may only apply 'bachelor' where 'unmarried' may be applied, we can express that in the object language, and add 'necessarily' (in a way that makes that normative status explicit). Thereby, we can arrive at the object-language modal indicative: "Necessarily, all bachelors are unmarried".

Adopting a deflationary theory of truth enables normativists to classify modal statements as true or false without their having to be made true[11] by modal features of the world (or features of other possible worlds).[12] Given the equivalence schema: <p> is true iff p, we can infer from "Necessarily, all bachelors are unmarried", to "'Necessarily, all bachelors are men' is true". The uncontroversial equivalence schema applies just as well to modal as nonmodal indicatives, so there is no problem with the normativist allowing that modal claims may be true. Once we have allowed that basic modal claims may be true or false, it is clear that they may be used in standard forms of truth-conditional reasoning.

Moreover, once we allow that modal claims can be true, we can use them as premises in trivial inferences, and (employing the easy approach to ontology I argue for elsewhere (2015)) infer from, 'Necessarily P' to "It is a fact that it is necessary that P", thereby concluding that modal facts exist. Similarly, from a *de re* modal claim such as "X is necessarily p" one may trivially infer "X has the modal property of being necessarily p" and conclude that there are modal properties.

In short, the normativist begins by holding that metaphysical modal discourse serves a fundamentally normative function of enabling us to explicitly convey, renegotiate, and reason with (and from) semantic rules in perspicuous ways. But nonetheless the normativist is able, from that basis (and without positing modal truthmakers)

[10] These are those cases in which modal terms are used in arguments that Carnap (1950/1956) would have counted as engaging in 'external' claims, where the speakers are engaged in what David Plunkett and Tim Sundell (2013) have called "metalinguistic negotiation". On this point, see also my (2016). I will largely leave such uses of modal terminology to the side in this paper.

[11] On this approach, then, there is no appeal to truthmakers, considered as features of the world that *explain* what *makes* the relevant sentence true. Cf. my (2015, pp. 157–158).

[12] We needn't here decide among deflationary views of truth. Other alternatives include following prosententialists (Grover et al. 1975) in taking the claim: "'Necessarily p' is true" to be just a matter of (re-)asserting 'Necessarily p', so the standards governing saying: "'Necessarily p' is true" do not diverge from those governing saying: 'Necessarily p'. The standards for saying 'Necessarily p' are that p is an object-language expression of a rule or its logical consequence. Blackburn offers another route, suggesting that the quasi-realist take truth in the relevant domain (about which we are being quasi-realist) to be a matter of *correctness* according to the relevant standards—where these standards need not be those of correspondence to reality (1993, p. 55). For a helpful comparative evaluation of different deflationary theories of truth, see Horwich (2010, Chapter 2).

to reconstruct the idea that some metaphysical modal claims are true, that they express propositions, and that there are modal facts and modal properties. The normativist approach thus gives us a form of realism about modal facts and properties, though it is what I elsewhere have called a form of 'simple' realism, rather than a form of 'explanatory' realism that takes modal facts or other possible worlds to be 'posited' in order to 'explain what makes our modal claims true' (Thomasson 2015, pp. 145–158). Instead, trivial inferences ensure that we are committed to claims that there are modal facts and properties (or even other possible worlds) *in the only sense these terms have*—but they are not treated as explanatory posits.[13]

Another virtue of the normativist approach is that (as Theodore Locke (2018) has argued) it is not just regarding traditional modal matters that it can provide a useful analysis. As Daniel Nolan puts it, "the twenty-first century is seeing a hyperintensional revolution" (2014, p. 149), in which claims about grounding, essences, and the like are becoming increasingly important in metaphysics. Such claims cannot be modeled merely in traditionally modal terms, as they are *hyperintensional*—that is, they introduce contexts in which in which terms that have the same extension across all possible worlds nonetheless cannot be substituted in a truth-preserving way. So, for example, 'Socrates exists' and '{Socrates} exists' are true in all (and only) the same possible worlds, yet the truth of the latter is commonly said to be grounded in the truth of the former, and not vice versa. As Locke (2018) argues, the modal normativist is well positioned to account for such claims, by attributing the relevant asymmetries to asymmetric relations between the concepts: "We need modal terms with these formal properties [of hyperintensional terms] …because there are often important conceptual asymmetries or conceptual interdependencies between expressions in our language that bear on the competent and appropriate use of those expressions" (2018, p. 103). For example, the application conditions for '{Socrates}' appeal to, and must be given in terms of, those for 'Socrates', but the reverse is not the case (2018, p. 139). I shall leave development and defense of this idea for elsewhere, but it is important to note that ultimately a normativist approach may be able to demystify the epistemology not only of modal but also of hyperintensional, or 'post-modal' claims in metaphysics.[14]

[13] For, as I argue elsewhere (2015, pp. 156–157), any such attempted explanation would just be a dormitive virtue explanation. If we become entitled to say, 'Barak Obama has the property of being necessarily human' on the basis of a trivial inference from the true claim 'Barak Obama is necessarily human', then we cannot appeal to the modal property to explain the truth of the original modal claim. Instead, reference to the modal property falls out of the hypostatization from the original truth. So, this could no more 'explain' than we can explain why the poppies make us sleepy by (using the hypostatized trivial inference and) saying 'poppies have the dormitive virtue'.

