In spite of an evolving contemporary debate over the concept of “epistemic possibility,” nearly every philosopher assumes that the concept is equivalent to a mere absence of epistemic impossibility, that a proposition is epistemically possible as long as it is not inconsistent with some relevant body of knowledge. I suggest that we challenge this deeply entrenched assumption. I assemble an array of data that singles out the distinctive meaning and function of the attitude of taking propositions as epistemically possible, and suggest that this data is best explained by a positive evidentialist conception of epistemic possibility. On this conception, a proposition is epistemically possible to a subject only if the subject has cognitive access to evidence that specifically supports that proposition. I suggest that this view not only offers a superior explanation of the data, but also offers a unique and straightforward strategy for undermining skeptical arguments.

1 Introduction

It is often tempting to accuse contemporary epistemologists of devoting an extraordinary amount of energy to the analysis of concepts which bear little relevance to the thought and action of laypeople. But it may be that philosophers analyze too little rather than not enough. Ordinary people use epistemic concepts every day to ask questions, answer them, and plan for the future on that basis. Philosophers’ analysis may be insufficient if their efforts fail to account for the utility of everyday epistemic practice. In this paper I contend that for many decades at least, philosophers have failed to notice a critical blind spot in their assumptions about a key epistemic concept, and this has had dramatic consequences both for the theoretical integrity of their discipline and for the practical value of the field.

The key concept is the epistemologist’s concept of “possibility.” To say that something is possible, from an epistemic perspective, is to evaluate a claim by reference to what we know, to say that the claim is possibly true. This is distinct from other kinds of modality. Assessments of epistemic possibility have both practical and theoretical import. Practically, they are involved directly in the way we ask and answer questions. Theoretically, they are of interest to the philosopher because we do not claim to know something unless we rule out the possibility that it is mistaken. This in turn has further practical implications because assessments of what we know guide how we plan our lives in accordance with our thinking.

What do philosophers conventionally say it means for a claim to be epistemically possible? In an early exploration of the issue, G.E. Moore identifies the kind of possibility which rules out a knowledge claim as any proposition that is “not logically incompatible with anything you know immediately” (Moore 1959: 224-25). More recently, philosophers have sought to distinguish epistemic possibility from whatever is not merely logically contradictory. Michael Huemer’s definition is representative of the trend:¹ “p is epistemically possible for S = It is not the case that p is epistemically impossible for S”
(2007, 129). Egan and Weatherson give an even simpler statement of the view, which clearly highlights an assumption all of them share: “A possibility is an epistemic possibility if for every p such that p is true in that possibility, we do not know that p is false” (2011, 1). While there are many variations on this theme, most philosophers assume that epistemic possibility is defined in terms of some double-negated predicate. What’s epistemically possible is whatever is not negated by some relevant body of knowledge or evidence. Philosophers then debate about which body of knowledge or evidence that is and how accessible it needs to be. The conventional assumption among epistemologists here is what we might call, for lack of a better turn of phrase, a negative account of epistemic possibility:

\[(\text{NEP}) \text{ it is epistemically possible that p for } S \text{ if only if p is not logically incompatible with some relevant body of } S's \text{ knowledge or evidence.}\]

More interestingly, while philosophers generally recognize that epistemic possibility is distinct from logical possibility, they still seem to regard it as definable in terms of logical possibility. The property Moore picks out is what is “not logically incompatible” with what is known. Epistemic possibility, on this view, is really just what is logically possible in relation to one’s knowledge or evidence. Philosophers with this view see belief-formation as essentially a process of possibility-elimination, making it sensible to assume what David Chalmers makes explicit: “If a subject did not know anything, all scenarios would be epistemically possible for the subject” (2011, 61).

In this paper, I will offer reasons for rejecting this conventional negative account of epistemic possibility. I will make the admittedly controversial and philosophically revisionary proposal that instead epistemic possibility should be defined in terms of a positive property, without reduction to any form of logical possibility. More specifically, I will propose that for a claim to be genuinely epistemically possible requires that a subject have access to at least some specific evidence that p is true. On this model, epistemic possibilities are not defaults we must eliminate in order to form beliefs. We do sometimes form beliefs by eliminating possibilities, but not always, and even those that do need elimination are ones that need to be established in the first place, to be ruled in before they can be ruled out.

To defend this proposal, I will first present data about epistemic possibility that I think any view of the concept of epistemic possibility should account for or explain. I will then present my proposed account and show how it explains this data. Finally, I will comment on the infallibilist conception of knowledge that my account implies, and indicate why this account is uniquely well-suited to avoid the skeptical consequences that infallibilist accounts usually threaten.
2 Data for an account of epistemic possibility

I begin with a list of observations about how epistemic possibility is used by inquirers. I do not assume that a proper theory of a concept needs to sanction every existing use of that concept. It is possible to misuse a concept and common usage should not necessarily be taken as data. Later I will spell out some norms that should govern the proper use and definition of concepts. For now, however, I am simply assembling what I take to be relatively uncontroversial observations about epistemic possibility claims.

2.1 Epistemic possibility is distinct from other forms of possibility

It is now widely recognized that there are important differences among different types of possibility.

Epistemic possibility is, for example, not coextensive with (formal) logical possibility. There are propositions that are logically possible insofar as they are not formally self-contradictory but which we can still rule out as epistemic possibilities. Urging this distinction, G.E. Moore (1959, p. 224) points out that we may know for certain, for instance, that there is a white visual percept now, even though this proposition is not logically necessary.5

Further, epistemic possibility is not the same as the less permissive notion of metaphysical possibility. “Hesperus is not Phosphorus” was at one time epistemically possible, even though it is and was clearly metaphysically impossible owing to the fact that “Hesperus is Phosphorus” is a necessary identity.6 Interestingly, in a number of different views, it is possible to define metaphysical possibility without further reference to modal notions.7 We can say p is metaphysically possible if there is a possible world where p is true, among other interpretations.8 We don’t have to define it as the absence of a metaphysical impossibility.

