**What Possibility Demands of Conceivability**

**Section 0: Introduction**

Philosophers frequently motivate claims as possible based on conceivability.[[1]](#footnote-1) It is then natural to wonder whether conceiving is a reliable method for generating justified beliefs in possibility claims. Yablo argued[[2]](#footnote-2) conceiving proposition p as possible provides evidence that p is, in fact, possible.[[3]](#footnote-3) Less optimistic philosophers, such as van Inwagen,[[4]](#footnote-4) claim conceiving proposition p as possible provides no evidence that p is possible. If van Inwagen is correct, philosophical arguments relying on possibility claims motivated solely by conceivability are suspect. Given how widespread such philosophical arguments seem to be, van Inwagen’s claims are worth examining in detail.

In **Section 1**, we extract and evaluate van Inwagen’s argument for *Moderate Modal Skepticism*, the view that while agents have justified beliefs in some – rather commonsensical – modal claims, agents do not have justified beliefs in many other – rather philosophical – modal claims. Having outlined van Inwagen’s position, in **Section 2** we note a long-standing objection to van Inwagen’s argument – that it can be generalized to undermine justified beliefs in commonsensical modal claims as well as philosophical modal claims – fails, but a related worry – that van Inwagen’s argument relies on an under-motivated distinction between basic and non-basic modal claims – does not. Two responses are offered on behalf of van Inwagen, though neither are entirely satisfying. Additionally, we note van Inwagen’s argument implausibly requires agents justified in believing a given modal claim is true in every case know the modal claim is true. Having observed costs of van Inwagen’s characterization of the relationship between conceivability and possibility, in **Section 3** we examine Yablo’s well-known alternative, which does not rely on an obscure distinction between basic and non-basic modal claims, and which allows justified belief and knowledge concerning modal propositions to come apart. Since there are independent reasons to prefer Yablo’s proposal to van Inwagen’s as an appropriate analysis of the link between conceivability and possibility, and since – *pace* van Inwagen – Yablo’s proposal does not entail Moderate Modal Skepticism, we conclude the various philosophical arguments targeted by van Inwagen are not threatened by his skeptical thesis.

**Section 1: Moderate Modal Skepticism – Exposition**

In this section, we extract and defend van Inwagen’s argument for *Moderate Modal Skepticism*.

*Van Inwagen’s Moderate Modal Skepticism*

Van Inwagen presented a skeptical argument to the conclusion that we are not justified in believing many modal claims we take ourselves to be justified in believing. To see why, observe propositions can be divided into those whose truth-values can be determined by logical,[[5]](#footnote-5) semantic, or mathematical reasoning, and those that cannot.[[6]](#footnote-6) The latter class can be separated into propositions known to be true – denote this class T – known to be false – denote this class F – and unknown to be either true or false – denote this class U. Denote the union of the class of propositions known to be false and the class of propositions unknown to be either true or false UF. With respect to UF, van Inwagen argues for a form of modal skepticism in the following manner:[[7]](#footnote-7)

1. Proposition p’ is a member of UF
2. SUPPOSE: S’ has a justified belief that p’ is possible
3. For all agents S and propositions p, if S has a justified belief that p is possible and p is a member of UF, then there is some possible world w such that S can imagine w and S takes w to verify p
4. There is some possible world w such that S’ can imagine w and S’ takes w to verify p’
5. If p is a member of UF, then there is no agent S and possible world w such that S can imagine w and S takes w to verify p
6. There is no agent S and possible world w such that S can imagine w and S takes w to verify p’
7. There is some agent S and possible world w such that S can imagine w and S takes w to verify p’