[14] One question commonly raised is how a given approach to modal epistemology can account for our relative confidence in what Peter van Inwagen (1998) has called 'everyday' versus 'remote' modal truths. One point which I aim to make clear is that we should distinguish types of modal truths—separating empirical dispositional or counterfactual claims from metaphysical modal claims. Where the former are at issue, a story such as that given by Roca-Royes (that it is a matter of how close the imagined case is to experienced cases) may be suitable (2017, p. 234). It is the latter that the normativist is concerned with, and here again an account can be given: those 'nearby' or 'everyday' truths in which we are confident of our modal knowledge—say, that a person typically retains her identity after moving a few feet to the left—are those in which the rules governing our concept are determinate, and apply to the case. Those in which we feel uneasy, in which the cases are remote (such as Parfit's cases of teleportation, division, gradual complete psychological or physical replacement) are cases that push the limits of our concepts, presenting cases that

For the present, the central point is to emphasize that once the option of treating modal discourse non-descriptively is on the table, both kinds of challenge show up differently. The integration challenge can no longer be thought to arise in part because modal truth-makers do not bear a causal relation to human knowledge. For we no longer assume that modal truths require truthmakers with which we'd have to come into contact to acquire modal knowledge. And the reliability challenge can no longer be thought of as requiring us to show how we could have evolved a faculty for 'detecting' or 'tracking' the modal facts, or features of other possible worlds. For the normativist denies that modal discourse is supposed to serve any such tracking function. Both of these challenges, in their classic form, rely on the descriptivist assumption, thinking of our claims about metaphysical necessity and possibility on the model of claims aiming to track, co-vary with, and describe certain features of our environment: as if they were detecting features of distant planets, or ordinary properties or facts of our immediate surroundings.

This is not to say that no problems in the vicinity remain even once we give up the descriptivist assumption—we still want a *positive* account of how we *can* acquire modal knowledge. Along those lines, we still face the most basic (and neutrally expressed) form of the integration challenge: reconciling a plausible account of what is involved in the truth of statements of a given kind (whatever that might be—not presupposing a truthmaker account) with a credible account of how we can know them. And we still want a naturalistically respectable account of how we can acquire modal knowledge—but this will no longer be put as a problem of how we could have evolved a faculty to detect features of isolated worlds, or modal properties of this world. So, the reliability challenge should not be thought of as a demand to explain why it would be an advantage to evolve reliable modality detectors, but rather of what the advantage is of being able to modalize (well): to speak modally, be responsive to, and express modal truths.

I turn next to address both of those remaining challenges. I will argue that modal normativism opens up a clear and plausible route to respond to both of these central problems of modal epistemology. This is a very substantial advantage.

4 Meeting the integration challenge

It is easy to see how the integration challenge becomes a problem if we assume that metaphysical modal statements have a descriptive function: of tracking and co-varying with features they describe, which can serve to explain their truth. To the extent that the descriptivist assumption informs our thinking, we are prone think of our claims about metaphysical necessity and possibility on the model of claims aiming to track, co-vary with and describe features of distant planets, or features of our actual environment. Despite their crucial differences, the views of both Lewis and Vetter fall into this pattern: both 'posit' entities (possible worlds, in the case of Lewis, potentialities in this world in the case of Vetter) such that our modal knowledge must consist in knowing

Footnote 14 continued
our concepts do not give a determinate answer to, and so cases that call for decision rather than simple application of the concept.

facts about these other worlds, or the potentialities in this world. In Lewis's case, however, there seems to be no prospect of giving a credible account of how we know these other worlds—for there is no prospect of any kind of causal connection to the other worlds. Vetter's work seems like a clear improvement in this regard, for we seem to have fewer barriers to knowing this-worldly potentialities, and we might be thought to have the basis for empirical knowledge of dispositions such as solubility. But such empirical knowledge as we could gain of potentialities seems itself unable to give any account of how we could come to know the sorts of *metaphysical* modal truths that are centrally at issue in the debates of metaphysics and (often) elsewhere in philosophy (rather than those modal truths that are relevant, say, in chemistry).

On the other hand, if, with the normativist, we think of metaphysical claims as serving a fundamentally different function, the integration challenge shows up very differently. How can a normativist reconcile an account of what is involved in the truth of a modal claim with a credible account of how we come to know the truth of modal claims? The normativist can give an account of what is involved in the truth of a modal claim: where a statement P is an object-language expression of an actual semantic rule (or consequence thereof), one is entitled to say 'Necessarily P'; and from 'Necessarily P', one is (by the T-schema) entitled to say "<Necessarily P> is true". Here we have an account of modal truth that enables us to distinguish true from false claims of metaphysical necessity without treating what it is for a claim of metaphysical necessity to be true as involving being *made true* by features of all possible worlds, or special features of this world.

How, on the normativist view, can we come to know such necessary truths? Once we give up the descriptivist assumption, and give up assuming that there are analogies between knowledge of modal properties and knowledge of natural properties detected in the environment, we also lose the assumption that there must be a causal relation to the relevant facts or features to legitimate the claim to have knowledge of them. The normativist doesn't think of acquiring modal knowledge as a matter of coming to see new, different features of the world, still less of perceiving some other possible worlds or a platonic world of essences. Instead, the normativist demystifies modal knowledge by considering the move from *using* language to knowing *basic* modal facts to be a matter of moving from *mastering* the rules for properly applying and refusing expressions (as a competent speaker), to being able to explicitly *convey* these rules (and what follows from them) in the object language and indicative mood. (Though of course you may not be able to *recite* the rules even if you have *mastered* them, just as one may master grammatical rules without being able to recite them).

Competent speakers demonstrate tacit modal knowledge in their ability to properly use (apply, reapply, refuse) ordinary (non-modal) terms. But to acquire explicit modal knowledge we must gain an explicit understanding of the rules that most competent speakers may lack despite their ability to follow the rules. We can acquire a more explicit grasp of the underlying semantic rules by considering the multiplicity of actual or imagined cases in which the terms may properly be applied or refused, and analyzing their commonalities. By using that sort of thought experiment, one may gain a more systematic and explicit grasp of what the rules are. Working out the application conditions for our sortal terms gives us the means for expressing the most basic (conceptually but not empirically relevant) existence conditions for members

of the kind. Discerning the co-application conditions for our sortal terms gives us the means for expressing the most basic identity and persistence conditions of members of the kind. When we come—via this appropriate route from semantic competence—to express these in object-language indicatives, adding 'necessarily' to make explicit the regulative status, and so to state modal truths arrived at via the appropriate route, we can be said to have modal knowledge.[15]

While this is the way of coming to know the most basic truths about what is metaphysically necessary, it is not the only way to come to know metaphysical modal truths. One may also consider what follows from the rules, either as combined with each other or with empirical facts. Empirical discoveries, moreover, may contribute to knowledge of more detailed, *derivative* modal facts. For example, it may be a conceptual truth (knowable by the above sort of conceptual analysis) that whatever microstructure the baptized sample has, water necessarily has that microstructure, but a derivative, empirically discoverable truth that water necessarily has the microstructure H_2O.[16] But we can acquire knowledge of this derivative modal claim by way of empirical investigation (into the microstructure of *that* stuff) and knowing the more basic modal truth that, *whatever* microstructure water has, it has necessarily.