Finally, epistemic possibility is distinct from nomological or causal possibility, or consistency with the laws of nature. Any nomologically impossible scientific theory that was once taken seriously might still have been epistemically possible. In pre-modern physics it was epistemically possible that the orbits of the planets were perfectly circular as opposed to elliptical, but it never was nomologically possible according to Newtonian mechanics. And just as metaphysical possibility admits of definition in positive terms, nomological possibility can as well.9

2.2 Epistemic possibility expresses attitudes toward propositions

When we ask questions such as “What is the cause of his rash?” or “Who killed Colonel Mustard?” or “Where are my keys?” we do not immediately know the answer, and there would be little point in asking the question if we did. What does occur to us is a list of epistemic possibilities.10
But epistemic possibilities do not occur to us as such, unless we are working at a very sophisticated intellectual level. If I wonder who killed Colonel Mustard, I could simply answer “Miss Scarlet or Mrs. Peacock or Professor Plum or Mr. Green.” More likely I would put it as “Maybe Miss Scarlet, or maybe Mrs. Peacock . . .” That we can regard these as possible answers without even voicing the modal language helps show that epistemic possibility, as a modal operator, is an expression of an attitude toward a proposition, not primarily a component of the content of a proposition. “Maybe” operates on “Miss Scarlet killed Colonel Mustard” just as “Definitely” and “Hopefully” do. Implicit in any such attitude is that it is some person’s attitude, so we cannot understand the epistemically possible except as indexed to some subject.

Propositional attitudes, whether expressed implicitly or explicitly, are judged according to different standards. Beliefs can be true or false, desires can be healthy or not, feelings can be apt or not, etc. Some attitudes are cognitive; others are not. Epistemic possibility, like belief or judgment, is a cognitive attitude toward a proposition. But epistemic possibility is still distinct from belief and judgment. To take something as epistemically possible is not necessarily to believe or judge that something is epistemically possible, where the possibility becomes part of the content of belief or judgment. One can have beliefs about propositional attitudes, but these are beliefs about different, higher-order propositions than what simple expressions of epistemic possibility are attitudes towards.

2.3 Epistemic possibilities are continuous with other epistemic modalities

Dougherty (unpublished) has noted that ordinary people often speak of possibilities in a non-binary fashion: drawing on linguistic data from Angelika Kratzer (1977, 1981), he notes that some claims are said to be “very possible” or “more possible than others.” This is taboo in modal logic, where a claim is either possible or not. Philosophers, of course, are more apt to speak of degrees of probability than they are degrees of possibility. But even if the graded usage of “possible” is dispensable in terms of grades of probability, the usage suggests that ordinary thinkers sense that epistemic possibility is sensitive to the same factor or factors to which degrees of probability are sensitive.

Dougherty goes on to note Kratzer’s discussion of an example of a detective who transitions from saying that “Jones might be the murderer” to “Jones must be the murderer” in the course of an investigation (also expressed as “There is a slight possibility that Jones was the murderer” and “There is a good possibility that Jones was the murderer,” etc.). Expressions of epistemic possibility, then, seem to exist on some continuum with other epistemic modals. This cries out for an explanation in terms of some commensurable characteristic actually possessed by these expressions.
2.4 Epistemic possibilities can be affirmed, denied, and questioned

We change our minds about what is epistemically possible, and we can agree or disagree with others’ assessment of what is epistemically possible. If lose my keys and think that maybe I left them in my old jeans, then when I check all of the pockets in my old jeans and don’t come up with keys, in ordinary situations I will no longer take it as possible that they are in my old jeans. A detective does not take it as possible that Scarlet killed Mustard if the detective decides that there was no way Scarlet could enter Mustard’s chamber. If the detective then discovers a secret entrance to Mustard’s chamber, they may take it that Scarlet may have killed him after all.

Just as we can change our mind and disagree with our own past assessments of what is epistemically possible, so we can disagree with those of other people. Consider the following exchange in the movie You’ve Got Mail:

JOE: He's probably married.
KATHLEEN: That's a terrible thing to say. It's not possible.
JOE: Have you asked him if he's married? Have you said, "Are you married?"
KATHLEEN: No.

Here Kathleen denies Joe’s stronger claim that something is probable by insisting that it is not even possible. Whether or not she is assessing things correctly, she certainly thinks one can be wrong to regard some state of affairs as possible—even though his marriage is logically, metaphysically, and nomologically possible.

It is worth noting that as long as we maintain that there are differences between epistemic and other forms of possibility, it is uncontroversial that epistemic possibilities can be challenged in this way. If I lose my keys at midnight in New Orleans, conventional views of epistemic possibility might allow that that only 19 hours later that we cannot deny it is epistemically possible that my keys are in New Delhi: after all, it is not impossible for someone to steal my keys and stash them in the luggage of the flight through Newark. These theorists will say that the New Delhi possibility is wildly improbable and not one to be seriously considered, but that it is possible nonetheless. Even so, they may still claim that it is not epistemically possible that my keys are in the Alpha Centauri system. Even if their presence in that star system is logically or metaphysically possible, because there is no known nomologically possible way to transport one’s keys that far this quickly, it is epistemically impossible in a way that the keys’ being in New Delhi is not.12

Of special interest are cases where we disagree with others’ assessments of what is epistemically possible. Suppose I think the maybe my keys are in my jeans. Anne in the other room overhears me as I search for the jeans. She is looking at my keys on the kitchen counter and she disagrees with me, and
thinks it’s not epistemically possible that the keys are in my jeans. After all, they’re on the counter. We shall see that there are special questions about such “eavesdropping” cases.