Line **(1)** is motivated by example, e.g. propositions one might be disposed to express with sentences “Naturally occurring purple cows exist” or “Transparent iron exists.” The truth-value of neither proposition can be determined by merely logical, semantic, or mathematical reasoning, and each is either known to be false or unknown to be true or false. Hence, the class UF is non-empty. **(2)** is supposed for *reductio*. Concerning **(3)**, Van Inwagen claims we know what he calls *basic* modal claims are true, e.g. that propositions one might be disposed to express with sentences “The chairs are arranged in a different manner” or “The Sun will rise tomorrow” are true. Though Van Inwagen claims it “mysterious” how we acquire such modal knowledge, he is sure we have some.[[8]](#footnote-8) However, van Inwagen insists possibility claims that are neither basic nor justified by logical, semantic, or mathematical reasoning, i.e. those with corresponding propositions as members of the class UF, require some method underwriting justified belief in these possibilities. Rejecting that we have any other capacity for acquiring justified beliefs in propositions of the class UF,[[9]](#footnote-9) van Inwagen adopts a feature of Yablo’s proposal - verification by way of imagining a possible world one takes to verify the proposition in question – as a means to justified belief in such propositions.[[10]](#footnote-10) Altogether then, having a justified belief that a member of UF is possible requires imagining a verifying possible world. **(4)** follows by instantiating variables and inferring by modus ponens from **(1)**, **(2)**, and **(3)**. Concerning **(5)**, consider an example member of UF, the proposition one might be disposed to express with the sentence “Transparent iron exists.” One might claim to imagine a world one takes to verify this proposition, e.g. a world in which the scientific community proclaims the existence of transparent iron. However, this imagining is compatible with iron not, in fact, being transparent, but instead the scientific community being deceived or mistaken.[[11]](#footnote-11) Van Inwagen claims ruling out all such undermining compatibilities requires imagining a possible world in sufficient detail to exclude them, and this requires imagining detailed chemical, physical, and electromagnetic aspects of the world. He is skeptical anyone has[[12]](#footnote-12) or can[[13]](#footnote-13) engage in such detailed imagining. If correct, then no one can imagine a possible world one takes to verify transparent iron exists. **(6)** follows by instantiating **(5)** with a member of UF. **(7)** follows by existential generalization over agents on **(4)**. Clearly, **(6)** and **(7)** conflict.

Van Inwagen’s argument leaves us with some justified beliefs in modal claims - basic modal claims and those derived from logical, semantic, and mathematical reasoning - but justified belief in members of UF is beyond our epistemic reach. This is van Inwagen’s *Moderate Modal Skepticism*.[[14]](#footnote-14) If correct, then van Inwagen’s argument undermines any argument resting on premise(s) where agents claim to have justified beliefs in those premises based on conceiving. There seem then good reason to question the success of van Inwagen’s argument.

**Section 2: Moderate Modal Skepticism – Objections**

In this section, we first relate a standard objection to premise **(3)** of van Inwagen’s argument but show how this worry is can be avoided. However, this move opens van Inwagen to another objection: The distinction is simply asserted by van Inwagen without explanation, making it a rather pronounced dialectical target. After considering and rejecting a way to make sense of the distinction between basic and non-basic modal claims, we argue van Inwagen should forego attempts to draw a firm distinction since boundary cases will surely arise, and should instead simply rely on paradigmatic examples to justify the distinction. We note, however, this is still rather unsatisfying. Additionally, we observe premise **(3)** implies justified belief and knowledge in members of UF coincide, leaving no room for having justified beliefs in modal claims not known. Unfortunately, van Inwagen provides no reason to impose such high standards for justified beliefs in members of UF.

*Preliminary Skirmish*

Van Inwagen’s requirement in the consequent of **(3)** that imagining a possible world w one takes to verify a proposition p of UF involves precluding ~p at w seems rather demanding. Specifically, it seems strong enough to rule out many justified beliefs in modal claims we take ourselves to have. For instance, it is clearly possible that my laptop browser be faster than it currently is, i.e. in accessing websites, downloading, uploading, etc. Premise **(3)**, however, seems to require that – in order to have a justified belief in such a modal claim – I imagine a possible world in sufficient detail to preclude the falsity of my laptop browser being faster than it currently is at that world. This imagining outstrips my knowledge of internet browsers, and so it seems that I do not have a justified belief in the possibility that my laptop browser be faster than it is. But this seems wrong. Clearly, I have a justified belief that this is possible. Hence, premise **(3)** – so construed – is implausibly strong, and should be rejected.[[15]](#footnote-15)

This objection to van Inwagen’s argument is too quick. As noted above, van Inwagen’s argument targets only propositions in the UF class. Excluded from this class were those propositions for which we can know the truth-value by logical, semantic, or mathematical reasoning, *and* those which he claimed are basic. [[16]](#footnote-16) While neither logical, semantic, nor mathematical reasoning determine the truth-value of the proposition corresponding to the possibility of my laptop browser being faster than it currently is, van Inwagen may nevertheless claim this is a basic modal claim, and so I might have a corresponding justified belief. If so, appealing to conceivability – and the rather demanding premise **(3)** – is unnecessary for justified belief in this proposition. I need no other justificatory method; I simply know it is possible my laptop browser could be faster than it is.