In any case, the normativist has available a plausible and fitting way of reconciling what it is for modal claims to be true with a credible account of how we come to know modal truths. What it is for a claim of metaphysical necessity to be true is for it to give an object-language expression of an actual semantic rule (or consequence thereof). And we can come to know the truth of basic claims of metaphysical necessity by starting with semantic competence and coming to gain explicit knowledge of the actual semantic rules involved, and/or by reasoning through their consequences, perhaps as combined with empirical truths.[17] This gives an entirely fitting match of our account of what it is for metaphysical modal claims to be true, and of what it takes for us to know them.

The account provided of metaphysical modal knowledge here falls closer to the traditional rationalist camp than to quasi-empirical and counterfactual approaches to modal knowledge. Yet rationalist views of modal knowledge classically come up against the question: why should our ability to conceive or imagine certain scenarios

[15] This is the paradigmatic route to basic modal knowledge. Could one also count as having modal knowledge based on testimony from other competent speakers, say, without being a competent speaker oneself? I will leave that question to the side here. Some might worry that there is an implicit circularity, since this sort of analysis involves determining when the relevant terms *could be applied.* But that is an optional way of describing the task: better to think of it as working out when the term *may* and *may not* be applied, exercising one's *mastery* of the norms for using the term (not a *discovery* of *metaphysical possibilities* of applying it).

[16] For more detail on how the normativist handles a posteriori modal truths, see my (in progress), which builds on work by Sidelle (1989).

[17] Some might worry that this ability to reason out what follows from the rules presupposes knowledge of logical necessity, and so again presupposes a kind of modal knowledge. But first, even if one had to retain a form of descriptivism about claims of logical necessity, we would still have an advantage from the point of view of understanding the methods and epistemology of metaphysics if we could at least retain a non-descriptivism about claims of metaphysical necessity. Secondly, a form of non-descriptivism about logical necessity goes quite naturally with non-descriptivism about metaphysical necessity, and has been developed elsewhere by Greg Restall (2012).

have anything to do with modal facts, which are supposed to be mind-independent and objective? As Wright puts it, if we cannot conceive of something, then "that is just how things are with us; it is a further, tendentious step to inflate our imaginative limitations into a metaphysical discovery" (1980, pp. 439–440).[18]

The normativist approach provides a nice route through this issue. For on this view, our justification for asserting a claim of metaphysical necessity comes from our mastery of the semantic rules, much as our standard justification for judging a sentence of our native language to be grammatical comes from our mastery of linguistic rules. A basic claim of metaphysical necessity is true if it does actually have the status of an object-language expression of a semantic rule (or as following from that). Given the truth of a basic claim of metaphysical necessity, we are then entitled to say that there are the relevant modal facts. These links ensure that our modal judgments and the modal facts will tend to be in sync (and non-accidentally so), at least for easy and central cases.

5 Meeting the reliability challenge

The reliability challenge, like the integration challenge, looks formidable when we begin from a descriptivist assumption about the function of modal discourse. The challenge is often presented as requiring the realist about modality to explain how we could have evolved a reliable capacity to track the modal truths posited by traditional (heavyweight) realists. This reliable capacity is sometimes thought of as a capacity for "tracking" modal truths. Sharon Street makes a similar argument for the *moral* case, arguing that the moral realist must aim to understand the evolutionary causes as "having *tracked* the truth; we may understand the relation in question to be a *tracking* relation" (2006, p. 125). Modal knowledge taken on that model must be conceived as analogous to knowledge of what predators are in the vicinity: having beliefs that reliably track the facts about what predators are in the vicinity might readily explain why we would have evolved a capacity for reliably tracking predators, and in general for forming reliable beliefs about certain relevant features of our environment. The challenge for the modal realist is then conceived of as giving a parallel story for our beliefs about metaphysical necessity that shows why an ability to track these modal truths would be evolutionarily advantageous. And that is a formidable demand. Moreover, as I have argued above, even if we think of modal facts or properties as features of this world, our causal relations to the statue and the lump are the same—so it is hard to see how there could be any causal story given of how we come to detect one set of modal properties rather than the other. The reliability problem thus arises in its most formidable form when we think of the knowledge expressed in true modal statements as aiming to describe some other worlds, or modal features of this world, which we must then be able to detect and track in such a way that our modal beliefs can come to reliably covary with them. Given that assumption, we can identify two in-principle barriers to giving any account of how we could have acquired modal knowledge. First, there

[18] Jenkins (2010, p. 261) also cites this point approvingly. For a response to Wright's worry, see Blackburn (1993).

are barriers to thinking that we could have any appropriate causal connection or other kind of access to the features or other worlds, or of this world, that are supposed to be known. Second, there are barriers to thinking that, even if we had such access, there is room for a story about why such knowledge would be selected for, why the ability to detect these merely metaphysical modal differences could aid our reproduction or survival.

If we begin instead by questioning the descriptivist functional assumption, the demands of the reliability challenge again show up very differently. For on this view we give up the assumption that, if we know modal facts, we must think of ourselves as having evolved a special faculty for tracking features of other possible worlds, or special modal features of this world. And we come to think of the very search for a 'tracking' account of modal knowledge as wrong-headed. Again, on this view we give an account of what it is to come to know modal truths that is not a metaphysics-first account, which begins by 'positing' other worlds or features of this world, and then tries to show how we can come to know them. Instead, we begin from an account of what it is for a claim of metaphysical necessity to be true, and a parallel account showing how we can come to know these truths via extrapolation from our semantic competence, reasoning, and (sometimes) empirical knowledge.

