

On the Possibility of Skeptical Scenarios

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Consider this picture of the skeptical dilemma: Descartes sits in his armchair, wondering what the world is like, and worried whether it is as it seems to be. He realizes that there are many ways the world could be — many possible ways for the world to be — that he lacks the resources to choose between. Since all the possibilities he's considering include his having experiences like the ones he has actually had, experience cannot help choose between them.

In this paper I argue that if the purported possibilities in the above picture are supposed to be *genuine metaphysical possibilities*, this line of skeptical reasoning does not straightforwardly succeed. The above sketch assumes that Descartes can know the metaphysically possible ways the world might be from the armchair.¹ That assumption raises questions about modal epistemology — conceivability and possibility, intuitions about possibility — that have received extensive treatment in the philosophy of mind literature. I argue that plausible constraints in modal epistemology show that justification for believing that certain global skeptical scenarios are metaphysically possible rests on some justified beliefs about the external world, and that this would undermine the skeptical argument. While there may still be local skeptical challenges, skeptics cannot appeal to the metaphysical possibility of skeptical scenarios to generate global external world skepticism.

1. Skeptical Scenarios and Metaphysical Possibility

My focus is on skeptical arguments that deploy skeptical scenarios to reach their conclusion. Skeptical scenarios are, of course, ubiquitous in epistemology. Suppose that I claim to know that O. For our purposes here, a skeptical scenario describes a situation in

¹ Some philosophers interpret Descartes as endorsing just this kind of reasoning. “Each reason for doubt must be a metaphysical possibility,” writes Markie (1986). “We capture Descartes’s remark that even the least ground for suspicion can be a reason for doubt by letting metaphysical possibilities be grounds for doubt” (pp. 45–46).

which I come to believe that O — which will usually involve describing how I come to have the experiences I do — and yet either a) O is false, or b) O is true but I do not know that O. A well-chosen skeptical scenario is supposed to raise doubt about my claim to know that O; one thought is that they do so by raising skeptical *possibilities*. Talk of “possibility” is also ubiquitous in the skepticism literature. Contextualism and relevant alternatives theory routinely speak of alternative possibilities, as do recent books by Greco (2000) and Pritchard (2005).² Philosophers couch skeptical arguments in other modal terms as well: the skeptical scenario is *consistent* with my experiences; given only my experiences, the skeptical scenario *could* be true.³

The connection between skeptical scenarios and possibility is, at first blush, fairly straightforward. Skeptical scenarios introduce a possibility that, given my current evidence, I am ostensibly unable to rule out. The skeptical conclusion follows from my inability to rule out this possibility. (I remain agnostic on what it takes to rule out a skeptical possibility; my focus here is not on how we rule out skeptical possibilities but on which skeptical possibilities we need to worry about in the first place.)⁴

Here are examples of both a)- and b)-type scenarios from *The Matrix*. I claim to know that I have hair. In *The Matrix* all humanity is attached to an enormous computer network — the Matrix — that simulates late 20th century Earth. Each human body is shaved completely bald, envatted in a tub of viscous goo, and hard linked to the Matrix via a cable inserted directly into the brain. In the Matrix scenario, then, my belief that I

² For early statements of contextualism, see e.g., DeRose (1995) and Lewis (1996); for relevant alternatives theory, see e.g., Dretske (1970), Goldman (1976), and Stine (1976). Both views have many proponents and many variants in the current literature.

³ Schiffer (2004), for instance, uses both expressions.

⁴ The literature contains several ways to argue from our inability to rule out a skeptical possibility to the skeptical conclusion. Let the skeptical hypothesis SH be the proposition that completely describes the chosen skeptical possibility. In many recent discussions of skepticism, the skeptical argument invokes a closure principle.

C1. You do not know that not-SH.

C2. If you do not know that not-SH, then you do not know that O.

C3. You do not know that O.

The skeptic contends that our inability to rule out the chosen skeptical possibility makes C1 intuitive.

Another skeptical argument that has gained popularity recently is the underdetermination argument.

U1. Your evidence for O does not favor O over SH.

U2. If your evidence for O does not favor O over SH, then you do not know that O.

U3. You do not know that O.

Again, a well-chosen skeptical scenario is supposed to make premise U1 intuitive.

have hair is false: it's a type a) scenario. The fact that my belief *could* be false is supposed to raise doubts about my claim to know that I have hair.

Now consider my claim to know that I have hands. Humans attached to the Matrix still have their hands, so my belief isn't false, but it is clear that in the scenario I don't know that I have hands. We have a type b) scenario: because it is possible that there is the wrong kind of connection between my beliefs and the facts, meaning that even if my belief is true it's by accident, we should therefore doubt my claim to know that I have hands.

Though many philosophers state the skeptical argument in terms of our inability to rule out *possible* skeptical scenarios, they often don't specify the sense of 'possible'. Contextualists and relevant alternative theorists frequently write this way, though they aren't by any means the only ones. Here is an example chosen more or less at random: Conee and Feldman (2004) formulate the "introspective indistinguishability" argument for skepticism and note that "this traditional concern about a possibility of misleading appearances is captured by the possibility...of false beliefs with no introspectable difference from true beliefs" (p. 279). But they say nothing more about the kind of possibility they have in mind.

I want to examine the consequences of taking the relevant sense of 'possible' to be *metaphysical possibility*. Let me give three reasons for focusing on the metaphysical possibility requirement.

First, the stance enjoys some plausibility. There are well-known worries that skeptics who assert that skeptical scenarios are epistemically possible, where epistemic possibility is glossed as "true for all you know...", risk begging the question against the anti-skeptic. The Moorean anti-skeptic might insist: the Matrix scenario isn't true for all I know...⁵ And requiring less than metaphysical possibility might seem to invite skeptical challenges to *a priori* knowledge, which strikes many as implausible.⁶ On the other hand, if a skeptical scenario is metaphysically possible — if it really *could be true*, period, and not just could be true "for all we know..." — that seems like a reason to take

⁵ See, for example, Lewis (1996, pp. 423–24) and Beebe (forthcoming, §V).