*Objection 1: Basic vs Non-Basic Modal Claims*

That said, such a response on van Inwagen’s behalf would be more forceful if coupled with an explanation, or perhaps justification, of our justified beliefs in basic modal claims. Unfortunately, van Inwagen provides neither, claiming instead that the provenance and justification of our justified beliefs in basic modal claims is “mysterious” and that he does “not know how to answer these questions.”[[17]](#footnote-17) Van Inwagen’s position then amounts to claiming that we have justified beliefs in basic modal claims, these beliefs are not justified by conceivability, and though it is mysterious how these beliefs are justified they nevertheless are. But absent an explanation for our beliefs in basic modal claims being justified, van Inwagen’s Moderate Modal Skepticism seems in a precarious dialectical position. Herein lies another objection. Consider, van Inwagen’s skepticism – which seeks to undermine many traditional philosophical arguments at once by undermining crucial possibility claims in these arguments – seems more palatable than alternative, more extreme modal skepticism positions – which might claim we lack justified beliefs in *both* basic and non-basic modal claims. Moderate Modal Skepticism at least agrees with commonsense concerning many justified beliefs in modal claims; a more extreme modal skepticism would be objectionable for ruling out too much. To that extent, more extreme version of modal skepticism seem less threatening to philosophical arguments involving possibility claims justified by conceiving than Moderate Modal Skepticism. But then given the dialectical importance of basic modal claims, van Inwagen’s lack of an explanation or justification makes them basic modal claims appear rather *ad hoc*. Put another way, what separates Moderate Modal Skepticism advanced by van Inwagen from less defensible extreme versions of modal skepticism, seems to be little more than van Inwagen’s unprincipled assertion that we have justified beliefs in basic modal claims. That is unsatisfying.

Van Inwagen could avoid the preceding worry by providing a principled distinction between basic and non-basic modal claims. A natural suggestion[[18]](#footnote-18) is that the former, but not the latter, rest on what I will call *default knowledge* – knowledge of possibilities derived from actual experiences. For example, agent S may be justified in believing in the possibility “The Sun will rise tomorrow” because S has experienced the Sun rising several times before. Similarly, agent S may be justified in believing it possible “The table is two feet from the wall” since S has experienced tables occupying various spatial locations in the past. There is then no need for S to rely on conceivability to justify belief in these propositions, and so no requirement that S must imagine a respective possible worlds in minute detail. In contrast, presumably no experience of S’s underwrites justified belief in “There is a perfect being” or “Minds exist without material bodies.” To be justified in such beliefs, S must imagine the respective possible worlds in sufficient detail to preclude compatibility with the falsity of each proposition, a rather extensive task. Thus, it seems we have a plausible way to make sense of the distinction between basic and non-basic possibility claims, justified belief in the former underwritten by experience and justified belief in the latter underwritten – if ever – by conceivability.

But this cannot be quite right. As non-basic possibility data van Inwagen provides propositions corresponding to sentences such as “Naturally occurring purple cows exist” and “Iron is transparent.” At first blush, it seems we lack experience with such things, suggesting they should be classified as non-basic. But blush is misleading. Consider the first. While we can assume S has never experienced naturally occurring purple cows, S may have experienced other naturally occurring purple organisms, e.g. beetles, fish, or even other naturally occurring purple objects. Such experiences might underwrite belief in the possibility of naturally occurring purple cows. Bracketing that, S presumably has experiences suggesting color tends to be an inessential property of entities. Many organisms have different colorings, even within species, e.g. albinos, chameleons. Again, from such experiences it is plausible S might underwrite belief in the possibility of naturally occurring purple cows. If so, then default knowledge does not respect van Inwagen’s own data, since naturally existing purple cows should count as basic possibilities. Similar remarks apply to transparent iron. Given exposure to how light refraction works, S’s belief in the possibility of transparent iron might be underwritten by such experience. Relying on default knowledge provides van Inwagen little help.