Given this approach, what do we owe, to be able to give a naturalistically respectable story about how we could come to have modal knowledge? Not an account of how we could come to evolve a faculty that accurately tracks features of all possible worlds or modal features of this world, nor of why the ability to detect merely metaphysical modal differences (like that between the statue and the lump) would enhance our capacities for reproduction or survival. Instead, all we need at bottom is room for a good evolutionary account of how we could have come to modalize as we do: of why it would be evolutionarily advantageous to be able to make, understand, and be responsive to modal judgments, and to do so *well* (in ways that ensure our judgments tend to be non-accidentally true).

The question of how we evolved the capacity to make metaphysical modal claims is an empirical one. Even work on how language in general could have evolved is in its infancy (Bickerton 2007); we certainly cannot provide a more specific account of how the use of metaphysical modal claims evolved. Nonetheless, what we can do is to insist that the two in-principle barriers to such an account that plague those who retain the descriptivist assumption fall away for the normativist. First, there is, on the normativist view, no need to suppose that we could have any appropriate causal connection or other kind of empirical access enabling us to 'track' the modal features or other worlds, in order to acquire modal knowledge. For on this view we acquire modal knowledge via extrapolation from our semantic competence (sometimes combined with reasoning and/or ordinary empirical knowledge)—not via access to disconnected worlds or to special modal facts or properties of this world. The difficulties of positing such a connection or tracking ability are thus no difficulties for the normativist.

Second, there is no need to give a story about why the ability to detect these modal properties would bring a selective advantage. There is only the requirement to explain how the ability to make true metaphysical modal judgments could have been useful—and the normativist is in a good position to do that. As I have described it above, the ability to acquire modal knowledge relies on three capacities: the ability

to master semantic rules and to make explicit what is involved in that tacit mastery, empirical knowledge (at least sometimes), and reasoning abilities (in order to be able to figure out what follows from these rules—sometimes, as combined with the empirical facts). Let us assume (as seems reasonable) that there are respectable evolutionary explanations of why natural selection might have favored those capable of acquiring ordinary empirical knowledge, and of employing reasoning skills. All that remains to be given, then, is a naturalistically acceptable story of why it might be useful to be able to master semantic rules and convey them explicitly (in the form of object-language indicatives)—and respond appropriately when others do so.

On the normativist view, a central function of metaphysical modal discourse is to enable us to convey and reason with and from semantic rules in particularly advantageous ways—e.g. enabling us to convey semantic rules in the object-language, in ways that enable us to also make explicit our ways of reasoning with rules, and expressing permissions, and enabling us to publicly renegotiate the rules. Why might it be evolutionarily advantageous to be able to do these things?

Think of the advantages an individual has by being part of a community of users of a common language. Such individuals can only fully participate in practices that benefit the whole community if they use language in ways that enable them to communicate, to understand others, to engage in joint planning, joint activities, and information sharing, and so on. But these evolutionary advantages come about only if such individuals can indeed *communicate* with others in the community, which requires that they use terms with at least closely resembling or overlapping rules of use. For such a communicative community to survive—one which uses a full rich natural language—it is undoubtedly useful for its members to have the capability of mastering the rules, and to have some way of instructing in the rules of use, communicating the rules of use, and policing (mis-)uses. Moreover, for the language of the community to be responsive to our changing circumstances and interests, there must also be ways of pressing for innovations of various kinds, (re-)negotiating the rules of use. Having metaphysical modal language enables speakers to do all of these things, thereby better enabling them to develop and retain a common language within the community, as well as one that is flexible and responsive to changing environmental conditions and the changing needs and values of the community. Individuals who cannot master the rules of use, or grasp the import of modal vocabulary are more prone to fail even when others attempt to linguistically guide and instruct them, and to make more mistakes—mistakes that could prove costly, given the costs that can come from misunderstanding others and from the social ostracism and isolation that come from failure to be a full part of a linguistic community. In short, if mastering a common public language, governed by largely shared rules that are teachable and open to innovation, can be shown to be useful from an evolutionary perspective, it is not difficult to see how the ability to modalize well (in ways relevant to expressing and responding appropriately to metaphysical modal truths) would be useful. There is certainly no in-principle barrier to there being a plausible evolutionary story about why it is useful to be able to modalize—nothing that parallels the principled problem that Nozick raises for Lewisian views.

6 Does the challenge arise again?

Thus far I have aimed to show that recent empiricist accounts of modal knowledge do not sufficiently answer the integration challenge or the reliability challenge, where knowledge of metaphysical modality is concerned. I have also argued that both challenges show up differently once the descriptive functional assumption is dropped, and that the remaining form of each challenge is addressed well by the modal normativist approach.

Nonetheless, those familiar with the parallel problems in the metaethics literature might worry that the answer can't be that simple. Sharon Street has famously pressed an evolutionary debunking argument in metaethics. Street's argument, at least on one widely shared interpretation, is a particular form of the reliability challenge.[19] In her later work, however, she makes clear that she does not think that the underlying problem is avoided by avoiding a tracking account of moral knowledge. For she acknowledges that Simon Blackburn, Allan Gibbard, and other quasi-realists reject tracking accounts (2011, p. 13), holding that "the *truth* of our values figures nowhere in the best evolutionary explanation of why we should hold them" (2011, p. 13). Yet nonetheless, she argues that "quasi-realists are in no better shape than ordinary realists" regarding epistemological worries (2011, p. 6). For, she argues, a problem arises for any view that aims to combine of a naturalistic explanation of the nature and origins of moral judgment, with accepting that there is an 'independent moral truth as such'.