⁶ Some philosophers, such as Beebe (forthcoming), do take the *a priori* skeptical challenge seriously. But Beebe sees himself as arguing against the received view that *a priori* skepticism is a non-starter.

the scenario seriously. If a skeptical scenario is another way the world *could* be, then there are two *genuine* alternatives, two metaphysically possible hypotheses about how the world is, the external world hypothesis and the skeptical hypothesis. Because your evidence is *metaphysically consistent* with both, and because everything would seem relevantly similar if the skeptical hypothesis were true, your evidence appears powerless to choose between the two.

Second, perhaps motivated by considerations like these, a number of philosophers couch skepticism more or less explicitly in terms of the metaphysical possibility requirement. Bonjour (2002), for example, requires that skeptical scenarios be “genuinely possible”:

The versions of skepticism in question [that rely on skeptical hypotheses] are committed to the positive claims (a) that the hypotheses in question are genuinely possible, and (b) that all of the various relevant sorts of evidence could have existed in the same way even if the skeptical hypotheses were true, with both of these claims presumably being alleged to be established on an *a priori* basis. (p. 262)

Pryor (2000) suggests that skeptical scenarios must at least *seem* metaphysically possible.

The hypothesis that all of our present experiences are the deceptions of an evil demon is not absurd. It seems to be a genuine metaphysical possibility. So we can't reject that hypothesis out of hand. If we do know that we're not being deceived by an evil demon, it's plausible that that knowledge would have to rest on things we know about our environment on the basis of perception. (p. 524)

Graham (2007, 2008) is the most explicit. He states the “radical skeptical” argument simply as:

1. Massive error is possible about the external world.
 2. A belief is *prima facie* justified only if formed in a way where massive error is not possible.
 3. Thus, it is a priori that no belief about the external world is *prima facie* justified.
- (2007, p. 29)

Graham explicitly labels 1) a metaphysical thesis.⁷ Hence in starting with metaphysical possibility requirement, we engage with a view that some philosophers endorse.

Third, sensitivity, safety, and relevant alternative theories are most plausibly understood in terms of metaphysically possible alternatives, and hence the metaphysical possible requirement. Proponents often describe these views with a possible worlds framework. Relevant alternatives are those that are true in “nearby” possible worlds; skeptical hypotheses are irrelevant because they are true only in “remote” possible worlds. It’s most plausible that the worlds in question are metaphysically possible worlds. Sensitivity and safety are analyzed with subjunctive conditionals, and those conditionals are usually glossed with possible world semantics. To determine whether I know that I have hair, for example, the sensitivity view tells us to evaluate the conditional, “If I were to lack hair, I would not believe that I had hair.” The conditional’s truth depends on whether, in nearby possible worlds where I lack hair, I believe that I lack hair. Again, these are metaphysically possible worlds. To drive this point home, consider how these views explain the barn country case (Goldman 1976). These views hold that Henry’s true belief that there is a barn in front of him does not count as knowledge because, in a nearby possible world, Henry is looking at a barn façade; there, his belief is false. For this analysis of the barn case to make sense, nearness had better not be a function of Henry’s epistemic position. It’s a metaphysical fact that holds regardless of Henry’s beliefs or evidence. Nearness and remoteness are metaphysical notions.⁸

While I have explained why I focus on the metaphysical possibility requirement, I have offered no argument that skeptical scenarios must be metaphysically possible to raise legitimate doubt. Some will disagree with this requirement, and argue for a less demanding requirement. Beebe (forthcoming), for example, argues that not only do skeptical scenarios not need to be metaphysically possible, they do not need to be logically or epistemically possible either. In this paper, I set such arguments aside. They deserve treatment in their own right, and I argue against them elsewhere.⁹ The metaphysical possibility requirement enjoys some plausibility, and a number of authors accept it. My

⁷ See also Pryor (2000, note 11).

⁸ This third point applies to some contextualist views as well, such as Lewis (1996).

⁹ See Kung (2009c), where I argue for the metaphysical possibility requirement.

aim is to examine the metaphysical possibility requirement, and show how it sheds light on the structure of skeptical arguments.

A few notes before we turn to the main argument.

I will restrict myself to skeptical scenarios in which proposition *O* is false. That is primarily for ease of exposition. (It does also seem to me, however, that skeptical challenges to our justification for believing that *O* are more effective when *O* is false in the skeptical scenario.) Also for ease of exposition, I focus on skeptical challenges to justification, rather than knowledge. The difference between knowledge and justification skepticism won't bear on my arguments here.

Skeptical scenarios purport to raise doubt. I am assuming that to do so, the scenario must be metaphysically possible. Therefore, for us theorists to be justified in believing that a skeptical scenario raises doubts, we have to be justified in believing that the scenario is metaphysically possible. Recall Graham's argument above: to be justified in believing the skeptical conclusion 3), you have to be justified in believing premise 1). If there are metaphysically possible skeptical scenarios that no one is justified in believing to be metaphysically possible, I suppose we should say those scenarios generate doubt. But that fact hardly seems epistemically relevant. Hence our focus will be on whether we are justified in believing skeptical scenarios are metaphysically possible.

Here is the plan for what follows. In section two I outline some constraints on modal epistemology. In section three I use these constraints to diagnose whether we are justified in believing that several well-known skeptical scenarios are metaphysically possible. (Henceforth by 'possible' I will mean metaphysically possible.) I argue there that not all skeptical scenarios are created equal. For some — ones that we think of as extremely "remote" — we lack justification for thinking that they are possible.¹⁰ Others we are justified in believing to be possible, however that justification depends on our having antecedent empirical justification about the external world. After addressing an important objection in section four, I conclude that no global external world skepticism that appeals to metaphysically possible skeptical scenarios succeeds.

