Reply to Vetter

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In 'Williamsonian modal epistemology, possibility-based', Barbara Vetter proposes a modification of the approach to the epistemology of metaphysical modality developed and defended in *The Philosophy of Philosophy*. As she emphasizes, her approach is as realist and anti-exceptionalist in spirit as mine: it treats metaphysical modality as just as objective and mind-independent, and roots our knowledge of it just as securely in our ordinary ways of knowing. The main difference between us is that in that book I give the starring role to ordinary ways of knowing about what would have happened if something had been different, whereas Vetter gives it to ordinary ways of knowing what things and people can or cannot do, where 'can' entails a restricted but still objective sort of possibility.[1]

In my more recent work on modality, I have emphasized more systematic and rigorous ways of learning about objective modalities, in particular through logic and natural science (Williamson 2013, 2016b). In this reply, however, I will follow Vetter in focussing on our everyday knowledge of objective modalities.

On folk knowledge of modality, is there much more between Vetter and me than a difference of emphasis? In *The Philosophy of Philosophy*, I note the entailment from restricted forms of possibility such as physical possibility to metaphysical possibility, and

comment: 'the connections with restricted possibility and with counterfactual conditionals are not mutually exclusive, for they are not being interpreted as rival semantic analyses, but rather as different cases in which the cognitive mechanisms needed for one already provide for the other' (Williamson 2007, p. 178). Indeed, the availability of various alternative routes to knowledge of the same thing is just what is to be expected on a realist, anti-exceptionalist epistemology.[2] However, I also observed in passing about the possibility route that 'we would need some account of what demarcates the relevant forms of possibility from irrelevant ones, such as epistemic possibility' (ibid.). Vetter's paper constitutes a detailed and helpful response to that demarcation challenge. According to Vetter, her possibility-based approach is indeed better placed than my counterfactual-based approach to deal with the challenge. I discuss her arguments for that claim in the next section. In a brief final section I take up some of her remarks on the metaphysical ramifications of the time-dependence of ability ascriptions.

1. *Circumstantial and epistemic readings*

I applaud much of what Vetter says in her paper. Modal auxiliaries such as 'can' are near-ubiquitous in the ordinary use of natural languages, very often marking our engagement in thought and action with various kinds of practical and physical possibilities, some actual, many counterfactual, and with corresponding sorts of practical and physical impossibilities. If you can lift the stone, then it is possible for you to lift the stone in some objective sense

that entails that it is metaphysically possible for you to lift the stone, because metaphysical possibility is the maximal kind of objective possibility; by contrast, if you can't lift the stone, it does *not* follow that it is metaphysically *im*possible for you to lift it (Williamson 2016b). I see no reason to regard the use of such auxiliaries as less basic in any sense — metaphysical, epistemological, psychological, or semantic — than the use of counterfactual conditionals.

As Vetter documents, linguists have accumulated a considerable body of evidence for a syntactically significant distinction between epistemic and circumstantial modals, where the linguists' term 'circumstantial' corresponds closely to my term 'objective' (I prefer the latter term only because it is characteristic of metaphysical modality to be independent of circumstances). In particular, epistemic modals tend to scope higher than circumstantial modals with respect to temporal operators and quantifiers, even if it is tricky to state the difference accurately in precise and general terms: as so often with natural languages, the data are messy. In any case, whether the unpreferred readings of the sentences at issue are impossible or just harder to hear, I accept that there are genuine syntactic differences between epistemic and circumstantial modals. The distinction is at work in natural languages themselves, not merely projected onto them from the outside by philosophers.

It does not follow, of course, that the syntactic differences are the *means* by which speakers or hearers themselves differentiate between epistemic and circumstantial readings. Sometimes, the speaker's choice of modal auxiliary may communicate to the hearer which reading is intended: 'Jane can solve the equation' (circumstantial) or 'Jane may solve the equation' (epistemic). In many other cases, even when the string of words is the same, the conversational context makes it clear which reading is relevant. To adapt one of

Vetter's examples, 'Mary could have done it' may state a present epistemic possibility (in answer to the question 'Who are the suspects?'); in another context, it may attribute a past ability to Mary (in rebutting the claim 'Only John had the nerve to stab him in front of so many onlookers'). In such cases, the conversational context (including the speaker's intentions) determines the relevant reading of the modal and its appropriate scope relative to the past tense. The relative scope is not independently given to the hearer as a datum from which to work out whether an epistemic or a circumstantial reading is intended.

That epistemological point bears on the argument of Vetter's paper. In section 5, she adduces good evidence that counterfactual conditionals sometimes receive epistemic readings (see also Edgington 2008). In *The Philosophy of Philosophy*, I considered only the circumstantial readings of counterfactual conditionals. Their epistemic readings will not serve my purposes there: they cannot be used to define the metaphysical modalities. Therefore, as Vetter points out, I too face the challenge in principle of distinguishing circumstantial readings from epistemic ones, in my case with respect to counterfactual conditionals. In section 6.1, she argues that the syntactic differences between epistemic and circumstantial readings of 'can' are less clear for counterfactual conditionals: specifically, while circumstantial 'can' always scopes below tense, circumstantial 'would' sometimes scopes above tense, for instance in backtracking counterfactuals about necessary preconditions. One of her examples is this ((15) in her numbering):

(1) If she had measles now, she would have got it from someone else.