The normativist view of modality is similar in various ways to quasi-realist metaethical views. Both insist that the relevant area of discourse (modal/moral) has a 'non-descriptive' function, that is, that it functions differently from standard empirical discourse that aims to 'track' or 'report' certain facts of the world. Both aim to give a naturalistic explanation of why we make certain moral/modal judgements, in a way that doesn't appeal to their truth. Both nonetheless hold that there are (modal/moral) truths, that there are (modal/moral) facts. Perhaps most importantly, both accept that these moral/modal facts are—in a relevant and important sense—mind-independent. For both accept certain independence conditionals. The moral quasi-realist accepts, for example, that it would still be wrong to kick dogs for fun, even if it were the case that I (and others) approved of it. For, as Gibbard puts it, to say this:

> …might amount to planning to avoid kicking dogs for fun, planning this even for the contingency of being someone who approves of such fun, and who is surrounded by people who approve. (2003, p. 186)

The modal normativist can tell a parallel story, entitling her to accept independence conditionals—accepting, for example, that it is necessary that seals are mammals, and that this would still be the case even in worlds in which there were no speakers or thinkers (and so in which we don't use the relevant terms) at all. Indeed it is crucial that the modal normativist be able to accept this kind of independence counterfactual in order to avoid the classic objections to modal conventionalism, to the effect that it makes the truth of necessary statements contingent on our adoption of certain linguistic

[19] Dreier (2012) and Schechter (2018) interpret Street's challenge as a version of the reliability challenge. For an alternative interpretation of where the challenge really lies, see Berker (2014).

conventions.[20] To say "Seals are necessarily mammals, and this would be true even in situations in which speakers adopted different linguistic rules (or in which there were no speakers)" might amount to a regulative claim—that the term 'seal' is to apply to whatever is the same biological kind as the kind instantiated by these things at the actual world, and that this regulation (of our actual term) is to remain in effect even in contingencies in which speakers use language differently (or in which there are no speakers at all). (And this idea is no different than the regulation we draw on when we agree with Lincoln that a dog would still have four legs, even if a 'tail' were called a 'leg').

Modal normativists can and do accept such independence counterfactuals: for while the *existence* of a claim (or the *meaningfulness* of the relevant piece of language) 'Necessarily, seals are mammals' may depend on human language, its *truth,* on the normativist view, does not so depend. We evaluate the truth of counterfactuals (whatever they are) in ways that *hold the meaning of the claim intact* while we conduct the evaluation. So, in this case as with others, when we ask whether 'Necessarily, seals are mammals' would be true in other circumstances, we do so without changing the meaning of 'seal', 'mammal', or the other terms in the sentence. How do we determine (on the normativist view) whether any statement P is necessary? As always, when we ask whether □P, we ask whether P is an object-language expression of a semantic rule (or what follows from such rules). Imagine we started from the non-modal statement: (a) 'Seals are mammals'. By the normativist's lights, since this is an object-language expression of what follows from a framework level rule of use (combined with the empirical fact that seals are actually mammals), we are entitled to add 'necessarily'. That is why we are entitled to (b) 'Necessarily, seals are animals'. But (b) itself is an object-language expression of semantic rules—this time, adding the rule for 'necessarily' that entitled us to add it onto our original claim (a). So, we are entitled to iterate the modality (adopting axiom 4 of modal logics) and conclude that the claim 'Necessarily, seals are animals' is itself necessarily true. (If it's a rule, it's a rule that it's a rule). But if (b) is necessarily true, then its truth is not contingent on the existence of minds, languages, etc. (although the existence and meaningfulness of the relevant piece of language of course may be mind-dependent).

So, the modal normativist, like the quasi-realist, aims to give a naturalistically acceptable account of the relevant (modal/moral) judgments, while still accepting independence counterfactuals. Given all that ethical quasi-realism and modal normativism have in common, one might then wonder whether Street's arguments carry over to suggest that modal normativists have as much trouble with epistemological problems as traditional modal realists do. Let's see.

Street (2011) argues as follows. The quasi-realist wants to imitate what the realist can say, for example, about moral facts being mind-independent. But if quasi-realists want to do that, she argues, they must "admit as intelligible talk about the independent normative truth *as such*" (2011, p. 9). For two people might disagree about what the moral truths are (say, whether it's morally permissible to eat meat) and yet agree that, whatever the truth is here, it is mind-independent. The quasi-realist needs to

[20] For criticisms along these lines, see, e.g. Sider (2003, pp. 199–200) and Boghossian (1997, p. 336). For response see my (2009).

capture the idea that there is something they agree about, Street argues, and to do so, the quasi-realist needs to accept that it makes sense to talk about "the independent normative truth as such". What does she mean by that phrase? She means "talk about the independent normative truth which does not presuppose any substantive views on what that truth is" (2011, p. 9). But once they admit that such talk is intelligible, she argues, quasi-realists (like traditional realists) owe an answer to the question "what is the relation between [the] evolutionary influence on our normative judgments, on the one hand, and the independent normative truth considered as such, on the other?… The following possibilities are exhaustive: either the evolutionary influence tended to push our normative judgments *towards* the independent normative truth, or else it tended to push them *away from* or *in ways that bear no relation to* that truth" (2011, p. 12). So, given that a 'tracking' account that could explain how evolution pushed us toward the independent normative truth is "scientifically indefensible" (2011, p. 13) (and rejected by quasi-realists anyway), she argues, quasi-realists are left with the options that evolutionary forces pushed us in ways that led our normative judgments away from or in ways that bear no relation to the independent normative truth (2011, pp. 13–14).

As Street emphasizes, in talking about the 'independent normative truth considered as such' we must be completely neutral about what the independent normative truths are, such that, "for all we know as a conceptual matter… what's ultimately worth pursuing could well be hand-clasping, or writing the number 587 over and over again, or counting blades of grass" (2011, p. 14)). Thus, she rejects responses that would explain, for example, how evolution pushed us towards believing that staying alive and developing one's capacities are worth pursuing independently of anyone's attitudes, or any explanations that take the form "what's ultimately worth pursuing is such-and-such, and here is why we were selected to think so", since these presuppose substantive views about what the independent truth is (2011, pp. 17–18). For "as a conceptual matter, the independent normative truth could be *anything*" (2011, p. 14). Taking this into account, she insists it would be an extraordinarily unlikely coincidence if the values we evolved to have happen to hit on the things that "are independently really worth pursuing" (2011, p. 14).[21] And so she concludes that, "all standard epistemological worries about realism may be transferred to the case of quasi-realism" (2011, p. 27).

