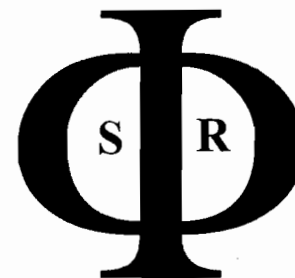


**SOUTHWEST  
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REVIEW**



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## SOUTHWEST PHILOSOPHY REVIEW

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## THE EQUIVOCAL OR QUESTION-BEGGING NATURE OF EVIL DEMON ARGUMENTS FOR EXTERNAL WORLD SKEPTICISM

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*External world skepticism* [EWS] is a local form of skepticism that denies that we have perceptual knowledge of the physical world around us. According to EWS, we do not *know* that any physical object—be it a table, a chair, a piece of paper, or even our own body—exists. To convince us of the truth of EWS, skeptics typically appeal to skeptical hypotheses such that were they true, our perceptual experiences would be phenomenologically identical to our current perceptual experiences and yet all our perceptual beliefs would be false. Descartes’s famous evil demon hypothesis is one such hypothesis. According to the demon hypothesis, a powerful demon is systematically deceiving me into thinking that there is an external world populated with tables, chairs, paper, bodies, etc. by providing me with perfectly coherent, yet entirely non-veridical sensations. The skeptic then argues that the mere *possibility* of demon-induced deception precludes knowledge of the external world as follows:

1. It is possible that you are being deceived by an evil demon.
2. If it is possible that you are being deceived by an evil demon, then it is possible that there is no philosophy paper in front of you.
3. If it is possible that there is no philosophy paper in front of you, then you do not know that there is a philosophy paper in front of you.
- ∴ 4. You do not know that there is a philosophy paper in front of you.

In what follows, I argue that the above demon argument either equivocates with respect to “possibility” or begs the question against the nonskeptic and, thus, fails to provide any grounds for EWS.<sup>1</sup> To set the stage for my argument, I begin with a brief preliminary section on epistemic possibility.

### 1. Preliminaries

#### a. Epistemic Possibility: Three Cases

Consider the following case.

Philosopher Bob

Ordinary Joe and Philosopher Bob are sitting along the lakeshore in Chicago discussing Jim Java’s whereabouts.

Joe: I haven’t seen Jim Java in a few days. Perhaps, he is in New Orleans.  
He told me he was going to take a trip there soon, just so he could

drink chicory coffee in the French Quarter.

Bob: It's not possible that Jim is in New Orleans. I just saw him at the Bump and Grind Coffeehouse twenty minutes ago.

When Bob says, "It's not possible that Jim is in New Orleans," he intends to assert something true. But being a philosopher, Bob knows that it's metaphysically possible [ $\mu$ -possible] that Jim is in New Orleans.<sup>2</sup> After all, he knows that there are  $\mu$ -possible worlds where highly efficient underground transportation pods can transport people from Chicago to New Orleans in ten minutes and these pods leave every ninety seconds from the basement of the Bump and Grind, and he knows that in some of these worlds, Jim routinely pods over to New Orleans. In light of such worlds, it is clearly  $\mu$ -possible that Jim is in New Orleans, and Bob knows that it is. Of course, Bob also knows that the actual world doesn't contain any such high-speed transportation pods nor any other transportation systems capable of transporting Jim from Chicago to New Orleans in under twenty minutes. He also knows that, in the actual world, it takes twenty minutes to get a cab in Chicago, another thirty minutes to get to O'Hare Airport, and over an hour to get through security. Given what Bob knows, Jim simply *couldn't* be in New Orleans. Bob's background knowledge entails that Jim is not in New Orleans, and Bob recognizes that entailment. Given Bob's knowledge, it is not epistemically possible [e-possible] for Jim to be in New Orleans. That is why Bob asserts what he does. Bob is making a true epistemic modal claim, not a false metaphysical one.

Philosopher Bob illustrates that competent speakers often sincerely assert, of contingent propositions, that they are impossible. Such claims are false if interpreted metaphysically, but they are often perfectly understandable and true if they are being used to express epistemic modalities. Competent speakers also routinely assert, of  $\mu$ -necessarily true propositions, that they *might* be false, and they assert, of  $\mu$ -necessarily false propositions, that they *might* be true. For a case in point, let us turn to God.

God

The proposition *God exists* [ $G$ ] is either  $\mu$ -necessarily true or  $m$ -necessarily false. Now consider Agnes the agnostic. Agnes is a reflective agnostic who has considered all of the arguments for and against God's existence and found them wanting. In addition, Agnes is a competent speaker of English. When asked whether  $G$  is true, Agnes sincerely asserts both: " $G$  *might* be true," and " $G$  *might* be false." In making these two assertions, Agnes has either asserted of a  $\mu$ -necessarily false proposition that it *might* be true, or she has asserted of a  $m$ -necessarily true proposition that it *might* be false, depending on the truth value of  $G$ . Unless we are prepared

to maintain that competent speakers like Agnes, despite their sincerity, routinely make false modal assertions, we must look for an alternative, non-metaphysical interpretation of their claims. What we need is an account of *possibility* that will allow us to accommodate and make sense of ordinary linguistic practice. *Epistemic possibility* allows us to do just that.<sup>3</sup> On an epistemic reading, when Agnes asserts " $G$  might be true," she is simply asserting that, for all she knows, God exists.

Finally, consider Saul Kripke's famous example.