The counterfactual conditional in (1) is to be read circumstantially. According to Vetter, (1) posits that her now having measles presently requires the past to contain her getting it from someone else, not that her now having it once required the then present or future to

contain her getting it from someone else. But, even if she is right about this syntactic asymmetry between 'can' and counterfactual conditionals, that would not stop speakers and hearers from distinguishing between them by the conversational context. Indeed, in presenting her examples of counterfactual conditionals with epistemic readings, Vetter relies on her readers to distinguish those readings by using her sketches of the relevant conversational contexts.

It is in any case not clear that circumstantial 'can' always scopes below tense. Consider this variant on (1), set at a time when theories of measles were just starting to be developed. A child has measles. The doctor is explaining what, according to a speculative new theory, is physically possible:

(2) She can only have got it from someone else.

The 'can' in (2) is to be read circumstantially. Moreover, (2) excludes as now physically impossible her not having got measles in the past from someone else. It does not exclude as once physically impossible her not getting measles in the then present or future from someone else. Thus the syntactic tests may be fallible for Vetter's 'can', just as they are for my counterfactual conditionals. Section 2 below will consider related examples for other purposes.

In section 6.3 of Vetter's paper, she discusses another obstacle to recognizing whether a counterfactual conditional is being read epistemically or circumstantially. She argues that, although the readings are distinct in principle, in practice the cognitive processes of assessing the truth-value of a given counterfactual conditional tend to go much the same. Here is her example ((17) in her numbering):

(3) If A were the murderer, she would be hiding the weapon in a very safe place.

(3) has both an epistemic and a circumstantial reading. Vetter plausibly suggests that the investigation the police will go through in evaluating (3) on one reading is very similar to, though not exactly the same as, the investigation they will go through in evaluating it on the other. We may assume that she is right about that. But consider an analogous example for the possibility-based view:

(4) A could have hidden the weapon in a very safe place.

(4) has both an epistemic and a circumstantial reading. But it is also plausible to suggest that the investigation the police will go through in evaluating (4) on one reading is very similar to, though not exactly the same as, the investigation they will go through in evaluating it on the other. Thus her possibility-based approach seems to face an objection analogous to the one she levels against my counterfactual-based approach: the two readings are hard to tell apart in terms of the associated processes of cognitive evaluation.

However, we should not underestimate the cognitive differences between evaluating the epistemic and circumstantial readings. For instance, in the case of (3), suppose that the police know from taunting messages from the murderer, whoever it is, that he or she is hiding the weapon in a very safe place. They also have strong, though not decisive, evidence that A is careless, lazy, and stupid, not at all the sort of person to be hiding the weapon in a very safe place. Then, by deduction, the police know (3) on its epistemic reading. By contrast, on its circumstantial reading, (3) is very improbable on the police evidence. For, when evaluating (3) on the epistemic reading, the police can exclude worlds in which A is the murderer and is not hiding the weapon in a very safe place; they cannot exclude those worlds when evaluating (3) on the circumstantial reading. Again, in

the case of (4), suppose that A has confessed to the murder and revealed that she had found a very safe place in which to hide the weapon but decided at the last minute instead to hand it over to the police and confess. Then (4) is true on its circumstantial reading but false on its epistemic reading.

The upshot is that, with respect to distinguishing the cognitive processes of evaluation for the two readings, my counterfactual-based approach and Vetter's possibility-based approach are in roughly the same position. For both, the distinctions are subtle, but can be made.

In her section 6.2, Vetter points out that some trained linguists have classified a high proportion of occurrences of counterfactual conditionals in corpora of real-life uses of natural language as epistemic, whereas philosophers of language tend to assume that most such occurrences are circumstantial. Without endorsing the linguists' classifications, she offers the divergence as indicating the difficulty of identifying which reading is intended. One wonders whether there are similar divergences for 'could'. But she takes her stand on 'can', because for it 'there are no advocates of widespread epistemic readings'. However, 'can' does occasionally receive an epistemic reading, as when we hear a knock at the door and one of us asks 'Who can that be?' But I will not attempt to argue for *widespread* epistemic readings of 'can'.

For what is the variability in classification to which Vetter points significant? It may make for difficulties in applying the counterfactual-based theory to examples, although relevant difficulties have not yet been noticeable. In any case, it does not follow that native speakers of natural languages have difficulty in respecting the distinction between epistemic and circumstantial readings in practice. The language module may employ distinctions

whose boundaries are hard to trace from the outside, even if one is a native speaker. We may still use those distinctions in coming to grasp the metaphysical modalities.