Rather than maintaining or denying possibilities, it seems that they can also be merely questioned. I can ask “Might my keys be in my jeans?” We shall also see that this seemingly ordinary question raises serious puzzles for conventional views about epistemic possibility.

2.5 Epistemic possibilities justify investigation

Although Michael Huemer (2007) adopts a version of the conventional NEP view that epistemic possibility is the absence of epistemic impossibility, he proposes the following criterion of adequacy for a proper account of the concept:

[A]n account of epistemic possibility . . . should illuminate the uses of epistemic possibility talk—it should be intelligible in terms of the account why, for example, it is appropriate for one who has recently lost his wallet to be concerned about the epistemically possible locations of the wallet, as opposed, say, to its logically or nomologically possible locations. The account should likewise put us in a position to understand why the judgment “The wallet might be in the car” results in a trip out to search the car, while the judgment “The wallet is definitely not at the movie theater” forestalls a similar trip to the theater. (2007, 121)

I agree with Huemer and would also suggest that we assess epistemic possibilities not only to justify the act of investigation but also an array of other mental acts. We regard as irrational or neurotic those who dwell on fantastic possibilities, who muse about unfounded suspicions. A full account of epistemic possibility should also explain the thoughts and feelings associated with rational investigation.

2.6 Concessive knowledge attributions sound contradictory

A series of philosophers have recently debated about statements of the following form:

S knows p, but it’s possible that not p.

These “concessive knowledge attributions” (CKAs) are sometimes put in terms of a proposition and the possibility that its direct contradictory is true, such as:

I know that Scarlett killed Mustard, but maybe Scarlett did not kill Mustard.

Sometimes the alternate possibility is a q that nonetheless entails not p:

I know that Scarlett killed Mustard, but maybe Plum killed Mustard.

Philosophers are widely agreed that such sentences sound contradictory, but they differ over the reason for this. Some say the appearance of contradiction arises from a real contradiction in the semantics of the sentence, while others say it arises from merely pragmatic factors. We will explore this dispute later.
3 The positive evidentialist criterion of epistemic possibility

I propose the following alternative to the conventional negative account of epistemic possibility, a positive evidentialist criterion for epistemic possibility which requires that epistemic possibilities be ruled in by at least minimal evidence before they can or should be ruled out:

(PEEP) it is epistemically possible that $p$ for S only if there is some evidence specifically supporting $p$ that is cognitively accessible to S

Note please that PEEP is framed using an “only if” and so only identifies one important necessary condition for proper epistemic possibility ascriptions. The main purpose of the current argument is merely to invalidate epistemic possibility claims that are not supported by positive evidence. Also, PEEP does not require that S knows that S has cognitive access to the specific supporting evidence, it only requires that one has this access.

Although most philosophers today reject this evidentialist account of epistemic possibility, it is not unheard of in the history of philosophy. In the last century, several prominent ordinary language philosophers embraced some version of a positive evidentialist theory. These figures include J.L. Austin (1946, p. 159) and most prominently and extensively, Norman Malcolm (1963, pp. 26-53). Malcolm explicitly describes one of the leading ordinary language criteria of epistemic possibility, which he explicitly distinguishes from logical and nomological possibility, as the following:

[T]here is a common use of the word “possible” and of the correlative words, according to which the statement ‘It is possible that so-and-so’ means ‘There is some reason to believe that so-and-so.’” (31)

Other philosophers go further and contend that “possibilities” raised without evidence lack fully cognitive meaning.

I will now clarify how this proposal explains the data about epistemic possibility better than conventional views about epistemic possibility.

3.1 How epistemic possibility differs from other forms of possibility

PEEP accounts for what is distinctive about epistemic possibility in a straightforward way. It does not model epistemic possibility as a kind of logical possibility in relation to one’s knowledge or evidence. It is not the absence of epistemic impossibility as in NEP. It is defined directly in terms of a positive property. It is not unheard of to understand other forms of possibility in this way. The positive property that grounds epistemic possibility is of course a distinctly epistemic property, support by evidence.

Propositions can be supported by evidence even when they are not metaphysically or nomologically possible. The fact that Hesperus is present in the sky at a different time than Phosphorus (in the evening rather than the morning) is pro tanto evidence that they are different planets in advance of
a more advanced astronomical theory. The fact that the paths of the planets are roughly circular (and that retrograde motion is initially difficult to discover) is pro tanto evidence that the paths of the planets are circular. (The suggestion here is far from the idea that there must be enough evidence to justify belief in a claim.)

Furthermore: propositions can lack evidential support even when they are logically, metaphysically, or nomologically possible. It may be logically, metaphysically, and nomologically possible for someone to steal my keys and send them on a flight to India, but unless I have specific evidence supporting this claim, if I have no evidence supporting this specifically, it will not count as epistemically possible. It is important to avoid equivocation between “it is possible for s to be φ” and “it is possible that s is φ.”17 For instance, it is nomologically possible for human beings to be murderers, and so nomologically possible for Anne to commit murder. But is it possible that Anne committed a particular murder, e.g. that she murdered Colonel Mustard, even if she lives in a different city, had no motive to kill him, and is not well-trained in the use of a revolver? I maintain that we cannot always (or usually) infer epistemic possibility from metaphysical possibility, as the claims are quite different.18 We should not confuse modal operators on propositions with narrower scope modal concepts in the content of a proposition. These two claims can mean very different things:

Maybe Anne killed Colonel Mustard.
Anne could have killed Colonel Mustard.