It might be objected that the preceding discussion was not fine-grained enough. In the case of naturally occurring purple cows, S must have *direct* experience with such things to underwrite beliefs in their possibility. Since S has no direct experience of naturally occurring purple cows, there is no experience to justify corresponding possibility beliefs. Conceiving then is S’s only recourse. Hence, S is not justified in believing in the possibility of purple cows. In response, note claiming that since S has never directly experienced a naturally occurring purple cow then S cannot be justified in believing naturally occurring purple cows are possible, seems on par with saying S could not be justified in believing the possibility of naturally occurring black swans prior to discovery in Australia, or that S could not be justified in believing the possibility of white ravens prior to experiencing albinos, or that S could not be justified in believing the possibility of an organism changing colors when threatened until experiencing a chameleon. Each strikes me as implausible, since – as indicated above – color is inessential to most entities, but also because it seems rather close to requiring that, say, unless one has experienced *this* table two feet from the wall, then one cannot be justified in believing in the possibility of the table being two feet from the wall, regardless of how many other tables you have experienced occupying various spatial locations. It seems then relying on direct default knowledge provides van Inwagen no more help than less direct default knowledge.

*A Better (?) Response*

We might canvas alternative ways[[19]](#footnote-19) to distinguish basic from non-basic modal claims in the interest of van Inwagen avoiding charges of being *ad hoc*, but the preceding discussion suggests accurately characterizing the data van Inwagen provides will be tricky. Again, absent an explanation for agents being justified in believing basic modal claims, Moderate Modal Skepticism seems to differ from less plausible and more extreme modal skepticism positions only by unprincipled fiat. But perhaps the situation is not so dire. Moderate Modal Skepticism does not need a *firm* distinction between basic and non-basic possibility claims to be preferable to more extreme modal skepticism positions. All that is needed is that *some* distinction be drawn. The possibility of naturally existing purple cows and transparent iron may ultimately be disputable *boundary cases*, but we may nevertheless point to clear examples of basic modal claims, e.g. “It is possible the Sun will rise tomorrow”, and clear examples of non-basic modal claims, e.g. “It is possible for minds to exist without matter.” We simply have justified beliefs in the former basic modal claims; we do not have justified beliefs in the latter non-basic modal claims without appealing to conceivability. Moreover, much as it seems plausible to think we do simply have justified beliefs in the former sorts of modal claims, it also seems plausible we do not simply have justified beliefs in the latter, since, say, if the actual world is one in which minds never exist without matter, the actual world provides no evidence for or against, say, minds might exist without matter. Hence, there is some distinction between basic and non-basic modal claims – motivated by our ability to recognize distinct examples of each category – though a firm distinction between the two categories is not provided.[[20]](#footnote-20) If there is such a distinction, however, Moderate Modal Skepticism is distinguishable from more extreme alternatives, and is more persuasive as an attack on various philosophical arguments to that extent.[[21]](#footnote-21)

While this move may strengthen the dialectical position of Moderate Modal Skepticism with respect to more extreme modal skeptic views, it provides no real explanation or justification for the distinction between basic and non-basic modal claims. Explanations, of course, come to an end somewhere, but one might have hoped for more given the important role basic modal claims play in van Inwagen’s argument. At present, this lacuna in Moderate Modal Skepticism seems a mysterious bullet to bite, and at the very least an area where van Inwagen owes us more.

*Objection 2: Imagined Possible Worlds as Maximal*

We began **Section 2** with an attack on premise **(3)** of van Inwagen’s argument for Moderate Modal Skepticism that wrongly claimed this premise precluded agents from having justified beliefs in basic modal claims. There is, however, another objection to this premise in the vicinity: **(3)** requires agents imagine maximally specified possible worlds in pursuance of *justified beliefs* in certain modal claims from the class UF. But imagining a maximally specified possible world in order to verify a given modal claim seems more a requirement of having *knowledge* that the modal claim is true, rather than mere justified belief in the truth of the modal claim. That seems a rather high demand for justified belief.[[22]](#footnote-22) Why might van Inwagen accept such a strong requirement? Largely, it seems, from observing consistency does not entail possibility[[23]](#footnote-23) and from assuming there are propositions which we either know are false or do not know whether they are true or false.[[24]](#footnote-24) A partial, consistent, imagining of a portion of a possible world in the interest of examining whether a given member p of UF is true, might leave out details that would conflict with p, since our current epistemic situation provides no guidance as to the truth or falsity of p. If so, then such attempted verification of the truth of p might be in error since, had we imagined the relevant possible world in more detail we might have noticed our partial, consistent, imagining could not be consistently extended.