Goldbach's Conjecture

Goldbach's Conjecture [GC] is the mathematical conjecture that every even number greater than 2 is the sum of two primes. Despite the fact no counter-instance to GC has ever been found, no one has ever proven that GC is true. Being a mathematical proposition, GC has its truth-value  $\mu$ -necessarily. So, *if* GC is true (as is widely believed), then it is *m-necessarily* true; and yet, since it has never been proven, it seems true to say that it *might* be false. Such is the nature of conjectures. They might be false. How *might* a  $\mu$ -necessarily true proposition be false? In what sense, is it *possible* for a  $\mu$ -necessarily true proposition to be false? Kripke's answer is, "in the epistemic sense." As Kripke rightly notes, the 'might' and the 'possible' are being used in an epistemic sense to express our current ignorance of the truth value of GC.<sup>4,5</sup>

#### b. A Stipulative Account of E-Possibility<sup>6</sup>

In "All Kinds of Possibility," Ian Hacking observes that certain "occurrences of *possible* can be modified by many adverbs of the form  $\phi$ -ly: technically, economically, theoretically, medically, metaphysically, humanly."<sup>7</sup> He then provides the following formula for understanding *de re*  $\phi$ -possibility ascriptions: *It is  $\phi$ -ly possible for A to x if there is nothing of a  $\phi$ -al sort that absolutely prevents A from x-ing.*<sup>8</sup> Hacking's suggestion where *de re* possibility is concerned can be distilled down to the following basic idea: *A's x-ing is  $\phi$ -ly possible just in case A's x-ing is not  $\phi$ -ly precluded.* Of course, *de dicto* possibility is likewise subject to adverbial modification. Building on Hacking's suggestion, we can understand *de dicto*  $f$ -possibility ascriptions using the following  $f$ -possibility schema:

$\Diamond_{\phi} p$   $p$  is  $\phi$ -ly possible for  $S$  iff nothing of a  $\phi$ -al sort  $\phi$ -ly precludes the truth of  $p$ .

According to this schema,  $p$  is logically possible for  $S$  iff nothing of a logical sort *logically precludes* the truth of  $p$ ; and  $p$  is physically possible iff nothing of a physical sort *physically precludes* that  $p$ . Similarly,  $p$  is epistemically possible for  $S$  iff nothing of an epistemic sort *epistemically precludes* the

truth of  $p$ . This suggests that epistemic preclusion holds the key to understanding epistemic possibility. In the interest of understanding the latter, let us turn our attention to the former.

### c. Epistemic Preclusion

The most obvious way for  $p$  to be epistemically precluded for  $S$  is for  $S$  to know that  $\sim p$ . Let's call this "direct e-preclusion" and define it as follows:

$D_1$   $p$  is *directly e-precluded* for  $S$  at  $t$  iff  $S$  knows that  $\sim p$  at  $t$ .

That there is another way for something  $S$  knows to e-preclude  $p$  for  $S$  can be seen by considering the following case.

Miss Vincent

I am sitting in the living room watching TV. Miss Vincent, one of my cats, is sitting on my lap flicking me with her tail and purring loudly. I know that Miss Vincent is in the living room, but I do not know that she is not in the bedroom, because I haven't considered the proposition that *Miss Vincent is not in the bedroom*, much less bothered to form the belief that she's not there. Still, my knowledge that she is in the living room, together with my background knowledge, self-evidently entails that she is not in the bedroom, i.e. this entailment is one I would immediately recognize, were I to consider it. Simply put, my knowledge that Miss Vincent is in the living room indirectly e-precludes her being in the bedroom. We can define *indirect e-preclusion* as follows:

$D_2$   $p$  is *indirectly e-precluded* for  $S$  at  $t$  iff (i)  $S$  does not know that  $\sim p$  at  $t$ , but (ii)  $S$  could come to know that  $\sim p$  at  $t$ , strictly on the basis of propositions  $S$  knows at  $t$ .<sup>9</sup>

With these definitions in hand, we can now define *e-possibility* as follows:

$D_3$   $p$  is e-possible for  $S$  iff  $p$  is neither directly nor indirectly e-precluded for  $S$ .

Or equivalently:

$D_3'$   $p$  is e-possible for  $S$  at  $t$  iff (i)  $S$  does not know that  $\sim p$  at  $t$ , and (ii)  $S$  could not come to know that  $\sim p$  at  $t$ , strictly on the basis of propositions  $S$  knows at  $t$ .<sup>10</sup>

$D_3'$  yields the right results for every case we have considered so far. As for Philosopher Bob,  $D_3'$  correctly entails that it's *not* e-possible for Bob that *Joe is in New Orleans*, because Bob knows that (i) Joe was at the Bump and Grind Coffeehouse in Chicago twenty minutes earlier and he also knows that (ii) in the actual world it takes more than twenty minutes to get from Chicago to New Orleans; and Bob recognizes that (i) and (ii) entail that Joe is not in New Orleans. As for Agnes, since she believes neither  $G$  nor  $\sim G$ , she does not know that  $G$  and she does not know that  $\sim G$ . Moreover, nothing Agnes

knows self-evidently entails that  $G$  and nothing she knows self-evidently entails that  $\sim G$ . Furthermore, if any of the propositions Agnes knows do provide an adequate justificatory basis for either believing  $G$  or believing  $\sim G$ , Agnes is unable to grasp that justification. Hence,  $D_3'$  rightly entails that both  $G$  and  $\sim G$  are e-possible for her. That is why she asserts what she does. Turning to Goldbach's Conjecture, I do not know that GC is true, and nothing I currently know self-evidently entails that GC is true [Neither I nor any expert mathematician has been able to see how to derive GC.]. So,  $D_3'$  yields the right result, namely, that  $\sim GC$  is e-possible for me and *ipso facto* that it is e-possible for me that GC is false. Finally,  $D_3'$  also get things right regarding Miss Vincent's possible whereabouts. I know that Miss Vincent is in the living room, because I see and feel her sitting on my lap in the living room. I do not know that *Miss Vincent is not in the bedroom*, because I haven't considered that proposition. However, some of the propositions I know—(a) that *Miss Vincent is in the living room*, and (b) that *the living room and the bedroom are distinct rooms in my palatial estate*—entail that *Miss Vincent is not in the bedroom*, and I am quite capable of grasping that entailment. So, it is *not* e-possible for me that *Miss Vincent is in the bedroom*, because, even though I don't know that she's not in the bedroom, some of the things I do know at the time, viz. (a) and (b), *obviously* entail that she's not there. Simply put, my knowledge that Miss Vincent is in the living room, along with my other background knowledge, indirectly e-precludes her being in the bedroom: *Given what I know*, she simply *couldn't* be there.