The first is an epistemic possibility that contrasts with saying that probably Anne killed Mustard. The second doesn’t admit of degrees in the same way: either Anne could have killed Mustard or she couldn’t have. Here the modality doesn’t modify a proposition, it modifies Anne. The second is the kind of modality utilized in counterfactuals: Anne did not kill Colonel Mustard, but she could have if she had wanted to. There is a difference in what s can do, and what might be true of s.19

The positive evidentialist account also helps explain why we learn epistemic modalities before we learn others. Papafragou (1998) has noted that children generally develop concepts of alethic modality associated with mere logical possibility much later than they develop concepts of epistemic modality.20 This is hard to make sense of if epistemic possibility is supposed to be, as NEP would have it, logical possibility as applied to what we know. Interestingly, it appears that young children develop an understanding of the operations of their own mind, including the rudiments of a folk epistemology (concerning perception as a basic source of evidence) around the same time as they begin to use epistemic modal operators with some understanding.21 As Papafragou notes, logical impossibilities and alethic modalities deal with relations among propositions abstracted from any particular cognitive agents, including from the state of their evidence and from their behavior in light of these propositions. Evidence
of this kind tentatively suggests that if anything, we model our understanding of logical possibility on our understanding of epistemic possibility, not the other way around.

3.2 The kind of propositional attitude expressed by epistemic possibility claims

The evidential support referred to in PEEP is not synonymous with justification. If a subject had evidence actually justifying \( p \), that subject would be entitled to believe \( p \), not just to take \( p \) as possible. Epistemic possibility is a cognitive propositional attitude, but it is distinct from the attitudes of believing and judging. Here the kind of evidence capable of supporting \( p \) exhausts the epistemologist’s usual categories: it may be evidence that arises from perceptual or introspective sources and that supports \( p \) deductively, inductively, abductively, etc. So, for instance, I do not need to have seen Scarlet kill Mustard to have specific evidence supporting the claim that she is guilty. I may, for example, merely hear a witness report that she was present near the scene of the crime at the time of the murder, and also know that she had a strong motive to eliminate her victim. And there is evidence of this nature that does not yet make it probable that someone is the probable killer.

Although conventional views of epistemic possibility do not necessarily disavow the idea that epistemic possibility is a kind of propositional attitude, they have less to say about what kind of attitude it is, how it compares to others, and whether or not it is governed by the same sorts of norms we expect other such attitudes to be governed by. PEEP, by contrast, answers these questions readily.

To treat \( p \) as an epistemic possibility is to think maybe \( p \); to fully believe \( p \) is simply to think \( p \). What is the attitude here that contrasts with full belief? There is a recognizable difference between serious and non-serious consideration of a proposition. No one would say that we should have evidence supporting \( p \) in order to imagine that \( p \) or to suppose \( p \) for the sake of argument. So to treat \( p \) as an epistemic possibility is to seriously consider \( p \), to treat it as an authentic candidate for belief, to treat it as possibly true. Since, by a number of accounts, the aim of belief is truth, it seems that which propositions we count as seriously considering should be judged by reference to the same aim as belief, i.e. truth, by considering evidence that they are potentially true. Basing epistemic possibilities on evidence is to evince a respect for the truth, as evidence is (more or less) facts that indicate the truth of some proposition. We can think of epistemic possibility as admissibility for cognitive purposes. If we attempted to admit and rule out every logical or metaphysical possibility, we could not function cognitively. Evidence is what helps constrain the number of admissions, and helps us to function as cognitive agents.

The role of the truth norm in epistemic possibility suggests that PEEP is, in effect, the extension of an evidentialist ethic which is taken to govern belief in a proposition to also govern the serious consideration of a proposition. Arguably, the evidentialist tradition has dealt with the issue of epistemic possibility from the beginning. John Locke famously describes his ethic of belief as primarily concerned
with governing assent correctly, of believing or disbelieving “according as Reason directs” (Locke 1690/1975, 688). Elsewhere in the Essay Locke explains how this doctrine applies when evidence does not conclusively sway us to believe:

The difficulty is, when testimonies contradict common experience, and the reports of history and witnesses clash with the ordinary course of nature, or with one another; there it is, where diligence, attention, and exactness are required, to form a right judgment, and to proportion the assent to the different evidence and probability of the thing: which rises and falls, according as those two foundations of credibility . . . favour or contradict it. . . . . . . . . [A]s the arguments and proofs pro and con, upon due examination, nicely weighing every particular circumstance, shall to any one appear, upon the whole matter, in a greater or less degree to preponderate on either side; so they are fitted to produce in the mind such different entertainments, as we call belief, conjecture, guess, doubt, wavering, distrust, disbelief, &c. (Locke 1690/1975, 663, my emphasis)

Notable here is Locke’s suggestion that the attitudes ranging from belief to wavering to disbelief form a continuum of degrees of assent, which degrees he suggests should be held in proportion “to the different evidence and probability of a thing.” If wavering is to consider a proposition as possibly true but possibly false, this amounts to an evidentialist treatment of epistemic possibility. Commenting on similar issues, David Hume summarizes the idea above with a pithy dictum “A wise man, therefore, proportions his belief to the evidence” (Hume 1748/1975, 110). Proportioning a belief, I take it, means modally qualifying one’s attitude toward a proposition, as possible, probable, or certain in a manner concomitant with increasing amounts of evidence.