This line of reasoning is perhaps persuasive when directed towards *knowledge* of the truth of propositions from UF, but it seems much less forceful when targeting *justified belief*. With respect to knowledge, it at least makes sense to require ruling out any potential compatibility with a given modal claim under evaluation. With respect to justified belief, however, it seems sufficient to, say, make a good effort in imagining a partial, consistent, portion of a possible world to make sure incompatibilities are excluded and consistency is preserved.[[25]](#footnote-25) Ultimately then, we might accept consistency does not entail possibility and accept van Inwagen’s definition of members of UF without thereby accepting justified belief in members of UF as on par with knowledge of members of UF, as van Inwagen provides no compelling reason to hold members of UF to such a high justificatory standard. This is then another cost of Moderate Modal Skepticism.

Without a contrasting characterization of the link between conceivability and possibility, the costs observed thus far might seem worth paying, despite the extensive consequences the truth of Moderate Modal Skepticism would have for various philosophical arguments. We turn in the next section to a more plausible alternative that makes clear one need not take on the skeptic’s debts.

**Section 3: Moderate Modal Skepticism – Alternative**

In this section, we appeal to Yablo’s well-known characterization of the link between conceivability and possibility as a plausible model for how agents may acquire justified beliefs in the truth of propositions from UF without necessarily knowing said propositions are true. We argue, moreover, that - *pace* van Inwagen – Yablo’s proposal does not entail Moderate Modal Skepticism, and since there are then independent grounds for preferring Yablo’s proposal to van Inwagen’s, there are independent grounds for rejecting Moderate Modal Skepticism.

*Yablo on Conceivability and Possibility*

Yablo’s characterization of the link between conceivability and possibility allows agents to acquire *prima facie* justified beliefs in possibility claims based on conceivability. Yablo[[26]](#footnote-26) argued for the following link between conceivability and possibility: An agent S *conceives* proposition p as possible just in case S can imagine[[27]](#footnote-27) a possible world w that S takes to verify p. Such a proposition is *conceivable*. Possible worlds are understood as complete specifications,[[28]](#footnote-28) though presumably most agents do not imagine in such detail.[[29]](#footnote-29) Yablo suggested we imagine partial specifications of worlds. For example, S might conceive “The cat is on the mat” is possible by imagining a partial specification of a possible world w where the cat is on the mat that S takes to verify this proposition without specifying myriad other details of the possible world. Yablo understands conceiving on analogy with perception, where in each case evidence acquired through these faculties – absent defeaters[[30]](#footnote-30) – may underwrite *prima facie* justified beliefs.[[31]](#footnote-31) Conceiving thus described provides S evidence in the possibility of this claim, and so may underwrite justified belief in this possibility. A natural parallel to conceivable propositions are those propositions that are *inconceivable*. A proposition p is *inconceivable* for agent S just in case S cannot imagine a world w that S does not take to fail to verify p.[[32]](#footnote-32) For example, if every situation or possible world w S might imagine fails to verify “There is an object that is both round and square” then this proposition is inconceivable for S. In contrast to conceivable propositions, Yablo[[33]](#footnote-33) makes no explicit commitment to a link between inconceivability and impossibility, and so no commitment to failures of imagining providing agents justified beliefs in the impossibility of a given modal claim.

Additionally, Yablo’s proposal leaves room for propositions which are *undecidable*, i.e. such that S cannot imagine a world w S takes to verify p and S can imagine worlds S does not take to falsify p. Undecidability is defined as the conjunction of the negation the definition of conceivable and the negation of inconceivable.[[34]](#footnote-34) To illustrate, consider Yablo’s example undecidable proposition “Goldbach’s Conjecture is false.”[[35]](#footnote-35) Since undecidable, S cannot imagine a world w S takes to verify the conjecture is false and S can imagine worlds S does not take to falsify the conjecture as false. One might balk, however. Recalling S may imagine a partial specification of a world, it might be objected that S may imagine a partial specification of a world - and so vicariously imagine a world - S takes to verify the conjecture is false. If so, “Goldbach’s Conjecture is false” should be counted as conceivable, and S has evidence underwriting justified belief in this possibility. Anticipating such a response, Yablo claims imagining a partial specification of a world one takes to verify the conjecture is false falls short of genuine verification, since it is compatible with such an imagining that, say, the conjecture is in fact true but, say, the mathematical community wrongly believes there is a counterexample.[[36]](#footnote-36)

Altogether then, Yablo provides a plausible link between conceivability and possibility that may underwrite justified beliefs in some modal claims, while providing a harmonious analysis of inconceivability and undecidability with respect to other modal claims.