## 2. The "Possibility" of Evil Demons

One of the most obvious problems with the demon argument presented above is that it does not specify the kind of possibility being employed in premises (1)-(3). Let us, therefore, call that argument the Unqualified Demon Argument [or UDA, for short]. Because UDA doesn't identify the kind of possibility being employed in its premises, UDA is multiply ambiguous. In order to help us assess the various readings of UDA, let's symbolize it as follows:

- |     |   |
|-----|---|
| UDA | 1. $\Diamond d$                             |
|     | 2. $\Diamond d \rightarrow \Diamond \sim p$ |
|     | 3. $\Diamond \sim p \rightarrow \sim Kp$    |
|     | $\therefore$ 4. $\sim Kp$ <sup>11</sup>     |

On one interpretation of UDA, the skeptic is using metaphysical possibility throughout the argument. Call this interpretation the metaphysical argument [MA]:

- MA
1.  $\Diamond_{\mu} d$
  2.  $\Diamond_{\mu} d \rightarrow \Diamond_{\mu} \sim p$
  3.  $\Diamond_{\mu} \sim p \rightarrow \sim Kp$
- $\therefore$  4.  $\sim Kp$ <sup>12</sup>

MA is valid, but it is not sound. Premise 3 is false. We cannot, generally speaking, derive epistemic conclusions from purely metaphysical premisses.<sup>13</sup> And we certainly cannot derive *S*'s ignorance of *p* from the mere  $\mu$ -possibility of  $\sim p$ , for, as Philosopher Bob clearly illustrates, the  $\mu$ -possibility of  $\sim p$  does not imply that *S* does not know that *p*. The  $\mu$ -possibility that Jim Java is in New Orleans does not imply that Philosopher Bob does not know that Jim is not in New Orleans. Bob does know that Jim is not in New Orleans, even though he also knows that it is  $\mu$ -possible that Jim is there.<sup>14</sup>

Perhaps the skeptic intends to employ  $\mu$ -possibility in some statements and e-possibility in others. Two such mixed readings readily come to mind. Consider mixed argument 1 [XA<sub>1</sub>]:

- XA<sub>1</sub>
1.  $\Diamond_{\mu} d$
  2.  $\Diamond_{\mu} d \rightarrow \Diamond_e \sim p$
  3.  $\Diamond_e \sim p \rightarrow \sim Kp$
- $\therefore$  4.  $\sim Kp$

If XA<sub>1</sub> is what the skeptic intends, then she is guilty of equivocation. Once we recognize that premise (1) and the antecedent of premise (2) employ different senses of "possibility," it's obvious that XA<sub>1</sub> is invalid. Perhaps, the skeptic isn't equivocating, but rather has in mind mixed argument 2 [XA<sub>2</sub>]:

- XA<sub>2</sub>
1.  $\Diamond_{\mu} d$
  2.  $\Diamond_{\mu} d \rightarrow \Diamond_e \sim p$
  3.  $\Diamond_e \sim p \rightarrow \sim Kp$
- $\therefore$  4.  $\sim Kp$ <sup>15</sup>

The XA<sub>2</sub> reading of UDA is valid, but now premise (2) is dubious. How do we get from  $\Diamond_{\mu} d$  to  $\Diamond_e \sim p$ ? Presumably, we need the following intermediate premisses

- 2.1  $\Diamond_{\mu} d \rightarrow \Diamond_e d$
- 2.2  $\Diamond_e d \rightarrow \Diamond_e \sim p$

But why accept 2.1? After all, the following general principle is false:  $(p)(\Diamond_{\mu} p \rightarrow \Diamond_e p)$ . As Philosopher Bob shows, the  $\mu$ -possibility of *p* does not entail the e-possibility of *p*. While it's clearly  $\mu$ -possible that Jim is in New Orleans [There are  $\mu$ -possible worlds with the requisite transportation technology, and in some of them, Jim has used that technology to get to New

Orleans rapidly.], it is not e-possible for Bob that Jim is there, *given what Bob knows* [Bob knows that Jim was in Chicago twenty minutes ago and that in the actual world it takes more than twenty minutes to get from Chicago to New Orleans.]. If you still have doubts about the falsity of the above general principle, consider another case. There are many  $\mu$ -possible worlds (e.g. worlds where my parents never met) in which I don't exist, and so, it is  $\mu$ -possible that I don't exist. However, the  $\mu$ -possibility of my nonexistence does not entail the e-possibility for me of my nonexistence. After all, since I know that I exist, it is not e-possible for me that I don't exist.

Perhaps the skeptic intends to employ e-possibility throughout UDA and, thus, has in mind the epistemic argument [EA]:

- EA
1.  $\Diamond_e d$
  2.  $\Diamond_e d \rightarrow \Diamond_e \sim p$
  3.  $\Diamond_e \sim p \rightarrow \sim Kp$
- $\therefore$  4.  $\sim Kp$