Let us put to the side the issue in metaethics of whether Street's argument is fair to metaethical quasi-realists or effective against them.[22] The key question here is whether arguments like hers show that modal normativists can't answer the reliability challenge as easily as I suggested, making their problem with modal epistemology as difficult as that facing traditional realists. If we were to reconstruct the argument in those terms, it would go something like this: Modal normativists like myself accept that there are modal truths, and that these modal truths are mind-independent. But as

[21] In this way, Street's argument against quasi-realism certainly follows the form identified by Vavova (2015): of not merely presenting a skeptical challenge to show how moral knowledge is possible, but rather of raising targeted, empirical reasons to doubt claims of moral knowledge.

[22] Blackburn (unpublished) denies that the quasi-realist is, or needs to be, committed to anything like Street's 'independent normative truth considered as such', in which they must remain entirely neutral on what the normative truths are.

long as normativists accept that there are mind-independent modal truths, they face the question, "what is the relation between [the] evolutionary influence on our modal judgments, on the one hand, and the independent modal truth considered as such, on the other?"

Whatever may be the case for quasi-realists, however, modal normativists certainly do not purport to (or need to purport to) remain neutral about what the first-order metaphysical modal facts may be. It is the very starting place of the view to say that metaphysical necessities are object-language expressions of semantic rules, or what follows from them. And so (assuming one also, in using a language, has substantive (if implicit) views about what the semantic rules are), the view is committed to views about what the modal truths are. Thus although the modal normativist accepts independence conditionals, she is certainly not committed to the view that we can go completely wrong with our modal judgments—and if this is part of some heavyweight realist views of modality, there is no need for the modal normativist to mimic the realist in that (compare Street 2011, p. 17). Thus, the challenge for the modal normativist cannot be properly put as the demand to say, "what is the relation between [the] evolutionary influence on our modal judgments, on the one hand, and the independent modal truth considered as such [staying neutral on what these modal truths might be], on the other?" Instead, the fair epistemological challenge is to say: suppose the modal normativist is roughly right about what the metaphysical modal truths are, and right in thinking that basic true claims of metaphysical necessities are object-language expressions of semantic rules. What explanation could the normativist give of the reliability of our modal judgments—of why we don't go too far off track? And that is the sort of explanation I have given.

7 The unexplained coincidence problem

I have argued that modal normativists are under no obligation to give an account of how our modal beliefs may *track* modal truths, and have tried to show how they can give a naturalistically acceptable account of why the ability to make metaphysical modal judgments is useful, and why such judgments tend to be true. I have also argued that Street's attempt to show that there is a difficulty for quasi-realists in combining a naturalistic explanation of moral judgments with a view that moral facts are mind-independent (whatever its plausibility against quasi-realists may be) does not carry over to present a problem for modal normativists. For while modal normativists can justifiedly accept independence conditionals to the effect that metaphysical modal truths aren't contingent on our adoption of certain linguistic rules, they do not accept anything like the 'independent modal truth as such' which Street uses to formulate her argument against the quasi-realist. But perhaps we still are not done.

For some formulate the challenge in a way that doesn't rely on saddling the quasi-realist with commitment to an 'independent normative truth *as such'*. Jamie Dreier takes the challenge to be simply to: "give an explanation of why we reliably form normative [/modal] beliefs" (2012, p. 271) or "how is it that we have a belief-forming mechanism [about modality] that is reliable?" (2012, p. 272). But Dreier does not interpret Street's challenge as arising from the requirement that quasi-realists accept

talk of the 'independent normative truth as such', *taking this to require no substantive commitments about what the normative truths are.* Dreier takes it to arise just given that the quasi-realist accepts certain Independence Counterfactuals, such as:

> (IC): Even if we were to approve of kicking dogs for fun, it would still be wrong to do it (2012, p. 274)

As noted above, the modal normativist does accept parallel Independence Counterfactuals—indeed she must if she is to avoid the standard objections to modal conventionalism. So, she accepts:

> (IC): Even if there were no linguistic creatures at all, it would still be necessary that water is H_2O.

On Dreier's interpretation of Street, however, accepting such independence counterfactuals leads to the Problem of Unexplained Coincidence. Making the needed replacements to fit the modal case, we can read Dreier's version of the problem as follows:

> Once a theory takes these [independence] counterfactuals on board, it loses the capacity to explain the match between our [modal judgments] and the [modal] truth. For it cannot appeal to counterfactual dependence of [modal fact] on [modal judgment], and… there is no good explanation to be had by appealing to counterfactual dependence of [modal beliefs] on [modal facts]. Without any sort of counterfactual dependence to appeal to, the explanation for the happy match between our [modal judgments] and the [modal] truth is an Unexplained Coincidence. (adapted from Dreier 2012, p. 275).

Put in terms that bear on the modal normativist's position, the argument would be that as long as the normativist accepts that there are mind-independent modal truths (which I insist upon), she owes an explanation of the relation between the evolutionary influence on our *modal* judgments and the independent modal truths. But if we cannot give a tracking account to explain how evolution could have pushed us *towards* the independent modal truth, we are stuck with thinking they pushed us away from it or in irrelevant directions—leaving our success an unexplained coincidence. And so, without *some sort* of explanation we might be thought to leave it as an unexplained coincidence that the core modal propositions we believe after reflection and discussion tend to be true, and those we disbelieve under similar circumstances tend to be false.