¹⁰ Levin (2000) adopts a similar strategy, arguing that we have no evidence that a demon deceiver is metaphysically possible. However the both his argument and the details are quite different.

2. Constraints on Modal Epistemology

Since our task is to determine whether we are justified in believing that skeptical scenarios are possible, we can draw on the extensive modal epistemology literature that has emerged in philosophy of mind. Modal epistemology is an enormous topic in its own right, and any substantive claim falls afoul of *some* theory. I begin with two widely shared assumptions. First, *imagining* that P provides evidence that P is metaphysically possible. To keep the paper's scope manageable I will not address other putative sources of modal evidence, though in the concluding section I will briefly comment on the prospects for extending the argument I present here to other putative sources of modal evidence.¹¹ The second assumption is that *merely supposing* that P provides no modal evidence.

Now I need to add two less widely shared but plausible assumptions. These next two assumptions introduce a bit of detail, but the idea is simple. Imagination is a faculty that combines and rearranges the things discovered in the actual world in new ways. It allows us to literally picture these new combinations, and that is how it provides us with evidence that the new combinations are possible.

2.1. Picturing and Assigning

Because the modal epistemology I endorse is imagination-based, we need a quick investigation of imagination and its content.

Sensory imagination involves mental imagery: pictures in the mind's eye, sounds in the mind's ear, and so on. Imagine that Justin Timberlake sings a duet with his doppelganger Dustin. You picture two guys who look just like Justin; say one wears a brown shirt while the other sports black. You hear the familiar croon in your mind's ear. (I'll stick to the visual aspect from here on in.) The third assumption is that when we imagine a situation, while some content is *pictured*, other content is what we can call *assigned*. You picture the color of Justin's shirt, for example; that color is depicted in the mental image. The image also depicts the appearance of both guys' faces. The rest of the

¹¹ Among proponents of imagining as a guide to possibility: Hume, of course, as well as Chalmers (2002), Geirsson (2005), Gregory (2004), Hart (1988), Hill (1997), Kung (forthcoming), and Yablo (1993). I believe other putative sources — non-imaginative conceiving, intuition, and so on — are either confusingly vague, too limited, or depend on imagining. I do not defend these claims here; see Kung (forthcoming) for limited discussion.

content — what isn't pictured — is assigned. In addition to surfaces, colors, shapes and so on that you picture, you were also imagining *Justin* wearing the brown shirt and *Dustin* wearing the black. The facts about which identical looking guy is which are assigned.

Though the pictured/assigned distinction is a fairly intuitive, making it precise will require some work. I will lean on an account of imagination that I have worked out in some detail in Kung (forthcoming).

Consider perceptual experience for comparison. Perceptual experiences have representational content that present in a direct and immediate way aspects of the world around us, aspects that we would ordinarily say that we are conscious of. Imagination has similar pictorial content: you picture in your mind's eye objects of varying colors and shapes distributed in three-dimensional space. What you picture is at least the traditional primary and secondary properties. Justin's shirt, for example, is brownish and vaguely rectangular.

Your imagining has much content that isn't pictorial, that isn't "painted" in your mind's eye. What makes it true that Dustin wears black and Justin wears brown, rather than vice versa? Assignment. The two men look exactly alike, but there's content to your imagining that goes beyond mere appearances. Suppose you imagine Justin and Dustin performing at the Super Bowl halftime show. That it's the Super Bowl, that the Super Bowl is in Tampa Bay this year, that the television audience has never seen Dustin before: these imagined facts aren't pictured, they are assigned.

You can change what you imagine without changing the mental picture. Use the same mental picture to imagine Dustin wearing brown and Justin wearing black. Imagine that they perform before the Pro Bowl, rather than at Super Bowl halftime. The difference in your two imaginings is in the assignments.

For completeness the next three paragraphs delve into more detail about assigned content. The details won't figure in our discussion of skeptical scenarios, so readers eager to see how the argument plays out should feel free to skip to the next subsection.

Some assigned content is assigned to "pictured" items. The basic pictorial content provides, in the visual case, the "purely pictorial" content described above. But the various objects, regions, surfaces, and so on presented by the mental image come already

categorized; they have conceptual contents already assigned. In imagining Justin’s doppelganger singing harmony, I conjure up a certain mental image. The image depicts a figure who appears a certain way, and this figure is simply imagined *as* Justin’s doppelganger. This requires no extra activity on my part — I don’t have to examine my mental imagery and *recognize* the figure depicted — the figure in the image comes pre-labeled with the concept <Justin’s doppelganger>. These *labels* are one kind of assigned content. Imagining Dustin will have a great many other labels that encapsulate quite a bit of information: the large round object is labeled <head>; the protuberance on the head is labeled <nose>; and so on. If the o_i are imaginary objects presented by the mental image (“object” should be understood quite loosely, to include regions, stuffs, events, etc. as well as proper objects), then the label content might be: that o_1 is F; that o_2 is F and o_2 is G; that o_3 is F and o_3 is G.¹²

A second kind of assigned content is *stipulative content* — propositional content that goes above and beyond that of the mental image. Some assignments do not reference anything in the mental image; they fill in background information about the imagined situation (e.g., that it is Super Bowl Sunday). Others make claims about objects in the mental image. When I imagine that Justin and Dustin were both victims of a Ponzi scheme two years ago, the mental image depicts the brown clad figure imagined *as* Justin and the black clad figure as Dustin: the figures are labeled with the concepts <Justin> and <Dustin> respectively. That the two were victims of a Ponzi scheme is stipulated; nothing in the image is imagined as the Ponzi scheme.