### 3. Exploring the Epistemic Possibility of Evil Demons

Unlike the previous interpretations of UDA, EA presents us with a genuine skeptical paradox, for it looks valid and its premisses seem to be true, but its conclusion strikes us as absurd. The truth of premise (3) can be demonstrated as follows: Per D<sub>3</sub>' the following condition is a necessary condition for e-possibility: *p* is e-possible for *S* only if *S* does not know that  $\sim p$ .<sup>16</sup> The condition can be stated formally as follows:  $(p)(\Diamond_e p \rightarrow \sim K\sim p)$ .<sup>17</sup> Since premise (3) is an instance of this general truth, premise (3) is clearly true. Premise (2) is also clearly true. The e-possibility of your being deceived by an evil demon *does imply* the e-possibility of there being no philosophy paper in front of you. After all, if nothing you know e-precludes your currently being deceived by an evil demon, then nothing you know e-precludes there currently being no philosophy paper in front of you. Given the truth of EA (2) and (3) and assuming that EA is valid, it follows that if EA (1) is true, then you don't know that there is a philosophy paper in front of you. And, at least on the face of it, EA (1) clearly looks true—it certainly seems that it is e-possible that you are being deceived by an evil demon. Of course, it also seems clear that you know that there is a philosophy paper in front of you. After all, you have a reliably-produced, perceptually-justified, safe and sensitive, true belief that there is a philosophy paper in front of you, and there is no Gettier funny-business going on. EA, thus, leaves us with the following paradox: The demon hypothesis is e-possible, and yet we know things incompatible with its e-possibility. Something's amiss alright, but

what? In what follows, I will resolve the paradox in a way that allows us to retain our philosophical intuition that the demon hypothesis is e-possible, while also allowing us to retain our commonsense intuition that we do have knowledge of the external world around us.

#### 4. Two Kinds of E-Possibility

The key to resolving the above paradox is recognizing that, even in EA, there lies a subtle ambiguity with respect to e-possibility. To tease out that ambiguity, we need to realize that our intuitive e-possibility assessments are split along the same infallibilistic/fallibilistic lines as our ordinary epistemic evaluations.<sup>18</sup> We usually relativize our e-possibility assignments to the propositions we *fallibly* know [know<sub>f</sub>], but on some occasions, we make our e-possibility assignments relative to the propositions we *infallibly* know [know<sub>i</sub>]. What distinguishes knowledge<sub>i</sub> and knowledge<sub>f</sub> is the kind of justification each requires. Knowledge<sub>i</sub> that *p* requires *infallible* justification for *p* (i.e. justification that entails *p*), whereas knowledge<sub>f</sub> that *p* only requires *fallible* justification for *p* (i.e. justification that makes *p* probable, but need not entail *p*).<sup>19</sup> In order to avoid conflating our fallibilistic e-possibility assessments with our infallibilistic e-possibility assessments, we must, therefore, further refine D<sub>3</sub> 2 as follows:

- D<sub>3</sub>'<sub>f</sub>      *p* is e-possible<sub>f</sub> for *S* at *t* iff (i) *S* does not know<sub>f</sub> that  $\sim p$  at *t*, and (ii) *S* could not come to know<sub>f</sub> that  $\sim p$  at *t*, strictly on the basis of propositions *S* knows<sub>f</sub> at *t*.
- D<sub>3</sub>'<sub>i</sub>      *p* is e-possible<sub>i</sub> for *S* at *t* iff (i) *S* does not know<sub>i</sub> that  $\sim p$  at *t*, and (ii) *S* could not come to know<sub>i</sub> that  $\sim p$  at *t*, strictly on the basis of propositions *S* knows<sub>i</sub> at *t*.<sup>20</sup>

Once we recognize the distinction between fallibilistic and infallibilistic e-possibility, EA itself turns out to be multiply ambiguous between a purely infallibilistic reading [EA<sub>i</sub>], two mixed readings [EAX<sub>1</sub> and EAX<sub>2</sub>], and a purely fallibilistic reading [EA<sub>f</sub>]:

- |                  |  |                  |  |
|------------------|--|------------------|--|
| EA <sub>i</sub>  | 1. $\diamond_{ei}d$<br>2. $\diamond_{ei}d \rightarrow \diamond_{ei}\sim p$<br>3. $\diamond_{ei}\sim p \rightarrow \sim K_i p$<br>∴ 4. $\sim K_i p$ <sup>21</sup> | EAX <sub>1</sub> | 1. $\diamond_{ei}d$<br>2. $\diamond_{ef}d \rightarrow \diamond_{ef}\sim p$<br>3. $\diamond_{ef}\sim p \rightarrow \sim K_f p$<br>∴ 4. $\sim K_f p$ <sup>22</sup> |
| EAX <sub>2</sub> | 1. $\diamond_{ei}d$<br>2. $\diamond_{ei}d \rightarrow \diamond_{ef}\sim p$<br>3. $\diamond_{ef}\sim p \rightarrow \sim K_f p$<br>∴ 4. $\sim K_f p$               | EA <sub>f</sub>  | 1. $\diamond_{ef}d$<br>2. $\diamond_{ef}d \rightarrow \diamond_{ef}\sim p$<br>3. $\diamond_{ef}\sim p \rightarrow \sim K_f p$<br>∴ 4. $\sim K_f p$               |

Both mixed readings are unsound. EAX<sub>1</sub> (1) is not the antecedent of

EAX<sub>1</sub> (2), and so, EAX<sub>1</sub> is simply invalid. As for EAX<sub>2</sub>, its second premise is false. The fact that none of the propositions you know<sub>i</sub> e-precludes that *you are being deceived by an evil demon* [*d*] does not entail that none of the propositions you know<sub>f</sub> e-precludes that *there is no philosophy paper in front of you* [ $\sim p$ ]. Why not? Because you might know<sub>f</sub> that *p*, without knowing<sub>i</sub> that  $\sim d$  and without knowing<sub>i</sub> anything that self-evidently entails that  $\sim d$ . In such a situation, your knowing<sub>f</sub> that *p* would directly e-preclude that  $\sim p$  and, thus, would entail that  $\sim p$  is *not* e-possible<sub>f</sub> for you (i.e. it would entail  $\sim \diamond_{ef}\sim p$ ); whereas your failing to know<sub>i</sub> that  $\sim d$  or any  $\sim d$ -entailing propositions would entail that *d* is e-possible<sub>i</sub> for you (i.e. it would entail  $\diamond_{ei}d$ ), because nothing you know<sub>i</sub> would e-preclude *d*. In such a case, the antecedent of EAX<sub>2</sub> (2) would be true, but its consequent would be false. Since EAX<sub>2</sub> (2) can have a true antecedent and a false consequent, EAX<sub>2</sub> (2) is false. Consequently, the e-possibility<sub>i</sub> of the evil demon provides no ground for the e-possibility<sub>f</sub> of there being no philosophy paper in front of you.<sup>23</sup>