Dreier gives an ingenious argument to show that quasi-realists in fact have no Unexplained Coincidence problem: he takes us from a language without evaluative predicates and builds, step by step, a (quasi-realist) moral language, complete with moral predicates, a truth predicate, and a claim of objectivity, and argues that there is no way an unexplained coincidence could enter at any stage (2012). Nonetheless, Dreier himself still considers the argument to be somewhat unsatisfying since, if successful, it shows *that* there can be no Unexplained Coincidence problem for quasi-realists, but does not tell us *why* no explanation is needed for the match between normative facts and our beliefs about them (2012, p. 286).

Can the modal normativist discharge this debt, for the modal case? I think the modal normativist is in a good position to answer this challenge—perhaps not head-on, by

saying why *no* explanation is needed of the relation between modal facts and our studied modal judgments, but instead by explaining why we should expect an entirely different *sort of* explanation than that given in cases of perceptual knowledge, given the crucial differences in the function and rules governing the discourse. Dreier, following Gibbard, says one might try to say why there is no demand for explanation in the case of fit between our normative beliefs and facts by distinguishing robust FACTS, which are such that "our best (or, the correct) account of our thoughts and talk is partly in terms of it", and moral facts, where the "best account of our normative and evaluative thoughts never mentions the right or the good" (2012, pp. 286–287), giving us a picture on which normative facts "do no explanatory heavy lifting, they are metaphysically lightweight, so phenomena involving them do not create real explanatory gaps", though even this he takes to be no more than a suggestive picture that doesn't give a straight answer to the question of why no explanation is called for here (2012, p. 287).

I have argued elsewhere (2015) that we should not excuse the lack of explanation in the moral case by appealing to a metaphysical difference between 'lightweight' and 'heavyweight' facts, or anything along those lines. (Instead, I suggest, we should accept that there *are* moral facts in the only sense these terms have (2015, Chapter 3)). The relevant difference, on the normativist view, is not in the *metaphysical status of the facts*, but rather in the *function of, and rules governing, the discourse*. And that difference accounts not for why we need *no* explanation of the broad match between moral or modal beliefs and the correlative facts, but rather for why we should expect an entirely different *kind of* explanation. (Given the quarry here, I will draw out the response only for the modal case, leaving it to others to determine whether it is a model that could help in the moral case as well).

The normativist holds that modal discourse has a fundamentally different function than discourse that aims to track and report on features of the external environment and co-vary with them. There are no doubt a great many different functions areas of discourse can serve, but we can at least begin by drawing, following Price (2011, pp. 20–21), a distinction between those areas of discourse that are e(xternal)-representations, in the sense that they put "the system-world link on the front foot" giving "priority to the idea that the job of a representation is to *co-vary* with something else—typically, some *external* factor, or environmental condition" (2011, p. 20)—and those that are not. Where the function of an area of discourse is e-representational, questions about how we are able to track the relevant facts, what perceptual or quasi-perceptual faculty we have for detecting them and how that might have evolved in ways that enable our beliefs in the area to co-vary with the facts, are entirely appropriate.

Such questions, however, are not appropriate for areas of discourse that do not have an e-representational function. In the case of modal discourse, I have argued, the function is not to report on or track features of the environment—so the discourse can get along perfectly well without positing any such connection to justify a claim of co-variation. The idea that those engaged in Therapeutic Touch can detect human energy fields with their hands is debunked by tests showing no correlation (Rosa 1998). But where tracking external facts is not a function of an area of discourse, no such debunking of an area of discourse is appropriate. The function of metaphysical modal discourse (I have argued) is to enable us to convey, reason with, and sometimes re-negotiate semantic rules in the useful form of object-language indicatives. Modal

discourse serves its function if it enables us to do that task well—it does not have as a success condition the ability to track features or this or other worlds.

But how, then, can we address the Unexplained Coincidence problem—giving some explanation (if not a tracking/fact-detecting explanation) of why our reflective metaphysical modal beliefs tend to broadly 'match' the modal facts—or, more neutrally put, for why our reflective metaphysical modal beliefs tend to be true? While the normativist rejects the demand for a 'tracking' explanation, she is able to say why evolutionary pressures might lead to development of a shared public language, with shared rules (yet rules which are also flexible and up to re-negotiation in the face of changing circumstances or needs). She can also say why pressures on an individual for being a full member of a linguistic community (with all the associated benefits for survival and reproduction) tend to push them towards mastering those rules along with mastering ways of enforcing and responding to enforcements of those rules. Given that, as I have argued above, we can give an evolutionary account of why speakers will tend to have the needed mastery of the rules, and ability to communicate those rules through the expression of modal truths.

Now we can ask, with Dreier, what explains the 'broad match' between our most basic (metaphysical) modal beliefs and the basic (metaphysical) modal facts, if not the counterfactual dependence of one on the other? Where do our basic metaphysical modal beliefs come from? On the whole, when all goes well, they come from our linguistic mastery: first, from our mastery of the rules of use for ordinary terms ('bachelor' and 'unmarried'); and second, from our mastery of the introduction rules for modal terms like 'necessity', which entitle us to stick 'necessarily' on to an object-language expression of a rule of use, and so can bring us to reject a statement that there is a married bachelor, and to believe that it's necessary that bachelors are unmarried. Why do these beliefs tend to 'match' the modal facts? Talk of modal facts just involves hypostatization out of modal truths. On the normativist view, we can legitimately introduce a claim of metaphysical necessity by adding "Necessarily" on to any statement P that is an object-language expression of an actual semantic rule. And, employing a deflationary theory of truth, we are entitled to infer from "Necessarily P" to "it is true that [Necessarily P]". Where we have a true claim of the form "Necessarily P", we can also engage in trivial truth-preserving inferences that entitle us to infer from the true claim, "Necessarily P" to "It is a fact that P is necessary". Talk of modal facts just involves hypostatization out of necessary truths, and necessary truths just are object-language expressions of rules of use. The question of why our metaphysical modal beliefs tend to be true can just be reduced to the question of why we tend to be able to accurately express rules of use in object-language indicatives, and that can be explained by our linguistic competence (including competence with the term 'necessity').