*Yablo’s Moderate Modal Skepticism?*

Though we have presented Yablo’s proposal as an alternative to the Moderate Modal Skepticism characterization of the relationship between conceivability and possibility, van Inwagen in fact claims Yablo’s characterization leads to this skeptical position.[[37]](#footnote-37) This seems to be because van Inwagen takes member propositions in the class UF to be undecidable (in Yablo’s sense of the term).[[38]](#footnote-38) For conceivability to provide justification for belief in undecidable propositions, one must be able to imagine a maximally specific possible world in full detail. The result is that conceiving leading to a justified belief in the possibility that “Goldbach’s Conjecture is false” as on par with conceiving leading to a justified belief in the possibility that “Naturally occurring purple cows exist.” For van Inwagen, in neither case can conceiving provide justification. Hence, van Inwagen concludes agents cannot have even *prima facie* justified beliefs in their truth through conceiving. If van Inwagen has interpreted Yablo correctly, then Yablo’s proposal does seem to lead naturally to Moderate Modal Skepticism.

But van Inwagen gives us little reason to read Yablo’s discussion of undecidable propositions as providing a general epistemic constraint on conceivability, and such a reading is not forced upon us. More charitably, Yablo’s discussion here is restricted to truths uncovered by logical or mathematical reasoning, and so outside the scope of membership in UF. In other words, conceivability will not provide evidence for or against the truth of, say, Goldbach’s Conjecture, since the evidence called for with respect to the corresponding proposition is *proof*; verification of the truth of the possibility of some logical/mathematical claim amounts to verifying the claim as a matter of fact. Here, it seems plausible that justified belief and knowledge with respect to modal claims coincide and so here it seems van Inwagen’s demanding constraint on conceivability and possibility is plausible. However, there is no need to impose this high demand on, say, the justified belief in the truth of the possibility of “Naturally existing purple cows exist.” Proof seems unmotivated in this case. If this – more charitable – reading of Yablo is accurate, then Yablo’s characterization of the link between conceivability and possibility need not lead to Moderate Modal Skepticism, despite van Inwagen’s insistence to the contrary.

*Conclusion*

Moderate Modal Skepticism claims while we have many justified beliefs in modal claims we commonly take ourselves to have, modal claims remote from ordinary experience require justification through conceiving maximally specified possible worlds, a feat demanding enough to make philosophical arguments employing such remote modal claims suspect. Moderate Modal Skepticism avoids collapsing into more extreme – and less plausible – modal skepticisms by relying on an under described distinction between basic and non-basic modal claims, which calls out for further explanation. Moderate Modal Skepticism treats justified beliefs in the truths of certain modal claims as on par with knowing the truth of those modal claims, a high demand with little motivation. These costs are all the more stark when contrasted with Yablo’s characterization of the link between conceivability and possibility, which neither relies on an unexplained distinction between basic and non-basic modal claims nor imposes unmotivated demands on justified beliefs with respect to modal claims. Where Yablo does impose such a high demand, it concerns either logical/mathematical claims. Though van Inwagen, the architect of Moderate Modal Skepticism, claims Yablo’s proposal leads directly to his skeptical thesis, this seems motivated by an uncharitable reading of Yablo’s constraint on justified beliefs in logical/mathematical modal claims as applying to modal claims remote from ordinary experience, i.e. of the sort one might find in philosophical argument. More charitably read, Yablo’s proposal does not lead to Moderate Modal Skepticism. Moreover, given the costs associated with Moderate Modal Skepticism and Yablo’s proposal as a viable alternative, there are reasons to prefer the latter characterization of the link between conceivability and possibility to the former. Since the latter does not lead to Moderate Modal Skepticism, philosophical arguments targeted by van Inwagen’s skeptical considerations appear unscathed.