As for EA<sub>i</sub>, while it is clearly sound, it isn't of much philosophical interest. First to its soundness. EA<sub>i</sub> is clearly valid by repeated instances of modus ponens, and its second and third premises are true for reasons analogous *mutatis mutandis* to those offered when discussing premises (2) and (3) of EA above. That only leaves EA<sub>i</sub> (1) to consider. It is generally acknowledged that we have very little in the way of knowledge<sub>i</sub>, for our evidence rarely entails that for which it is evidence. We may know<sub>i</sub> a few *cogito* propositions, but not much else. Given the little, if anything, that we know<sub>i</sub>, very few propositions, if any, are *infallibilistically e-precluded* [e-precluded<sub>i</sub>] for us.<sup>24</sup> If, e.g., you have no knowledge<sub>i</sub> at all, then no propositions are e-precluded<sub>i</sub> for you, and so every proposition is e-possible<sub>i</sub> for you. If, on the other hand, you do possess *cogito* knowledge<sub>i</sub> of your own existence, then that knowledge<sub>i</sub> e-precludes<sub>i</sub> your own nonexistence for you. But your *cogito* knowledge<sub>i</sub> does not e-preclude<sub>i</sub> the existence of an evil demon, because you cannot justifiably<sub>i</sub> infer the nonexistence of such a demon from the few *cogito* propositions you know<sub>i</sub>. Since the existence of an evil demon is not e-precluded<sub>i</sub> for you, the existence of an evil demon is e-possible<sub>i</sub> for you, just as EA<sub>i</sub> (1) asserts.<sup>25</sup> Hence, EA<sub>i</sub> is sound. You don't know<sub>i</sub> that there is a philosophy paper in front of you.

The reason EA<sub>i</sub> is of little philosophical interest is because you don't need to contemplate the e-possibility<sub>i</sub> of far-fetched demon hypotheses to realize that you lack knowledge<sub>i</sub> that there is a philosophy paper before you. Presumably, your current visual and tactile experiences are what justify you in believing that there is a philosophy paper in front of you, and it's obvious

that those experiences *do not entail* that there is a philosophy paper before you, for you can have phenomenologically indistinguishable experiences as a result of dreams, holograms, virtual reality machines, and countless other perceptual illusions, when no paper is there. Therefore, you are not justified<sub>i</sub> in believing that there is a philosophy paper before you. Since you lack justification<sub>i</sub> for believing that there is a philosophy paper in front of you, and since justification<sub>i</sub> is necessary for knowledge<sub>e</sub>, it follows that you lack knowledge<sub>e</sub> that there is a philosophy paper in front of you. One needn't appeal to EAI to establish such a conclusion.

The only interesting version of EA is EAF, for it's the only version that threatens to undermine our ordinary fallibilistic knowledge of the objects around us. Like EAI, EAF is clearly valid by repeated instances of modus ponens and its second and third premises are true, again for reasons analogous *mutatis mutandis* to those offered in support of EA's premises (2) and (3). The problem with EAF is that the skeptic is in no position to assert that its first premise is true, for suppose that you know<sub>f</sub> that there is a philosophy paper before you [*p*], that you have a body [*b*], and that you are currently sitting on a chair [*c*]. Then you know<sub>f</sub> propositions—viz. *p*, *b*, and *c*—that entail that you are not being deceived by a demon into falsely believing that *p*, that *b*, and that *c*.<sup>26</sup> We might make the point as follows. Because EAF is valid, so is the following argument:

- 2.  $\Diamond_{ef}d \rightarrow \Diamond_{ef}\sim p$
- 3.  $\Diamond_{ef}\sim p \rightarrow \sim K_f p$
- ~4.  $K_f p$  (i.e.  $\sim \sim K_f p$ )
- $\therefore$  ~1.  $\sim \Diamond_{ef}d$

The above argument demonstrates that the falsity of EAF (4) entails the falsity of EAF (1).<sup>27</sup> And since you can easily grasp this self-evident entailment, your knowing<sub>f</sub> that *p*, that *b*, and that *c* would fallibilistically e-preclude [e-preclude<sub>f</sub>] for you the existence of an evil demon who is deceiving you and would thus render the demon hypothesis e-impossible<sub>f</sub> for you.<sup>28</sup> So, the skeptic can only rationally assert EAF (1)—that it is e-possible<sub>f</sub> for you that you are being deceived by an evil demon—if she assumes the truth of EAF (4). Since the skeptic cannot rationally assert EAF (1) without assuming that we lack knowledge<sub>f</sub> of the external world, she cannot assert premise (1) without assuming the very thing in question. Granted, if the skeptic could give an independent reason for thinking EAF (1) true—a reason that did not make reference to the truth of EAF (4), then EAF would not beg the question; but she can't because e-possibility<sub>f</sub> is analyzed in terms of knowledge<sub>f</sub>. Consequently, EAF essentially begs the question: To be rationally entitled to assert EAF (1), the skeptic must first be rationally

entitled to assert that  $\sim K_f p$ . Perhaps the skeptic can provide some other argument for  $\sim K_f p$ , which she can then use to establish  $\sim K_f p$  and thereby establish EAF (1). But then, it is this other argument—not EAF—that is doing all the skeptical work. Any argument A1 such that one must first establish the conclusion of A1 via some second argument A2 before one is rationally entitled to assert the premises of A1 is itself worthless in establishing the conclusion of A1. EAF is such an argument. In order for the skeptic to rationally assert EAF (1), she must first prove the truth of EAF's conclusion with a different argument, thereby rendering EAF superfluous.<sup>29</sup>