The term “assigned content” is a loose way of referring to all information captured by labels and stipulations; any piece of this information is an *assignment*. Assigned content covers background stipulations as well as the labels and stipulations made about the objects presented by the mental image. It also covers whether these labels and foreground stipulations are made of the same or distinct objects. Here’s how this plays out in our duet example. Again, think of mental image as presenting a domain of

¹² Labels capture the sense in which an experience, either perceptual or imaginative, can have a richer content than just primary and secondary properties, as Siegel (2006) and Siewert (1998) argue. Following Siegel and Siewert I assume that you perceive or imagine a nose and a head, rather than just nose-like and head-like shapes; label content provides non-basic pictorial content of an experience.

“things.” Assignments include content like $(\exists x_1)(\exists x_2)(\text{IsJustin}(x_1) \ \& \ \text{IsJustinDoppelganger}(x_2) \ \& \ x_1 \neq x_2)$, which says that two *distinct* things pictured are Justin and his doppelganger. Imagining a different case, where the same person has two names, would have assigned content like $(\exists x)(\text{IsPeterParker}(x) \ \& \ \text{IsSpider-Man}(x))$, which says that a *single* the thing pictured is both Peter Parker and Spider-Man.

With this view of imagining in place, let’s turn to modal epistemology.

2.2. Why Assignments Are Like Suppositions

This theory of imagination leads to the fourth assumption: just as supposing provides no modal evidence, neither do assignments provide modal evidence. Why might this be true? In slogan form, the answer is: “assignments making imagining the impossible possible.” The problem with assignments is that, like suppositions, they are almost completely unconstrained. We can imagine just about *anything*, including impossible situations, via assignments. Because assignments have so few constraints — for just about any P, we can imagine that P via assignment — imagining via assignment provides no modal evidence: imagining via assignment fails to discriminate between possible and impossible Ps.

I am inclined to accept that, as an empirical fact, there are some things we are unable imagine, even via assignment. It is difficult to imagine via assignment that $1+1=79$, for example. Here is a tentative proposal that explains our difficulty: the principal constraint on assignment is absolute certainty. By ‘absolute certainty’ I mean the strongest possible psychological certainty: to have absolutely no doubts at all, for there to be nothing one is more certain of.¹³ This kind of absolute certainty marks the *cogito* and very few other propositions. Assume that psychological certainty confers the very best epistemic status.¹⁴ I propose: so long as we find P *believable* — true for all we know with absolute certainty — we will be able to imagine P via assignment. This suggestion has a plausible commonsense explanation. In being less than absolutely certain that a proposition is true, we leave a tiny bit of room to imagine a way for it to be false. For propositions that are absolutely certain, there isn’t even this tiny bit of room. I am

¹³ See Unger (1975, ch. II).

¹⁴ See Reed (2008) for discussion. Rejecting the assumption that psychological certainty confers epistemic status only undermines imagining via assignment as evidence for possibility.

extremely confident that I have hands. But I am not absolutely certain of it; I can imagine a skeptical scenario in which I don't. On the other hand because I am absolutely certain that $2=2$, I can imagine no way for it to be false.

Let P be some proposition whose metaphysical possibility we are trying to establish via imagining. The mere fact that we find P (or possibly P) believable, and hence can assign that P in an imagining, provides no evidence that P is possible. Believability is just lack of certainty (let us use 'non-certainty' to denote lack of certainty; it avoids the unwanted connotations of 'uncertain'). Non-certainty does not count as evidence of P 's possibility because being non-certainty means falling short of the very best epistemic position one can be in, and falling short of the best epistemic position is evidence for nothing. *Total ignorance* is one way to fall short of the best epistemic position; surely ignorance provides no evidence for possibility.

We need positive evidence to support possibility claims. Assignments don't provide it because they may merely reflect our less-than-ideal epistemic position. Assignments are like suppositions: just as we do not take *merely supposing* that P to be evidence of P 's possibility, *imagining via assignment that P* similarly provides no modal evidence either.

In short, imagining that Q via an assignment that P provides no evidence that P is possible; if P is required to make Q true in the imagined situation, the imagining provides no evidence for Q 's possibility either unless you possess some independent evidence that P is possible.¹⁵

¹⁵ I present and defend a detailed theory of imagining and imagination-based modal epistemology in Kung (forthcoming) and Kung (2009a). I argue for assumptions three and four at length. For instance, I acknowledge that there are other constraints on stipulation besides certainty — the puzzle of imaginative resistance is one example — but I argue that these other constraints fail to carry modal epistemological weight. Imaginative resistance does not show that assignments can be evidence for possibility because the *absence* of imaginative resistance is not an epistemic credit.

The fact that my view explains *why* some imaginings are not evidence for possibility — and the explanation says more than just that we later discovered that what was imagined was impossible — is a significant advantage that my view has over other imagination-based views like Geirsson (2005), Hart (1988), and Yablo (1993). Those views either resort to an implausible error theory (see note 16 below), or they fall back to the claim that imagining provides only *prima facie* modal evidence that can be defeated upon further examination. Skeptics of imagination-based modal epistemology like Byrne (2007), Fiocco (2007), and Tidman (1994) are rightly unsatisfied with either response; their central complaint is that imagination is overly "promiscuous" (to borrow Byrne's term). See also Van Inwagen (1998).

All this has been very abstract. Let's go through a few examples to get a feel for how the third and fourth assumptions play out in practice.