The foregoing considerations suggest that neither the counterfactual-based approach nor the possibility-based approach has a clearly decisive advantage over the other, as implementations of a realist and anti-exceptionalist epistemology of metaphysical modality. *The Philosophy of Philosophy* concentrated on the former because the use of counterfactuals with a contradictory consequent promises to take one directly to the outer limit of objective modality, whereas there is no corresponding mechanism for 'can'. But 'can' has its own attractions as a more Aristotelian jumping-off point for metaphysical modality, as Vetter's own work illustrates (Vetter 2015). There is no need to see the two approaches as mutually exclusive. Rather, each of them highlights a different aspect of our rich and highly adaptive engagement in ordinary thought and talk with the objective-circumstantial dimension of modality. They reinforce rather than undermining each other. Moreover, they do not exhaust our ordinary ways of engaging epistemically with that dimension. Recent work by Margot Strohminger (2016) on perceptual knowledge of objective nonactual possibilities and by Sonia Roca-Royes (201X) on inductive knowledge of such possibilities contains many insights that fit naturally into this overall picture, despite some significant divergences in their theoretical assumptions. After all, an anti-exceptionalist realist expects things to have a back as well as a front, to be approachable from many sides.

2. *Possibility in time*

Vetter tentatively associates the distinction between epistemic and circumstantial readings with a structural distinction between *de dicto* and *de re* modal claims. The intriguing idea is that the former ascribe an epistemic modal status to a *proposition*, whereas the latter ascribe a more objective modal status to a *property* with respect to an *object*. This might provide a kind of metaphysical explanation for the tendency of circumstantial modals to scope under temporal operators and quantifiers and for epistemic modals to scope over them.

Vetter may be right about the prototypical applications of epistemic and circumstantial modals, but natural languages go well beyond those prototypical cases. For instance, the *de dicto* construction 'it can happen that' with a sentential complement is common in English, typically with a circumstantial reading. A scientific theory may predict that it can happen that there are infinitely many stars. The 'it' is needed for purely syntactic reasons. Conversely, epistemic modals are sometimes used in *de re* constructions, as when a detective asks 'Which people may have been in the house on the night of the murder?' The syntax of natural languages is not a firm enough basis for metaphysical distinctions.

Vetter is especially uneasy with circumstantial possibilities not rooted in a future-directed potentiality at some time, as in (5) and (6):

(5) History could have been always different from what it actually was.

(6) A particle can have been spin up for infinitely long.

The possibility at issue in (5) is not realized in any possible world that branches off from the actual world at some time. The possibility at issue in (6) may just be realized in the actual

world but otherwise it too is not realized in any possible world that branches off from the actual world at some time. In both cases, the circumstantial modal takes scope over the temporal operator. In her concluding section 7, Vetter toys with the idea that the apparent possibilities in (5) and (6) may be illusory, generalizations too far from the potentialities possessed at some time by objects in the actual world.

If Vetter's possibility-based approach really cannot make sense of objective possibilities like those in (5) and (6), that may simply be a limitation of the approach, if treated as mediating all our grasp of objective modality. By contrast, the counterfactual-based approach is well-placed to avoid such a limitation, because it does not depend on a *de re* construction, even on the circumstantial reading. Such possibilities may be physical as well as metaphysical, for the fundamental equations of a well-confirmed physical theory may have solutions on which history is different at every time from what it actually was, or a particle is spin up for an infinite initial segment of history. On a realist and anti-exceptionalist approach to the epistemology of objective modality, we cannot expect our ordinary ways of knowing about it to exhaust what we can know about it. Rather, we should expect a more scientific approach to extend and far exceed our ordinary knowledge of objective modality.

Notes

1 Several authors have misinterpreted the account in Williamson 2007 as moving from the logical equivalences between claims of metaphysically modality and claims involving counterfactual conditionals to the idea that we first know the latter and then use the logical equivalence to come to know the former. That was never part of my view. Rather, the idea was that we *can* use a similar cognitive process in coming to know either side of the equivalence, and that an economical and plausible hypothesis is that indeed we do so. As emphasized in that book, since each claim of metaphysical modality is logically equivalent to several different counterfactual formulations (which are therefore logically equivalent to each other), and the latter will each be known by slightly different cognitive processes, only approximate similarity can in general be postulated. Indeed, each particular counterfactual formulation may be known in various different ways. This is just what one would expect on the counterfactual approach. The main point is that if one has what it takes to evaluate counterfactual conditionals, one already has what it takes to evaluate claims of metaphysical modality, so there is no need to postulate an additional faculty just to explain our ability to do the latter.

2 Vetter says of Williamson 2016a: 'there he appears to think of can statements along the lines of a version of the conditional analysis of ability ascriptions'. But I agree with Vetter in rejecting that analysis. In the relevant passages, I argue that through a single

imaginative exercise one sometimes learns *both* that one can do something and that if one were to try to do it one would succeed; I do not claim that the two items of knowledge are equivalent to each other.

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