### 5. Undermining EA and Resolving the Paradox

An adequate solution to the skeptical puzzle generated by the demon argument must not only explain where UDA goes wrong, it must also explain why UDA initially has such strong intuitive appeal. My solution does both. UDA goes wrong, because it is either unsound (due to a false premise, as in MA, XA<sub>2</sub>, and EAX<sub>2</sub>), or uninteresting and irrelevant to ordinary *fallible* knowledge (as in EAI), or invalid (due to equivocation, as in XA<sub>1</sub> and EAX<sub>1</sub>), or question-begging (as in EAF). As a result, UDA fails to provide any reason for thinking that we lack knowledge<sub>f</sub> of the external world. Why then are so many people caught in UDA's skeptical grip, when they first encounter the argument? The answer is simple: Either (i) having initially been drawn in by the m-possibility of the demon hypothesis, they conflate m-possibility with e-possibility, thereby illegitimately drawing an epistemic conclusion from purely metaphysical premises, or (ii) they recognize that the argument must be couched in terms of e-possibility, but they fail to notice the subtle equivocation between fallibilistic and infallibilistic senses of e-possibility identified in EAX<sub>1</sub>. Given the subtlety of each mistake, it is perfectly understandable that one find UDA initially threatening, indeed.

This way of undermining the skeptical problem posed by UDA also allows us to resolve the paradox generated by EA. The reason we are inclined to think that the evil demon hypothesis *is* e-possible even though we *know* things incompatible with its e-possibility is because in making our demon e-possibility assessment we are making an e-possibility<sub>i</sub> assessment, whereas in claiming to know that we are in a room filled with people, we're making a knowledge<sub>f</sub> claim. Since we have very little, if any, *infallible* knowledge, nothing we *infallibly* know e-precludes<sub>i</sub> the truth of the demon hypothesis, and so, the demon hypothesis is e-possible<sub>i</sub> for us. That explains why we initially find premise (1) of EA so compelling. The epistemological mistake that has been repeated for centuries and that most people make when

first confronted with the e-possibility<sub>i</sub> of the evil demon is concluding, on that basis, that we have no knowledge<sub>f</sub> of the world around us, but that is just to fall prey to the equivocation identified by EAX<sub>1</sub>. The e-possibility<sub>i</sub> of the evil demon does prevent us from having knowledge<sub>i</sub> of the existence of the external world, as EA<sub>i</sub> shows. That's as it should be. But the demon argument is impotent when it comes to knowledge<sub>p</sub>, because there is no nonquestion-begging way to establish the e-possibility<sub>f</sub> of the demon hypothesis.

## 6. Conclusion

Epistemic possibility plays an important role in ordinary discourse. It allows us to accommodate and make sense of many, if not most, of the modal ascriptions we encounter in our day-to-day lives. Once we realize that in ordinary discourse assertions of the form "It is possible that *p*" are typically relativized to what the speaker knows, it is easy to understand why competent sincere speakers would make those assertions. People often assert the "impossibility" of contingent propositions. They do so when, like Philosopher Bob, they know that these propositions are false. They assert what they do because, *given what they know*, these propositions *couldn't* be true. People also routinely assert the "possibility" of m-impossible propositions. They do so when nothing they know e-precludes the truth of the proposition in question.

Epistemic possibility plays an even more important role in philosophical discourse. If we wish to avoid mistakes in our philosophical reasoning, in our epistemological theorizing, and in our modal argumentation, we must be vigilant not to conflate e-possibility ascriptions with m-possibility ascriptions. We must be equally vigilant not to conflate e-possibility<sub>i</sub> attributions with e-possibility<sub>f</sub> attributions. Once we attend to these different kinds of possibility, we can see that the e-possibility<sub>i</sub> of a deceptive evil demon does nothing to undermine our knowledge<sub>f</sub> of the external world. It is the failure to attend to these different kinds of possibility that leads us to be deceived by deception arguments for skepticism.<sup>30</sup>

## Notes

<sup>1</sup> As a point of historical accuracy, Descartes advanced the demon argument to call into question not only to our knowledge of the external world, but also our knowledge of mathematics and logic. My sole goal here is to demonstrate that the demon argument for EWS either equivocates or begs the question and thus fails to provide grounds for EWS. It remains to be seen whether the demon argument for mathematical and logical skepticism is open to the same objections.

<sup>2</sup> For present purposes, let us stipulatively define  $\mu$ -possibility and  $\mu$ -impossi-

bility as follows: A proposition *p* is  $\mu$ -possible iff there is a  $\mu$ -possible world where *p* is true. A proposition is  $\mu$ -impossible iff there are no  $\mu$ -possible worlds where *p* is true.

<sup>3</sup> See David Lewis's "Score Keeping in a Language Game," *Journal of Philosophical Logic* 8 (1979): 339-359 for a discussion of several rules of accommodation in force in ordinary conversational contexts. There, Lewis points out that successful conversations generally require listeners to accommodate competent speakers by interpreting them in such a way that their sincere assertions turn out true, and he then identifies the following scheme for rules of accommodation for conversational score:

If at time *t* something is said that requires component  $s_n$  of conversational score to have a value in the range of *r* if what is said is to be true, or otherwise acceptable; and if  $s_n$  does not have a value in the range *r* just before *t*; and if such-and-such further conditions hold; then at *t* the score-component  $s_n$  takes some value in the range of *r*. (Lewis 1979, 347)

As we shall see, in many conversational contexts, when some person *S* sincerely asserts "It is possible that *p*," in order for *S*'s assertion to be true, the possibility operator must be understood as an *epistemic possibility* operator.

<sup>4</sup> Saul Kripke, *Naming and Necessity* (Cambridge, MA: Harvard University Press, 1980): 36-38.