NEP defines an epistemic possibility as the sheer absence of impossibility: \( p \) is possible just in case it is not ruled out by one’s knowledge or evidence. Does this criterion match the cognitive phenomenology associated with the propositional attitude? There are negative propositional attitudes: denial and disbelief are examples. But denial and disbelief have some phenomenological force to them. An attitude that would simply express the fact that some proposition is simply “not ruled out” is so neutral that it is hard to conceive of what the psychological or epistemological function of such an attitude would be.\(^2\) In section 3.5 we will explore how epistemic possibility ascriptions governed by PEEP explain and justify acts of inquiry and investigation.

3.3 Why epistemic possibility is continuous with other epistemic modalities

If epistemic possibility is a propositional attitude conditioned by positive awareness of evidence, we can make much better sense of how the attitude is continuous with other those expressed by other epistemic modal operators. Here, roughly, is how epistemic operators divide up the epistemic spectrum if we adopt the conventional NEP view vs. if we adopt the PEEP:
According to NEP, there is no reason to see epistemic “possibility” as on the same continuous spectrum as “probability.” “Probably p” may refer to an on-balance net positive amount of evidence, but “possibly p” only indicates the absence of disproof, which includes everything from a baseless proposition all the way up until the degree of maximum probability. Mostly notably, however, NEP leaves completely unconceptualized the entire lefthand portion of the lower spectrum. Yet surely there are propositions which have some evidence in their favor, but not enough to regard them as probably true, and it seems important to have some kind of epistemic attitude toward these that is better than sheer neutrality. NEP, by contrast, conceptualizes this portion of the spectrum only using the all-encompassing “possibility” that erases the distinction between less than and more than the preponderance of the evidence.

Advocates of NEP might say that we should be happy with two distinct spectrums. There’s what is possible vs. what is certain, and separately there are degrees of probability. But this still papers over the important difference between low evidential support and high evidential support. An epistemology that seeks to offer guidance to ordinary thinkers still needs to make the distinction between support by moderate evidence and support by a preponderance of the evidence. The difference between these may be a matter of degree, but vagueness is not a reason to abandon rough qualitative predicates: just as ordinary reasoners need predicates like “short” and “tall,” they also need “possible” and “probable.” As we shall see in section 3.5, part of the reason we need the concept of “possibility” is to justify acts of inquiry and investigation. It is not clear what epistemological purpose, if any, is served by another spectrum that merely divides the possible from the certain independently of the issue of evidential support. There are, of course, epistemological theories (such as various forms of naturalized and formal epistemology) that
abandon entirely the goal of offering normative guidance to subjects. We can have a lengthy discussion about what the alternative purpose of these epistemologies might be and whether it is worth pursuing. But even if there is such an alternative purpose, it is not clear why we should dispense with the purpose of offering guidance when we can do it—and when we need to do it.

3.4 How epistemic possibility claims are affirmed, denied, and questioned

Section 3.2 stressed that it is one’s sensitivity to the evidence that conditions the distinctive propositional attitude associated with epistemic possibility. A straightforward advantage of PEEP is that, in recognizing epistemic possibility as sensitive to evidence, it makes sense of ordinary denials of possibilities.

When Kathleen (see 2.4) denies the possibility that her correspondent is married, it seems reasonable not to suppose she is denying the logical, metaphysical, or nomological possibility of this state of affairs, since his being married clearly is not impossible in any of these ways. And there are many other cases in which ordinary speakers deny possibilities in this way.26

Yet if we understand epistemic possibility as NEP, it is hard to see many of these denials as rational. In some cases, it may be that the speaker denying the possibility has positive evidence against the claim the possibility of which she is denying. But there are many others where there is simply no evidence one way or the other. In these cases subjects will still deny possibilities. Find a police detective investigating a murder, pick a random name, and ask her if it is possible that the named person committed the crime. She will simply be perplexed by your question. She won’t say, “Well technically yes, it is possible, but not very probable.” She will think there is something wrong with your question. Perhaps the detective could be cajoled by a devious lawyer into accepting the possibility by enough questions that conflate epistemic with other forms of possibility, in the same way that philosophers have cajoled their students into accepting the same for years. But the detective and the students will accept it reluctantly.

PEEP affords a simple explanation for their reluctance: the randomly named person is not a possible killer, because no evidence supports the claim, and so it is rational to deny the possibility of the claim, i.e. rational not to take the attitude of possibility toward the proposition.27 NEP would maintain that the detective rather than the questioner is irrational in denying the possibility. Many people would count as irrational on such an interpretation, but it is not yet clear what rational purpose is served by a concept of “possibility” conceptualizing the epistemic spectrum in the way NEP does. I’ll say more about the rational purpose of PEEP’s conceptualization in section 3.5.

Thinking of epistemic possibility as an evidentially-sensitive propositional attitude that can be validly or invalidly expressed also affords us the opportunity to better understand interpersonal
disagreement about epistemic possibility. First let’s discuss the puzzle about eavesdropping discussed by philosophers. This arises when Anne overhears my saying:

(1) Maybe my keys are in my old jeans.

She is looking at my keys on the counter in another room, and wants to disagree with (1). At the same time, it seems that because epistemic possibility is indexed to my knowledge, there is a good sense in which Anne can concede that I was right to say what I said, given what I knew. So which is it? Does she agree or disagree with me?

I think there is no paradox here because we can distinguish among the various claims Anne regards as true and as false. If Anne says I’m wrong about (1), she might be disagreeing with the proposition I am considering, the content I am entertaining the possibility of. She’s saying that the following proposition is false:

(2) Ben’s keys are in his old jeans.