Imagine a teenager traveling back to 1955 in a DeLorean and, through a series of mistaken-identity-fueled madcap adventures, changing his father from ineffectual loser into confident leader. As we visualize a scene between the kid and his adolescent dad we *assign* that the scene is taking place in 1955 for “the second time.” For the scenario to really be one of past-changing time travel, we have to imagine that 1955 has already happened “the first time” and what we envisage is happening in 1955 the “second time.” The crucial claim — that it is 1955...*again* — is assigned. By the above assumptions, this stipulation provides no evidence that it is possible for 1955 to occur “again.” Unless we can provide some independent evidence that 1955 could happen a second time, imagining this scenario provides no evidence that past-changing time travel is possible.

I imagine myself receiving the Fields medal for proving Goldbach's conjecture. Renowned mathematicians marvel at my mathematical ability and, given my limited background, then reckon my discovery to be the most startling since Ramanujan's. It is clear that I imagine (and I suggest that you also have imagined) — via assignment — that *I really have proved it*. I imagine that my Fields medal-winning journal article contains the proof. I am not imagining myself as some kind of charlatan; my imagining would have quite a different character if I were.

I can also engage in a similar imaginative project: I can imagine that I have disproved Goldbach's conjecture. Now maybe if this were to actually happen it would be a more stunning feat, because most mathematicians believe the conjecture to be true. That's irrelevant. My imaginings do not contain any mathematical detail. I do not imagine any steps in my prize-winning proof; I'm simply imagining some heretofore undiscovered, yet, as far as my imagining goes, *unspecified*, mathematical details that I have miraculously managed to uncover.

In each imagining the key fact — that Goldbach's conjecture is true and I have proved it, or that Goldbach's conjecture is false and I have disproved it — is assigned. (Compare to: Justin and Dustin are performing on Super Bowl Sunday.) Hence these

imaginings are no evidence that Goldbach's conjecture could be true or false. And that's a good thing: imagining is no substitute for actual proof.

Imagine two eighteenth-century men, one a white-suited white-haired Samuel Clemens, the other Mark Twain, dressed in the simple clothing of a riverboat pilot. Imagine they are cursing one another and fighting: Twain hits Clemens with a left cross. As with Justin and Dustin, the each person's identity is assigned. You assign the white-suited figure the label <Clemens> and the riverboat pilot the label <Twain>. The two assignments entail that, in the imagined situation, Clemens is not Twain. Hence the imagining provides no evidence that it is possible that Twain \neq Clemens.¹⁶

The above considerations show that imagining something solely by assignment provides no evidence for possibility. So much the worse for sensory imagination, the reader might think. Good things we have other sources of modal evidence. But I think the above considerations apply both to nonsensory imagination and non-imaginative conceivability (just 'conceivability' for brevity). We can give a summary verdict on nonsensory imagination as a source of evidence for possibility. It isn't. Nonsensory imagination is simply assignment (more specifically, to use the terminology from the end of section 2.1, since labels require imagery nonsensory imagination is simply stipulation). Since nonsensory imagining is pure assignment, it is no better evidentially than pure assignment, which is to say, not evidence at all.

What about conceiving? I share many authors' suspicion about conceiving. Until we have a complete and satisfying account of what conceiving is, I think philosophers are right to be uneasy about conceiving as evidence for possibility.¹⁷ Conceiving seems very

¹⁶ In Kung (2009b) I analyze most Kripkean *a posteriori* necessity cases this way: we imagine an impossible situation by assigning the *a posteriori* facts – that the same stuff is both water and XYZ, that two distinct planets are Hesperus and Phosphorus, that this woman is both the Queen and the Truman's daughter. Hence these imagining were never evidence that the identities were contingent. A strength of my view is the way it handles Kripke-style cases without an error theory. I see Kripke claiming that we don't imagine what we think we imagine; Kripke asserts that what I'm *really* imagining is scientists making a shocking announcement that the clear, colorless, ..., liquid — *not* water — is XYZ, even though I take myself to be imagining something surprising about *water*. I agree with Hill (1997) that this explanation "...is fundamentally misguided; ...in non-pathological circumstances introspection gives us pretty accurate access to the contents of our own states of imagination" (p. 83n10).

¹⁷ See Fiocco (2007), Tidman (1994), and van Inwagen (1998) for arguments against conceivability as evidence for possibility.

much like nonsensory imagining, that is, pure assignment. A thorough examination of conceiving will have to wait for another occasion.

So far I have said a lot about when imagining is not evidence for possibility. Can imagining ever be evidence for possibility? Let's examine that next.

2.3. Authentication

Let's start with a perception example. You're fortunate to have Super Bowl tickets this year. You're not a millionaire so your seats are far from the field. It's the halftime show, and you see the performer remove his shirt mid-song, but you're too far away to visually discern who the performer is. Your visual experience alone does not justify you in believing that Justin Timberlake has just removed his shirt. However, if you have independent, non-visual evidence that the performer is Justin — if your friend points at the stage and tells you, "That's Justin Timberlake" — then you are justified in believing that Justin has just removed his shirt.

Something similar is at work with imagination. To imagine that Justin is singing at the Super Bowl you have to imagine that it is *Justin* doing the singing. The fact that Justin exists in your imagined scenario is not pictured; it is assigned. (To appeal to the more technical discussion from the end of section 2.1 for a moment, you picture some object, some o . That o is labeled $\langle \text{Justin Timberlake} \rangle$. What is assigned is $(\exists x)[\text{IsJustinTimberlake}(x)]$.) Hence by my lights the imagining does not, by itself, provide evidence that Justin Timberlake could exist. However this does not disqualify any imagining featuring Justin from providing evidence for possibility. Imagining situations featuring Justin can be evidence for possibility *only if* you possess independent evidence that it is possible for Justin to exist. Possessing independent evidence that Justin could exist is like in the perceptual case possessing independent evidence that Justin is on stage. If you have independent evidence that Justin could exist, then you can use him as a character in your imaginings, and still have those imaginings provide evidence for possibility.

We'll call this business of providing independent evidence for assignments *authentication*.