<sup>5</sup> Keith Lehrer makes a similar point concerning a man who believes a necessary truth without proof of its truth:

We might wish to say of the man that he could have been mistaken even though it was logically impossible that he should have been mistaken. What is the force of this *could* which defies logical possibility? In what sense could he have been mistaken? The answer is—he could have been mistaken in the sense that, for all he knows, what he believes is false. This, in turn, means that what he knows does not establish that what he believes is true. [Keith Lehrer, "Why Not Scepticism?" *The Philosophical Forum* 2 (1971). Reprinted in *Essays on Knowledge and Justification*, eds. Pappas and Swain (Ithaca, NY and London: Cornell University Press, 1978): 350.]

<sup>6</sup> I defend the account of epistemic possibility advanced in this section at length in my "What Is Epistemic Possibility?" (in manuscript). Space considerations prevent me from defending the account in any detail here, so I offer it by stipulation and refer you to the aforementioned article for its defense.

<sup>7</sup> Ian Hacking, "All Kinds of Possibility," *Philosophical Review* 84 (July 1975): 325.

<sup>8</sup> *Ibid.* As stated, Hacking's *analysans* is only offered as a sufficient condition of the  $\phi$ -possibility of *A*'s *x*-ing, but as far as I can tell, it is also a necessary condition of such possibility, and that is how I will understand Hacking's suggestion. Lloyd Reinhardt, following Hacking, makes a somewhat similar suggestion. See his "Metaphysical Possibility," *Mind* 87 (April 1978): 217.

<sup>9</sup> Obviously, condition (ii) needs unpacking. Here is what is intended by condition (ii):

D<sub>4</sub> *S* could come to know that  $\sim p$  at *t*, strictly on the basis of the propositions *S*



knows at  $t$ , iff either (1) one or more of the propositions  $S$  knows at  $t$  self-evidently entail that  $\sim p$  for  $S$  (such that it is within  $S$ 's cognitive capacity at  $t$  to grasp that entailment immediately at  $t$ ); or (2)  $\sim p$  is true, one or more of the propositions  $S$  knows at  $t$  provide an adequate justificatory basis for believing that  $\sim p$ , and it is within  $S$ 's cognitive capacity at  $t$  to see that these propositions justify her in believing that  $\sim p$ .

<sup>10</sup>  $D_3'$  can be stated more explicitly as follows:

$D_3''$   $p$  is e-possible for  $S$  at  $t$  iff (i)  $S$  does not know that  $\sim p$  at  $t$ ; (ii) if one or more of the propositions  $S$  knows at  $t$  entail that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to grasp that entailment; and (iii) if  $\sim p$  is true and if one or more of the propositions  $S$  knows at  $t$  provide an adequate justificatory basis for believing that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to see that these propositions justify her in believing that  $\sim p$ .

<sup>11</sup> Where:

$\Diamond$  = It is possible that...

$K$  = You know that...

$d$  = You are being deceived by an evil demon.

$p$  = There is a piece of paper before you.

<sup>12</sup> Where:  $\Diamond_m$  = It is metaphysically possible that...

<sup>13</sup> To think otherwise is the epistemic equivalent of the naturalistic fallacy.

<sup>14</sup> I am not begging the question against the skeptic here. I am simply making a conceptual point that from the mere fact that Bob knows that it is  $\mu$ -possible that Jim is in New Orleans, it does not follow that Bob does not know that Jim is not in New Orleans, for as we have seen before, Bob might know that the  $\mu$ -possibility in question is not actual.

<sup>15</sup> Where:  $\Diamond_e$  = It is epistemically possible that...

<sup>16</sup>  $D_3'$  is not unique in insisting that  $p$  is e-possible for  $S$  only if  $S$  does not know that  $\sim p$ . Every purported account of e-possibility in the literature that I'm aware of takes  $S$ 's not knowing that  $\sim p$  to be a necessary condition for  $p$ 's being e-possible for  $S$ .

<sup>17</sup> Keith DeRose defends a similar principle in his "Epistemic Possibilities," *Philosophical Review* 100 (October 1991): 596-601.

<sup>18</sup> Infallibilistic intuitions clearly underlie Kripke's *a priori* Cartesian certainty account according to which  $p$  is e-possible for  $S$  provided  $S$  lacks *a priori* Cartesian certainty that  $\sim p$ . See his *Naming and Necessity*, 143, n. 72, where he proposes the following:  $p$  is e-possible for  $S$  iff  $S$ 's evidence does not justify *a priori* Cartesian certainty that  $\sim p$ .

<sup>19</sup> The distinction between knowledge<sub>i</sub> and knowledge<sub>f</sub> can be spelled out more fully as follows: As noted in the text, knowledge<sub>i</sub> requires justification<sub>i</sub>, where  $S$  is justified<sub>i</sub> in believing that  $p$  only if  $p$ . Thus, knowledge<sub>i</sub> can be analyzed as follows:

$(K_i) \quad K_i p \equiv (p \ \& \ Bp \ \& \ J_i p).$

Fallibilism, on the other hand, is the view that  $S$  can know<sub>f</sub> that  $p$  on the basis of nonconclusive reasons for  $p$ . Thus, according to fallibilism, the kind of justification

required to convert true belief to knowledge<sub>f</sub> need only make probable, but needn't entail, that for which it is justification. As a result, fallibilism entails the following possibility:  $\Diamond(J_p \ \& \ \sim p)$ . This possibility and the closure principle with respect to justification together entail numerous Gettier-possibilities, including:

$\Diamond[Bp \ \& \ J_p \ \& \ J_f(p \rightarrow q) \ \& \ B(p \ \& \ q) \ \& \ J_f q \ \& \ Bq \ \& \ q \ \& \ \sim p \ \& \ \sim K_f q]$