But she can acknowledge that even if (2) is false, there can be evidence supporting it in a different context, and so she can accept that I am right to entertain it as a possibility in (1). In doing so she is endorsing the following higher-order proposition as true:

(3) “Ben’s keys are in his old jeans is epistemically possible” is valid for Ben.

But in rejecting (2) she is rejecting a different higher-order proposition:

(4) “Ben’s keys are in his old jeans is epistemically possible” is valid for Anne.

The point is that what it is to agree or disagree with me about (1) is ambiguous, but we can disambiguate the agreement or disagreement simply by distinguishing the different propositions there are to agree and disagree with, and the different attitudes that can be taken towards them. Anne has a different attitude toward the same proposition as I do—and that’s that. And, it is much easier to understand how epistemic possibility can be a distinct propositional attitude with a distinct cognitive phenomenology if we understand it as being conditional on positive awareness of evidence, as suggested by PEEP.

Using these ideas, we can also polish off a problem about raising questions about epistemic possibilities. This problem concerns what it is to ask questions about epistemic possibilities, e.g. “Might my keys be in my jeans?” As Bach (2011, 42) describes the problem, “If you are asking about this possibility, presumably it is not ruled out by the information you already have. So it is possible that [the keys are in your jeans]. But, then, why are you asking the question? It seems you are asking a question to
which you already know the answer.” Bach tries to solve the puzzle by appealing to the fact that one can ask whether a given proposition is or isn’t ruled out by another person’s knowledge, such as an expert—a real stretch, in my view, and an ad hoc one at that. In the view of epistemic possibility I advocate, the question will seem natural once again.

The problem is especially acute for views that regard epistemic possibility as part of the content of a proposition, rather than an attitude toward it. But, linguistically to ask “Might p be true?” is simply to ask if is true that p. It’s not asking a question about an epistemic possibility, it’s asking a question about whether we should believe a given proposition. When we are still asking the question of what to believe, we are considering epistemic possibilities, so it makes sense that the language from one attitude should bleed into questions about the other.

Now there may be cases where one is actually asking a question about the higher-order proposition, about whether or not an attitude of epistemic possibility toward a proposition is valid. In that case I think the puzzle can be eliminated by considering how propositions are epistemically possible when supported by evidence that is accessible. According to PEEP, one may need to dig a little to see evidence one has and what it supports.

Is this move available for advocates of NEP? Could they say it takes some digging to see what is not ruled out? If to say that q rules out p is to say that q entails the negation of p, it can take investigation to see if q rules out p because not all implications are obvious. But if to say that q does not rule out p is to say that q does not entail the negation of p, then the only thing that could answer the question of whether p is possible is a full consistency proof. It’s doubtful that the digging subjects should be required to do before deciding what is possible should rise to the epic level of a Gödelian proof.

In the attempt to circumvent these problems, some advocates of NEP (e.g., Stanley (2005)) define epistemic possibility as whatever is not obviously ruled out. But this makes it even harder to see why one would ever bother asking whether a given proposition is possible. We don’t need to ask whether something is not obviously ruled out: if we are asking, it’s not obvious, and we have already answered the question. And yet again, the question seems fully sensible. The question simply makes more sense if it is a question about whether we have access to evidence to support a proposition.

### 3.5 Why epistemic possibility justifies investigation

In section 2.5 I referenced Michael Huemer’s point that attributions of epistemic possibility should help us understand why we investigate some claims but not others. On this count alone, the positive evidentialist view PEEP comes out way ahead of NEP, offering the simpler and better explanation. NEP defines epistemic possibility in terms of a proposition’s not being epistemically impossible. There is a clear difference between claims that are epistemically impossible and those that are
not. If, with Huemer, we say that our knowledge or evidence rules out the claim that our wallet is in the movie theater, NEP does explain why we do not consider or test the hypothesis that it is there.

Now one might think that if the epistemically impossible is worth conceptualizing because of how it explains what we do not investigate, the negation of the epistemically impossible is worth conceptualizing, as well. But that pattern is not generally true. There are vertebrates and invertebrates, but there is no concept of *non-vertebrates*. There is a mental placeholder I’ve just created with that hyphenated formula, but not every such formula is worth filing away in the form of a genuine concept, especially if it has no explanatory value. “Non-vertebrate” doesn’t highlight anything theoretically important that unites jellyfish, igneous rocks, cosmic plasma, and *True Confessions* magazine, even though none are vertebrates.

I subscribe to an account that maintains that definitions of concepts (philosophic or otherwise) should be evaluated by standards that derive from the cognitive purpose of concepts in general, and that definitions of particular concepts should be evaluated by the cognitive purpose served by the particular concept. On this account, concepts classify their referents by perceptually or theoretically important similarities, and in so doing help organize our knowledge and enable its application to life. Not only can definitions fail by failing to match the cognitive purpose of the concept they define, but they can fail by purporting to define a concept that lacks any significant cognitive purpose at all. There is such a thing as a useless cognitive grouping, which when designated by a word forms only half-baked or “invalid” concepts. To invoke an example from Nelson Goodman, while it is possible to group together things that are either a bag or a naval fleet (a “bagleet”), “bagleet” is not a “projectible predicate.”

The *not epistemically impossible* seems to comprise a disparate group similar to the group of *non-vertebrates* even if we restrict ourselves to the domain of discourse of mental states. It would include the attitude we have toward those propositions for which we have some but not conclusive evidence, and those for and against which we have no evidence at all. While we can cite the epistemic impossibility of a claim as an explanation for why someone does not consider or investigate it, identifying the *not epistemically impossible* possesses no such explanatory power.