Recall the simple idea from the opening of this section. Imagination is a faculty that combines and rearranges the things discover in the actual world in new ways. It allows us to literally picture these new combinations, and that is how it provides us with evidence that the new combinations are possible.

We can't picture everything in new combination. Often what isn't pictured is the identity of a thing: what the thing *is*. When we use imagination to combine and rearrange things, assignment establishes what the things are. I argued that assignments provide no evidence for possibility. So while imagination provides evidence that certain combinations and rearrangements are possible, it provides no evidence that particular kinds of things could exist. We need to rest on independent evidence that there could be those particular kinds of things.

Ordinarily this isn't an issue. I imagine Justin Timberlake in a situation he's never been in — riding on Barack Obama's shoulders, exploring the Mariana Trench. I have to assign the Justin identity to one figure in my imagining, so my imagining provides no evidence that Justin could exist. But we ordinarily take ourselves to possess independent evidence that Justin could exist. We know it is possible for Justin to exist because we know that he *actually* exists. Or at least that is the sort of thing we take ourselves to know. More on that in the next section.

Though I think these assumptions about modal epistemology are plausible and defensible, I realize that they are not uncontroversial. For further explanation and defense, see the papers cited in note 15. Nonetheless I hope the reader finds the general idea — that some modal claims are more difficult to justify than others, and that some imaginability-possibility claims rest on independent evidence for possibility — plausible. It explains why I can justify claims about what could happen to Justin Timberlake in part by pointing to the actual Justin Timberlake. I cannot justify modal claims about Sherlock Holmes the same way, and that is why some philosophers, like Kripke, think that there could not be a Sherlock Holmes.¹⁸

¹⁸ A reader who accepts my claims about when an imagining is *not* evidence for possibility may now question whether imagining is *ever* evidence for possibility. Although I try to answer that question in Kung (forthcoming), in the present context it is important to realize that modal skepticism would *hinder* rather

With these constraints on modal epistemology in hand, we are ready to return to skeptical scenarios. We can now answer the: when we entertain a skeptical scenario, are we justified in believing that the scenario is possible?

3. Are Skeptical Scenarios Metaphysically Possible?

No, we have no reason to believe that the most extreme skeptical scenarios are possible. Take Descartes' demon deceiver from the end of the First Meditation. There is no doubt that Descartes presents an extremely vivid skeptical thought experiment, and I admit we can imagine being deceived by the demon.¹⁹

Though we conjure various visual imagery when we imagine being deceived by the demon, the crucial part of the scenario, the part that does the skeptical heavy lifting, is all assigned. That there is an all-powerful demon (or that the visualized red, horned satyr is an all-powerful demon) is assigned. That my present experiences are caused by this demon is also assigned. That there are no material objects at all is assigned.

Thus we are justified in believing the demon skeptical scenario is possible only if we can *authenticate* these assignments as we did with the assignment about Justin Timberlake above. To do that we need independent evidence that the assignments are possible. In the example above, though in imagining Justin Timberlake performing at halftime, the identity of Justin was assigned, we authenticated the assignment with independent evidence that Justin Timberlake could exist. Our independent evidence was that he actually exists. Can we authenticate the assignments in the demon scenario? Obviously we cannot appeal to the fact that the assignments are actual. Further, the prospects for imagining a situation in which there is an all-powerful demon where it is not merely *assigned* that some figure is the all-powerful demon seem quite dim. Hence I do not see how we can be justified in believing that there could be an all-powerful demon. Given the metaphysical possibility requirement, a demon deceiver scenario fails to generate legitimate skeptical doubts.

than *help* the skeptic. We are assuming the possibility requirement in this paper. If modal skepticism holds, then no skeptical scenario meets the requirement.

¹⁹ Descartes himself wasn't such a fan of imagination. But that is beside the point here. Many people who read his *Meditations* find the situation he describes easy to imagine, and take that to be evidence that the situation is possible.

It is worth noting that this makes the demon deceiver scenario quite different from the skeptical considerations that precede it in the First Meditation. The preceding scenarios — mistaking a square column for round, dreaming, and so on — explicitly rest on actual world premises. We should be concerned about the skeptical implications of the dreaming scenario, for example, because we *have had* vivid dreams in the past. If the demon deceiver scenario is an attempt to devise a skeptical argument that rests on no actual world premises — a “bare possibility” argument — then it fails.²⁰ Some Descartes commentators would welcome this result: there are textual puzzles about the role the demon deceiver scenario is supposed to play.²¹

What about a scenario like the situation depicted in the movie *The Matrix*? Are we justified in believing that all our life experiences could be one long Matrix-induced hallucination? Because *The Matrix*'s world is rich with detail, it would take a fair amount of work to break down and tease apart which elements of the movie we are justified in believing are possible and which we are not. But we can make some headway without an exhaustive analysis. The elements of the movie, as well as the elements of any simpler BIV case, are material objects — computers, human beings, brains — and these objects have important features that make the movie compelling: conscious experience is caused by electrochemical activity in the brain; this activity can be artificially simulated by a sophisticated computer, and so on. These are facts in *The Matrix*, and they are established by assignment. The movie would be a lot less compelling if it did not rest on these assignments. Imagine a *Matrix* movie where Neo wakes up to find that he is a *teacup* programmed to have experiences by the Matrix. (How would you even depict it in a movie?) This *Matrix* doesn't exploit our knowledge of the connection between the brain and conscious experience, so not only is it less compelling, it is also much less clear that this imagined scenario is possible.²² To be justified in believing that these imagined facts

²⁰ That term “bare possibility argument” is from Wachbrit (1996).