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1. (Putnam, 1980)’s super-Spartans; (Putnam, 1975)’s twin-earth; (Lewis, 1980)’s pained Martians; (Jackson, 1986)’s Mary; (Chalmers, 1996)’s zombies, etc. [↑](#footnote-ref-1)
2. Cp. (Chalmers, 2002); others tie modal knowledge to counterfactual reasoning (Williamson, 2007), (Kroedel, 2017). [↑](#footnote-ref-2)
3. (Yablo, 1993). [↑](#footnote-ref-3)
4. (Van Inwagen, 1999). [↑](#footnote-ref-4)
5. Worth noting: van Inwagen denies logical possibility as a legitimate species of possibility (van Inwagen, 1999, pg. 71) by claiming – rightly, I think – that one cannot infer from p not being logically impossible to p being logically possible. But van Inwagen seems to be reading “logical possibility” epistemologically, rather than ontologically. Surely though if Goldbach’s Conjecture is true, it is necessarily true, and so its negation is impossible regardless of whether it is epistemically possible for us to discover this. I take this to suggest there is a possibility broader than epistemological possibility. A more charitable way to read van Inwagen is as simply rejecting there are logical possibilities that are not metaphysically possible. That is the reading I assume in what follows. [↑](#footnote-ref-5)
6. The following presentation tracks van Inwagen’s ‘more careful’ argument (Van Inwagen, 1999, pg. 74, fn. 17). [↑](#footnote-ref-6)
7. Let “p” be a variable over propositions; “S” a variable over agents; “w” a variable over possible worlds; with hashed p’, S’, and w’ as constants. “SUPPOSE” indicates what follows on the line is supposed. [↑](#footnote-ref-7)
8. (Van Inwagen, 1999, pg. 73). [↑](#footnote-ref-8)
9. (Van Inwagen, 1999, pg. 71-2). [↑](#footnote-ref-9)
10. (Yablo, 1993); (Van Inwagen, 1999, pg. 77). [↑](#footnote-ref-10)
11. Cp. (Yablo, 1993, pgs. 30-3)’s remarks concerning undecidable propositions. [↑](#footnote-ref-11)
12. (Van Inwagen, 1993, pg. 80-1). Cp. (Hartl, 2016, pgs. 273-4) too observes ambiguity. [↑](#footnote-ref-12)
13. (Van Inwagen, 1993, pg. 78). Van Inwagen claims no one *has* imagined a possible world in sufficient detail to justify belief in the possibility of transparent iron, and that no one *can* imagine a possible world in sufficient detail to justify belief in the possibility of naturally occurring purple cows. I take the stronger claim as applying to both cases. [↑](#footnote-ref-13)
14. (Van Inwagen, 1999, pg. 70) draws an analogy to this variety of skepticism and that of Cicero, Sextus, and Montaigne, rather than that of Descartes. Presumably, a more extreme modal skepticism would claim we lack any justified belief in anything other than, say, trivial possibility claims, e.g. that there is a table before me entails it is possible there is a table before me. More on this below. [↑](#footnote-ref-14)
15. The objection is (Geirsson, 2005)’s, and (Hawke, 2011), (Hartl, 2016), (Leon, 2017) each claim van Inwagen’s argument is susceptible in this way. But none of these authors seem to take seriously enough van Inwagen’s distinction between basic and non-basic modal claims. While van Inwagen claims conceivability does not provide one justification in modal claims, he does *not* claim any justification one has in a modal claim must come from its conceivability. [↑](#footnote-ref-15)
16. Consider another example we know: “It is possible the table is two feet from the wall.” Assuming this is false and we cannot determine its truth-value by logical, semantic, or mathematical reasoning, van Inwagen would count this as *basic*. Otherwise it would be a member of UF, and so justified belief would require imagining a world we take to verify it. But there are reasons to think no one has imagined a world in sufficient detail to preclude compatibility, say, with the table in question having been replaced by a duplicate in the imagined world. Hence, since we *are* justified in believing this proposition is true, it must be basic. [↑](#footnote-ref-16)
17. (Van Inwagen, 1998, pgs. 77-8). [↑](#footnote-ref-17)