In short, the needed explanation can go via understanding the way the discourse about modal facts is introduced—not via the metaphysical standing of the relevant facts, or an appeal to a counterfactual dependence of modal beliefs on modal facts or vice versa. Given that most of us are competent speakers of our native language, we can expect native speakers to be pretty good (though certainly not infallible) at determining what is and is not an object-language expression of a semantic rule, and so at distinguishing those necessity (and possibility) claims that are legitimately derived

from those that are not. On the normativist view, that fully entitles us to say that there is the relevant modal fact in the only sense that has sense—there is no danger of a 'slippage' that might make us worry that, while we have blithely engaged in this redundant inference, we have failed to match the *true* modal facts of the world.

There are of course dangers that we (even competent speakers) may fail to correctly judge what is/is not an object-language expression of a semantic rule of our common public language, or what is a consequence thereof (particularly when we plug in empirical truths). Our modal beliefs are not infallible. Moreover, the rules of our public language may sometimes or even often be vague, indeterminate, contextually variable, and/or open to renegotiation—often leading to difficulties in saying definitively what the modal truth *is*. But the point here is that the modal normativist is in a position to give a perfectly adequate explanation of why we needn't worry that most of our central and reflective basic metaphysical modal beliefs might 'fail to match' the facts—an explanation that relies not on positing a tracking faculty but rather on understanding the function and introduction rules for the discourse that enable us to speak of the 'modal facts' at all.[23]

So, the normativist is in a good position to give an evolutionary account of our modalizing. And she can also give an account of why, given our ability to use basic and modal language, basic metaphysical modal beliefs tend to be *true*. On the normativist approach there is no danger of a kind of massive slippage that debunking arguments warn of between our modal beliefs and modal facts. For competent speakers, who have mastered the semantic rules, should typically be capable of acquiring the ability to convey those rules in object-language indicatives, adding the useful modal terminology. And when they do, the claims of metaphysical necessity they make will be true, and will entitle them to make trivial inferences about what the modal facts are. On this view, seeking to know modal truths by working from our semantic competence in this way is not at all like trying to get to Bermuda by 'letting the course of your boat be determined by the wind and tides' (Street 2006, p. 121).

The modal epistemology we get out of the normativist view thus also brings the advantage of avoiding skepticism about modal knowledge. We might become skeptics about modal knowledge if we think it proper to expect and demand a causal connection to link the properties or facts known with our beliefs about them—and find none plausible in this case. Or we might become skeptics about modal knowledge if, with Nozick, we think it apt to demand an evolutionary story about how we could have evolved a faculty enabling us to correctly detect the modal facts and properties—but doubt whether any could be forthcoming. But as I have argued above, once we drop the descriptivist assumption, these demands (so expressed) seem otiose. Moreover, once we adopt the normativist approach to metaphysical modality, we can see the route to a clear and plausible account of metaphysical modal knowledge that meets both of the classic challenges, in the form in which they might be thought to remain, and avoids leaving the 'broad match' between basic modal facts and our beliefs about them an 'unexplained coincidence'.

[23] The story, of course, will be somewhat more complicated for the acquisition of derivative modal knowledge, since that also involves knowledge of the relevant empirical filler facts, which is subject to the usual kinds of empirical error.

8 Conclusion

One important lesson that we can draw from the above work is that it can be important to not assume that the problems of modal epistemology may all be treated together. A plausible story about how we can come to know the truth of empirical counterfactuals or dispositional claims may run very differently from the sort of story we need to account for our knowledge of the truths of metaphysical modal claims, and many of the other modal claims that play a central role in philosophy.[24]

A second lesson is that we should not simply assume that all forms of discourse have a descriptive, tracking, e-representational function. The epistemological problems appear most insuperable when we assume that modal discourse functions in ways that parallel ordinary empirical discourse. Similar epistemological problems are known to arise for other areas of discourse, including the mathematical and moral. And in both of those arenas, there are plausible views that reject the descriptivist assumption. Whether doing so also makes the parallel problems show up differently in those cases, and opens the route to a positive solution, I will have to leave for others to investigate.

The point I have made here is specific to metaphysical modality. I have argued that adopting the Modal Normativist position makes both of the classic epistemological challenges to modality show up differently. I have also argued that the modal normativist can meet the positive epistemological challenges that remain—providing a plausible account of our knowledge of metaphysical modality that successfully meets the general integration and reliability challenges and avoids the unexplained coincidence problem. The fact that the normativist view can give a plausible account of how we can come to know modal facts in a way that avoids the classic epistemological difficulties is a very significant advantage. In response to David Lewis' claim that the problem of modal knowledge "is a problem for everyone (certain skeptics and conventionalists excepted)" (1986, p. 113),[25] we can now say that the time has come for another exception.[26] As I have argued, the key to avoiding the traditional problems of how we can come to *know* the metaphysical modal facts, is avoiding the traditional descriptivist assumption about what metaphysical modal discourse functions to *do*. To build a positive modal epistemology, we must also work from there to give a plausible account of what the function of metaphysical modal talk is, how it is introduced, and what rules it follows. These can form the basis for explaining we can come to know metaphysical modal truths, and why we might have evolved in a way that enables us to be pretty good at modalizing. And that, in turn, can help us not only to avoid a skepti-

[24] This echoes a conclusion of Roca-Royes, who notes that her work "suggests very strongly that a sufficiently comprehensive epistemology of modality cannot look uniform" (2017, p. 243).

[25] Compare Sidelle (1989 pp. 110–111), who argues that conventionalism is the only way to explain why intuition is a guide to modal truth. For reference to be determinate, we must associate the relevant modal conditions, but then we have the grounds to know what the referent's modal properties are.

[26] Many are hesitant to embrace conventionalism. For recent criticisms of conventionalism, see Sider (2003) and Boghossian (1997). While the normativist view is in certain ways an heir to conventionalism, it nonetheless avoids the classic problems attributed to conventionalism (see my 2009).

cism about metaphysical modal knowledge, but also to avoid a despairing skepticism about a good portion of work in metaphysics and other areas of philosophy.[27]

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