²¹ On what Wachbrit (1996) calls the traditional interpretation, the First Meditation progresses from skeptical arguments with actual world premises — which may be self-refuting — to skeptical arguments that rest on nothing but “bare possibilities.” Wachbrit argues that the demon deceiver scenario is therapeutic rather than epistemic: its purpose is to counteract our the “irksome” psychological habit to believe what our senses tell us.

²² Thanks to Yuval Avnur for illuminating discussion on this point.

are possible we have to authenticate each assignment by appealing to independent evidence for its possibility.

Some of these imagined facts — that there are human beings, that there are computers, that humans have brains, electrochemical organs that are responsible for conscious experience — can be authenticated by appeal to actuality. We are justified in thinking that these things could exist or could be true because they *do* exist or they *are* true. We do not have to go through the exercise of trying to imagine many of *The Matrix's* facts non-stipulatively because we can rest assured that many assigned facts are also actual facts.

At least, we *think* they are actual facts. We take ourselves to be justified in believing, even knowing, that there are human beings, that there are computers, that human beings have brains. If we are not justified in believing that these things are actually true, then we have no way to authenticate the assignments in our Matrix and BIV thought experiments, and we are not justified in believing that the Matrix and BIV scenarios are possible. Hence our justification for believing that Matrix and BIV scenarios are possible is hostage to our justified perceptual beliefs about the external world.

It is very hard to see how one could construct a compelling skeptical scenario that is sweeping enough to call *all* our external world beliefs into doubt without adding ingredients from the external world.²³ The skeptical scenario's intuitive force seems to derive from the way the scenario employs ordinary facts in an exaggerated deception. If the skeptic cannot justify using these ordinary facts in her skeptical scenario, then not much remains.

If successful, this line of reasoning would blunt any *global* skeptical challenge based on skeptical thought experiments. But it would say nothing about more *local* skeptical challenges. Suppose we grant that sciences generates justified beliefs; it might be that science itself generates genuine skeptical possibilities that we need to rule out.²⁴ Even

²³ See Klein (2008) for the distinction between ordinary incredulity, where the doubt can in principle be removed by ordinary empirical methods, and philosophical doubt, which is so sweeping as to be impossible to remove.

²⁴ Thanks to Peter Thielke on this point. For interesting discussion of skeptical challenges based on "real, live scientific-philosophical hypotheses," see Frances (2005).

so, we would have made some progress by eliminating the more paralyzing global skeptical challenges. However before the anti-skeptic declares victory, there is one objection we need to consider.

4. A Paradox?

The skeptic might object: I grant that Matrix and BIV scenarios are hostage to justified perceptual beliefs about the external world. That shows the nonskeptic faces a paradox.

- i. If you have justification for believing some facts about the external world, then you will be justified in believing that a skeptical scenario is possible.
- ii. If you are justified in believing the skeptical scenario is possible, then that raises legitimate doubts for any *O* about the external world and undermines your justification for believing *O*.
- iii. Thus, if you have justified beliefs about the external world, then you lose that justification. The skeptical conclusion holds.²⁵

This seems like a worrisome objection. Let's call the real world possibility @ and the skeptical hypothesis SH. The skeptic contends that if SH is a genuine possibility then your experience *E* really is consistent with both @ and SH, meaning you need some way to break the tie in favor of @. That seems to require ruling SH out, and it is hard to see how a subject can do that without begging the question. The anti-skeptic is hoisted on her own petard.

I deny premise ii). If you are in this position described in i), you do have a way to break the tie in favor of @. Here is an argument for a conditional that contradicts ii) above.

1. You are justified in believing that the Matrix hypothesis is possible. (supposition)
2. 1) requires being justified in believing that there are (or were) brains, computers, and so on.
3. To be justified in believing that there are (or were) brains, computers, and so on, perceptual experiences like *E* must confer justification.

²⁵ Thanks to Stephen J. White (UCLA) and Yuval Avnur for pressing this objection.

4. For perceptual experiences like E to confer justification requires that ties between @ and the Matrix hypothesis are broken in favor of @. In other words E favors @ over the Matrix hypothesis.
5. You are still justified in accepting @ over the Matrix hypothesis.

Thus on the supposition that 1) is true, 5) follows; this contradicts premise ii) of the above objection. Even supposing you are justified in believing that certain skeptical scenarios are possible, it follows that you are justified in believing that possibility does not obtain, because you have an argument that E favors @ over H.

5. The Power of Skeptical Thought Experiments

Let me draw the various lines of argument in this paper together to make some general observations about the power of skeptical thought experiments to drive skeptical arguments. Because we assume in this paper that we must be justified in believing a skeptical scenario to be metaphysically possible for the scenario to raise legitimate skeptical doubt, the question becomes: what sorts of skeptical scenarios are we justified in believing to be metaphysically possible?²⁶

Let's begin with the two ends of the spectrum. First, we will almost never be justified in believing that skeptical scenarios that deal in *abstracta* are metaphysically possible (on the basis of imagination²⁷). Take the skeptical scenario that, though my arithmetical intuitions tell me that $2+3=5$, in fact $2+3\neq 5$; my arithmetical intuitions systematically mislead me.²⁸ Does this scenario cast doubt on whether $2+3=5$? Notice that to imagine the scenario we have to assign that $2+3\neq 5$, hence imagination provides no evidence that the scenario is metaphysically possible. The scenario raises legitimate doubt only if we have some alternative source of justification for believing that possibly $2+3\neq 5$; the prospects for that seem dim. Most challenges to our *a priori* knowledge face similar prospects. Merely imagining via assignment a scenario in which morality permits

²⁶ Thanks to a referee for *European Journal of Philosophy* for pressing me to add this section.

²⁷ This is an important caveat, but I'll omit it henceforth.