It may not be epistemically impossible that Anne killed Colonel Mustard, but detectives do not consider this hypothesis nor investigate it simply because Anne is a human being capable of murder. It is also not epistemically impossible Scarlet killed Mustard, but detectives do investigate this hypothesis if Scarlet knew Mustard and had access to his chamber at the time of the murder. It is a mistake to conceptualize the *not epistemically impossible* because there are no theoretically important similarities linking the hypothesis about Scarlet with the speculation about Anne. (It may be important to treat them both as formal logical possibilities, but that is a conceptualization with an entirely different, non-epistemic theoretical purpose.)
I have already noted that an account of epistemic possibility should allow us to explain why we consider and investigate some possibilities but not others. There are too many sheer non-impossibilities to consider or investigate, so the number of candidates must be limited to something manageable. We cannot investigate and eliminate everyone in the world as suspects for a given murder. For this reason detectives will usually work with whole categories of suspects (family, friends, coworkers, etc.) before naming individuals, as doctors using the process of differential diagnosis will eliminate categories of pathology (vascular, infectious, environmental, congenital, etc.) in order to diagnose the cause of an affliction.

All of this means, incidentally, that Huemer (2007: 119) is mistaken when he says that “it is impossible that $p$” is the contradictory of “it is possible that $p$”: these two attitudes towards propositions are not jointly exhaustive. Some claims are neither epistemically possible nor impossible. Some are simply not epistemically possible, if they have no positive evidential status but are also not contradicted by evidence. These claims have no epistemic status. And it is useful for the epistemologist to leave such a space. While the question of whether $p$ may sometimes be answered by “maybe $p$, but maybe not $p$,” or by “definitely not $p$” (among other answers), we should not forget another answer: “I don’t know,” or simply “I have no view on this matter.”

3.6 Why concessive knowledge attributions sound contradictory

As we discussed in 2.6, all are agreed that statements called concessive knowledge attributions (CKAs) which have the following form, sound contradictory:

$$S \text{ knows } p, \text{ but it’s possible that not } p.$$  

But theorists are divided about why they seem this way: is it because they are really contradictory, or because they are merely pragmatically infelicitous? Many philosophers think that they need to explain the infelicity of concessive knowledge attributions without maintaining that they are contradictory in order to maintain fallibilism about knowledge attribution. Knowledge claims need to be consistent with the possibility of error, they think, otherwise what they take to be the ubiquitous possibility of error would threaten skepticism.

PEEP has a straightforward explanation for why CKAs seem contradictory: they are contradictory. Of course, to show that PEEP’s explanation of the paradoxical appearance of concessive knowledge attributions is the best explanation, some comparison to NEP’s explanation is needed.

There have been a variety of explanations, and I cannot enumerate them all here. But a prominent attempt to defend NEP involves insisting that concessive knowledge attributions are not actually contradictory. Because Dougherty and Rysiew (2009, 2011) claim that a version of NEP is true, they
think many epistemic possibilities claims are valid even in the absence of evidence in favor of them, and this includes epistemic possibilities that are inconsistent with many things we think we know.\textsuperscript{33} Dougherty and Rysiew do not want this concession to pave the way to skepticism, so they maintain that it is not contradictory to claim to know \( p \) while also claiming that \( p \) might be wrong. This is the “fallibilist” understanding of the concept of knowledge. To explain why such a CKA is not actually contradictory, they must explain away the \textit{mere appearance} that it is contradictory by invoking pragmatic considerations. They maintain that while “possibly not \( p \)” does not contradict “I know that \( p \),” the speaker’s not knowing \( p \) is still conversationally inferable from saying “possibly not \( p \).” Here is their explanation of the pragmatic problem:

\begin{quote}
[O]ne’s saying that non-\( p \) is possible implies, not just . . . that non-\( p \) has non-negligible probability, but that one has some real grounds for supposing not-\( p \) might be the case and that one (therefore) isn’t confident that \( p \). But if that’s so, one shouldn’t claim to know that \( p \), or attribute knowledge to another, since in so doing one of course represents oneself as (confidently) believing that \( p \) and as having adequate evidence for that belief. And if one \textit{doesn’t} think there’s not merely a non-zero chance that not-\( p \)—that not-\( p \) is not \textit{merely} possible—why mention it? Under the circumstances, doing so would be misleading at best. (128)
\end{quote}

Interestingly, Hacking (1967: 161) draws on a nearly identical explanation when he critiques Malcolm’s classic statement of the positive evidentialist view. If we can answer Dougherty and Rysiew’s explanation, we can also defend Malcolm against Hacking.

Dougherty and Rysiew are drawing here on the notion of Gricean conversational implicature, a view about what an audience will typically infer from the fact that a speaker has uttered a statement, which rightly maintains that not everything that is implied is spoken. But if the paradox should arise merely from the fact that it is senseless to \textit{speak} of epistemic possibilities contrary to what one knows, there should be no paradox associated with merely thinking of this possibility \textit{to oneself}. And yet, I maintain, there is.\textsuperscript{34} One can, of course, invoke here the idea of having a conversation with oneself, but on this matter I think this would stretch the idea to the breaking point. Grice’s conversational maxims derive from the need for speakers to cooperate; it’s not clear how such a maxim is necessary or relevant within the domain of one’s own thinking.