18. (Hawke, 2011) advocates a similar proposal to strengthen van Inwagen’s argument - involving actuality and similarity constraints, and logical entailment. But on Hawke’s proposal it is not *conceiving* that results in justified beliefs, it is *entailment*. Transposed to van Inwagen’s argument, this amounts to claiming we know basic modal claims are true by logical, semantic, or mathematical reasoning. But van Inwagen is explicit that basic modal claims are not those known true based on entailment. Related, (Hartl, 2016) argues since Hawke’s proposal relies on a rather demanding conceivability constraint, it is susceptible to Geirsson’s objection originally posed against van Inwagen. [↑](#footnote-ref-18)
19. Another natural suggestion is to rely on ‘modal intuition’ to distinguish basic from non-basic modal claims. This seems, however, to label the problem rather than solve it. [↑](#footnote-ref-19)
20. By analogy, we might think the categories are differentiated not by *definition* but by *elucidation* where the latter is taken as a primitive from which definitions are constructed (Frege, 1971, pgs. 4; 301). [↑](#footnote-ref-20)
21. (Van Inwagen, 1999, pgs. 81-2) motivates Moderate Modal Skepticism as an attack on philosophical arguments by claiming that since conceivability cannot provide justified beliefs in boundary cases, e.g. “Possibly naturally occurring purple cows”, conceivability cannot provide justified beliefs in remote cases, e.g. “Possibly minds exist without matter.” But it is not intuitive that conceivability cannot provide justification in boundary cases (Hartl, 2016, pg. 285); (Geirsson, 2005, pg. 2009), and to that extent van Inwagen’s argument is weakened. Were van Inwagen to adopt the strategy outlined here, it would be natural to drop boundary cases altogether. Rather than argue *from* conceivability failing for boundary cases *to* conceivability failing for remote cases, he might simply maintain conceivability fails for remote cases. [↑](#footnote-ref-21)
22. Moreover, if knowledge is understood to entail justified belief, then **(3)** requires agents have justified beliefs in the truths of propositions of UF just in case they have knowledge of the truths of said propositions. [↑](#footnote-ref-22)
23. (Van Inwagen, 1999, pg. 70-1). [↑](#footnote-ref-23)
24. (Van Inwagen, 1999, pg. 84, fn. 17). [↑](#footnote-ref-24)
25. Cp. (Hartl, 2016, pg. 274)’s platitudinous, “being skeptical about knowledge and justified belief is not the same.” [↑](#footnote-ref-25)
26. (Yablo, 1993, pg. 29-30). [↑](#footnote-ref-26)
27. Note, by “imagine” Yablo does not intend ‘imaging’ (Yablo, 1993, pg. 27). [↑](#footnote-ref-27)
28. There are many ways to spell this out. For our purposes, a possible world is a maximally consistent set of statements, i.e. a set of statements such that for any statement s, either s or its negation is a member of the set. [↑](#footnote-ref-28)
29. (Yablo, 1993, pg. 28). [↑](#footnote-ref-29)
30. See (Hartl, 2016) for a detailed list and application of various defeaters Yablo might adopt. [↑](#footnote-ref-30)
31. (Yablo, 1993, pgs. 27-9). [↑](#footnote-ref-31)
32. (Yablo, 1993, fn. 60). [↑](#footnote-ref-32)
33. See (van Inwagen, 1999, pg. 78-9) for discussion. I would hazard though that repeated failures in imagining a round square provide S some evidence underwriting S’s justified belief that such a thing is impossible. [↑](#footnote-ref-33)
34. (Yablo, 1993, pg. 31). [↑](#footnote-ref-34)
35. (Yablo, 1993, pgs. 30-3). [↑](#footnote-ref-35)
36. One might balk still, claiming S can imagine a possible world by simply stipulating the conjecture is false, and thereby gain evidence as to the possibility of “Goldbach’s Conjecture is false.” This is a non-starter, it seems, since then justified belief in modal claims would be too easily acquired. [↑](#footnote-ref-36)
37. (Van Inwagen, 1999, pgs. 77-8). (Hawke, 2011) reads Yablo similarly, but see (Hartl, 2016) for persuasive dissent. [↑](#footnote-ref-37)
38. (Hartl, 2016, pg. 279) and (Hawke, 2011) claim van Inwagen takes Yablo’s discussion of undecidability as a “general epistemological constraint” on conceivability [↑](#footnote-ref-38)