²⁸ See Beebe (forthcoming, §IV)

torturing puppies for fun does nothing to diminish our justification for believing that torturing puppies for fun is morally wrong.²⁹

Second, at the other end of the spectrum, we will almost always be justified in believing that skeptical scenarios that concern only the traditional primary and secondary qualities, and no other properties, because no assignment is necessary to imagine such a scenario. However very few if any skeptical scenarios concern only primary and secondary qualities.

Third and more interestingly, skeptical scenarios that involve particulars or non-qualitative kinds will generally require justification for believing that the particulars or non-qualitative kinds exist. The reason is that we imagine the identities of particulars and non-qualitative kinds via assignment. We need assignment to make the imagined figure singing at the Super Bowl *Justin Timberlake* rather than someone who (or something that) merely resembles Justin, or to make an imagined brown rectangular object a piece of *wood* rather than something that merely resembles wood. As we saw in section 2.3, imagining something happening to Justin Timberlake provide evidence that such a thing could happen to Justin only if we can *authenticate* the assignment that Justin exists. It is hard to see how we can do that without pointing to the actual Justin Timberlake. Similarly we'd need to authenticate our assignment that wood exists, and it's hard to see how we can do that without pointing to actual samples of wood.³⁰

It's this general principle that renders the demon deceiver and Matrix skeptical scenarios impotent. Those scenarios involve particulars or non-qualitative kinds — demons, brains, computers — yet the skeptical aim of the scenario supposedly prevents authentication by appeal to actuality. Unless we have some alternative way of justifying the possible existence of demons, brains, and computers (and hence the claim that demons and brains could give rise to conscious experience), a way that *doesn't* rest on

²⁹ This is not a particularly surprising result in light of our starting assumption that skeptical scenarios must be metaphysically possible.

³⁰ There may be some particulars or non-qualitative kinds that we can authenticate with a second imagining, rather than by appeal to actuality. That would involve imagining the *origin* of the particular or non-qualitative kind in question. See Kung (forthcoming, §6.5) for discussion.

actual world justification, those global skeptical scenarios will remain unable to raise legitimate doubt.

Fourth, if we do have justification for believing that a particular or a non-qualitative kind actually exists, then imagining scenarios involving that particular or non-qualitative kind will generally generate evidence that such a scenario is possible. If we are justified in believing that zebra cages exist, mules exist, and paint exists, then we can authenticate the relevant assignments when we imagine that the creature in the zebra cage is a painted mule. Similarly if we are justified in believing that tables exist, that red lights exist, and that white things look red under red lights, then we can authenticate all the relevant assignments when we imagine that a red-looking table is in fact white illuminated by red light.³¹ As I noted above, imagination allows us to literally picture new combinations of elements, generating evidence that such new combinations are possible, *provided* that we possess some reason for thinking those elements are themselves possible. Hence this paper leaves more modest skeptical thought experiments, thought experiments that allow that we have *some* perceptual justification, intact.

There is one complication that deserves special attention. Most if not all skeptical thought experiments essentially include *causal* connections. The demon causes your misleading experiences, the red lights cause the white table to appear red. Are we justified in believing that for any imagined sequence of events, A followed by B, that A could cause B? That turns out to be a rather vexed question; the answer depends in part on one's view of causation. If a causal link between A and B requires a law connecting A and B, and laws are relations between universals,³² then our first point from this section applies. Universals are abstract, and the relation between universals is also abstract; we would not be justified in believing that imagined lawful connection between A and B were genuine possibilities. However if one is a regularity theorist, then perhaps merely imagining an A-B sequence would be enough to justify belief that A could cause B. These matters deserve separate investigation.³³

³¹ Both cases are due to Dretske (1970, pp. 1015–16).

³² See Dretske (1977).

³³ According to my view, the answer will also depend on Hume's question of whether causal connections are part of the qualitative content of experience. For a recent discussion see Siegel (2008).

6. Concluding Thoughts

This paper has investigated whether we are justified in believing that skeptical scenarios are metaphysically possible. Given our assumption from the first section that skeptical scenarios must be metaphysically possible to generate legitimate doubt, I argued that there is an unappreciated connection between modal justification and actual justification that undermines the skeptic's more sweeping aims. The skeptic trying to employ compelling skeptical scenarios to skeptical effect is in the unhappy position of having to rest the very thing she is trying to argue we do not have.

A final note on sources of modal evidence. Though in this paper I concentrated exclusively on imagining as our source of evidence for metaphysical possibility, I believe analogous considerations hold for other putative sources of modal evidence. Here are two examples. First, some philosophers take intuition to be our principal source of modal evidence.³⁴ I suggest that, like imaginings, some intuitions of metaphysical possibility rest on beliefs about the external world. Perhaps it is intuitive that I could be a BIV being fed these very experiences; even if it is, we surely do not find it intuitive that it is metaphysically possible for me to be a *teacup* being fed these very experiences.³⁵ A reasonable explanation of this difference is that we know something about the brain's role in producing perceptual experiences and something about what simple objects teacups are. If that explanation is on the right track, then intuitions of metaphysical possibility, like imaginings, will exhibit the same dependence on justified beliefs about the external world. Second, consider non-sensory imagining and non-imaginative conceiving. Do they provide evidence for metaphysical possibility? Given my claims above about the modal evidential inertness of imaginative assignment, any proponent of non-sensory imagining or non-imaginative conceiving as a guide to possibility will have to explain how conceiving or non-sensorily-imagining that P differs from imagining that P via assignment. I believe this is a difficult challenge to meet.³⁶

³⁴ Bealer has defended this view in a series of papers. See his (2002).

³⁵ Or, at the very least, the intuition that I could be a teacup having these very experiences is much weaker.

³⁶ I have enjoyed fruitful and extensive discussion with Yuval Avnir, Peter J. Graham, and Masahiro Yamada. Thanks also to Peter Thielke. I am grateful to members of the 2007 Southern California

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