The latter possibility obtains when, as Edmund Gettier illustrated,  $S$  has a justified<sub>f</sub> true belief that  $q$  which falls short of knowledge<sub>f</sub> because  $S$ 's justification<sub>f</sub> for  $q$  [to wit,  $Bp \ \& \ J_p \ \& \ J_f(p \ \& \ q) \ \& \ B(p \ \& \ q)$ ] fails to be appropriately connected to  $q$ 's truth and thus is defective (Edmund Gettier, "Is Justified True Belief Knowledge?" *Analysis* 23 [1963]: 121-123.). Since fallibilism entails these possibilities, a fourth condition must be added to the traditional analysis of knowledge to rule out Gettier cases as instances of knowledge. For present purposes, the following condition will suffice:  $S$  is not Gettierized with respect to  $p$  [ $\sim Gp$ ]. Accordingly, we can analyze knowledge<sub>f</sub> as follows:

$(K_f) \quad K_f p \equiv (p \ \dots \ Bp \ \dots \ J_p \ \dots \ \sim Gp).$

<sup>20</sup> Definition  $D_3''$  (presented in endnote 10) should also be revised accordingly:

$D_3''_f$   $p$  is e-possible<sub>f</sub> for  $S$  at  $t$  iff (i)  $S$  does not know<sub>f</sub> that  $\sim p$  at  $t$ ; (ii) if one or more of the propositions  $S$  knows<sub>f</sub> at  $t$  entail that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to grasp that entailment; and (iii) if  $\sim p$  is true and if one or more of the propositions  $S$  knows<sub>f</sub> at  $t$  provide an adequate justificatory<sub>f</sub> basis for believing that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to see that these propositions justify<sub>f</sub> her in believing that  $\sim p$ .

$D_3''_i$   $p$  is e-possible<sub>i</sub> for  $S$  at  $t$  iff (i)  $S$  does not know<sub>i</sub> that  $\sim p$  at  $t$ ; (ii) if one or more of the propositions  $S$  knows<sub>i</sub> at  $t$  entail that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to grasp that entailment; and (iii) if  $\sim p$  is true and if one or more of the propositions  $S$  knows<sub>i</sub> at  $t$  provide an adequate justificatory<sub>i</sub> basis for believing that  $\sim p$ , then it is not within  $S$ 's cognitive capacity at  $t$  to see that these propositions justify<sub>i</sub> her in believing that  $\sim p$ .

<sup>21</sup> Where:

$\Diamond_{ei}$  = It is e-possible<sub>i</sub> that...

$K_i$  = You infallibly know that...

<sup>22</sup> Where:

$\Diamond_{ef}$  = It is e-possible<sub>f</sub> that...

$K_f$  = You fallibly know that...

<sup>23</sup> I have just attacked the connection between  $EAX_2$  (2)'s antecedent and its consequent, but some might object that that alone is not sufficient to demonstrate its falsity, on the grounds that  $EAX_2$  (2) is merely a material implication and thus is true whenever its antecedent is false and is also true whenever its consequent is true. So, let's consider these possibilities, as well. First, if  $EAX_2$  (2) is true in virtue of having a false antecedent, then premise (1) of  $EAX_2$  is *ipso facto* false, and so,  $EAX_2$  is unsound. Such a result would be of little solace to the skeptic. Second, I have already demonstrated in the text that there is no logical connection between  $EAX_2$  (2)'s antecedent and its consequent, i.e. I have already shown that it is

possible for its antecedent to be true and its consequent to be false. Nevertheless, it might turn out that  $EAX_2(2)$ 's consequent is just coincidentally true. In such a case,  $EAX_2(2)$  would be true, but not because of the e-possibility<sub>i</sub> of the evil demon. Of course, if the skeptic wishes maintain that  $EAX_2(2)$  is true solely on the grounds that its consequent just happens to be true independent of its relationship to the antecedent, then the demon argument itself becomes otiose, for the e-possibility<sub>i</sub> of demonic deception is doing no work. In that case, the skeptic would owe us an independent argument in support of  $\diamond_{ef}\sim p$ , an argument which she has not presented. I submit that this way of trying to defend  $EAX_2(2)$  is uncharitable to the skeptic, since it renders the argument that she actually offers worthless.

<sup>24</sup> Where:  $p$  is infallibilistically e-precluded [e-precluded<sub>i</sub>] for  $S$  at  $t$  just in case either (i)  $S$  knows<sub>i</sub> that  $\sim p$  at  $t$  or (ii)  $S$  could come to know<sub>i</sub> that  $\sim p$  at  $t$ , strictly on the basis of the propositions  $S$  knows<sub>i</sub> at  $t$ .

<sup>25</sup> It is precisely such reasoning that inclines us to accept premise (1) of the original ambiguous argument EA.

<sup>26</sup> Because if you know<sub>f</sub> that  $p$ , that  $b$ , and that  $c$ , then  $p$ ,  $b$ , and  $c$  are true, and so you are not falsely believing them.

<sup>27</sup> Given, as we have shown, that  $EAF(2)$  and (3) are true.

<sup>28</sup> Where:  $p$  is fallibilistically e-precluded [e-precluded<sub>f</sub>] for  $S$  at  $t$  just in case either (i)  $S$  knows<sub>f</sub> that  $\sim p$  at  $t$  or (ii)  $S$  could come to know<sub>f</sub> that  $\sim p$  at  $t$ , strictly on the basis of the propositions  $S$  knows<sub>f</sub> at  $t$ .

<sup>29</sup> Peter Klein makes a similar point with respect to skeptical arguments predicated on the closure principle. He claims that such arguments "virtually beg the question" because one of the premises in closure-based skeptical arguments can only be supported by a subargument that employs the conclusion of the main skeptical argument as a premise. See his "Skepticism and Closure: Why the Evil Genius Argument Fails," *Philosophical Topics* 23 (1995): 213-36. While Klein properly diagnoses one way skeptical arguments can go wrong, he does not explain the source of their intuitive appeal, nor does he acknowledge the role equivocation plays in motivating skepticism.

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