Even if someone insists that there is nothing paradoxical about thinking a CKA to oneself (which I deny on purely introspective grounds), there is still the question of whether the pragmatic explanation of the paradox is the \textit{best} explanation. \textit{Why} is there no point in asserting an epistemic possibility that has no evidence to support it, as the pragmatic explanation contends? The \textit{simplest explanation} would be that there is also no point in \textit{thinking} it—a point that is easily explained by the positive evidentialist conception advanced by PEEP. It maintains that there is no point in thinking it because it is \textit{invalid} to
think it. Now advocates of the conventional view can give other reasons for why there is no point in thinking it: it is a waste of time to consider epistemic possibilities that are not highly probable. But according to the view I have advanced, the waste of time in considering it is precisely the reason to think the conceptualization of “possible” as “not impossible” is unjustifiable, making it not just a waste of time, but positively cognitively destructive to form the concept along the lines NEP proposes. There is nothing to be gained and much to be lost by conceptualizing propositions that are merely not ruled out together with those with some evidence supporting them.

The ace up the sleeves of the advocates of the conventional NEP view is that there is much to be lost by insisting that concessive knowledge attributions are contradictory: if we must rule out every incompatible epistemic possibility to know something, then if we can’t do that, we don’t know anything and skepticism reigns. So they see a fallibilist conception of knowledge as necessary to preserve our grip on the reality of human knowledge. Fortunately, the very criterion of epistemic possibility PEEP advocates also negates the pertinent skeptical worries. We will explore this matter in our final section.

4 How evidentialist epistemic possibility avoids skepticism

If CKA’s are in fact contradictory, then knowing that \( p \) is incompatible with considering contradictory epistemic possibilities. Advocates of NEP think this implies skepticism because they think we cannot rule out numerous possibilities incompatible with what we think we know, and hence the following standard skeptical argument rears its head:

(P1) If I know that I have hands, then it is not epistemically possible for me that I am dreaming that I have hands.
(P2) It is epistemically possible for me that I am dreaming that I have hands.
(SC) Therefore, I do not know that I have hands.

J.L. Austin’s famous challenge to the skeptic (1946) can be seen as a way of challenging premise (P2). It’s true, says Austin, that we often need to rule out alternatives to \( p \) in order to know that \( p \). But to think that we have an alternative that needs to be ruled out, we must have a specific reason to think that alternative is possible in the first place. I could have a specific reason to think I am dreaming, for instance, if it is early in the morning and I am groggily looking up from bed, or if I find myself experiencing melting clocks, etc. But absent such specific evidence, there is no specific evidence to support the truth of (P2), and so no reason to consider it as possible or to doubt what we think we know. To the extent that doubting that \( p \) implies accepting some form of \( \sim p \) as epistemically possible, it seems that Austin was relying on an evidentialist criterion of epistemic possibility like PEEP. And to the extent that Austin draws on our ordinary linguistic practices of giving and asking for reasons to support this view, we have further linguistic evidence to support the plausibility of PEEP.36
Another way to see the issue here is from a Moorean perspective, though in a way that neither Moore nor his contemporary defenders (such as Huemer (2001)) seem to have considered. Moore would examine a skeptical argument that we do not know that we have hands and urge that whatever premises it would rely on would be less certain than the proposition that we have hands. Consequently the skeptical conclusion is but a *reductio ad absurdum* of the offending philosophical premises. The evidentialist criterion of epistemic possibility gives us a way to do just this, and (as Austin’s arguments suggest) this accords with Moorean common sense: it is far more obvious that we know that we have hands than that it is epistemically possible that we don’t—given that there is no obvious specific reason for thinking it’s epistemically possible, and given that even thinking about epistemic possibility one way or the other is a more sophisticated act than thinking about what we definitely know. Some, of course, may disagree about which is relatively more certain. I would suggest that prioritizing skeptical possibilities as more certain is usually an artifact of philosophical prejudice in favor of NEP, and not appropriately regarded as a given.

Interestingly, Huemer himself does not seem to apply these considerations to his own view of epistemic possibility. In order to distinguish his own criterion of epistemic possibility (which is a variant of the conventional view I am opposing) from other variations, he proposes that we take as *data*, i.e. as “examples of intuitively correct and appropriate ascriptions of epistemic possibility,” that philosophy students are wrong to dismiss as epistemically possible various skeptical doubts, e.g. that we might have no hands, because in the context of an epistemology class, “skeptical scenarios are particularly salient and relevant to the conversation” (2007, 135). Huemer suggests that students who dismiss this possibility either did not understand the skeptical argument or are presupposing *some controversial philosophical theory*. While he allows that epistemic possibility claims may be dismissed in other cases when they conflict with perceptual observation (e.g., the claim that it’s possible that Sam is in the air when Sam can plainly see that he’s landed), he thinks the standards for epistemic possibility claims are context-sensitive and of a higher grade in philosophy classes, such that here they cannot be dismissed on the basis of observation. In this context, after all, “one is meant to dismiss a possibility only if one’s evidence entails its negation” (2007, 135).

But that one is meant to do in a philosophical context derives from a *philosophic theory of epistemic possibility modeled on logical possibility, i.e. NEP*—the very theory in question here. Do we have reason to think that our theory of epistemic possibility is epistemically prior to our knowledge of whether we have hands? It is hard to see on what theory of knowledge this would be so. The debate about the meaning of epistemic possibility itself is arcane even by comparison to debates about skepticism.

If the above is correct, the evidentialist account of epistemic possibility enables a simple and direct response to skepticism. In my broadly Moorean framework, this as an independent advantage. I
take it for granted that we know things, and that any premises contributing to skepticism should be rejected. I urge that premise (P2) of the argument for skepticism is a likely cause of the problem, and as such should be challenged. Any premise that helps avoid the *reductio ad absurdum* of skepticism by contradicting (P2), such as PEEP, is therefore lent further support.

If PEEP is correct, the assertion of a possibility simply on the grounds that nothing contradicts it amounts to a version of *argumentum ad ignorantium*. The argument from ignorance, first labeled as such by Locke, is typically presented in logic textbooks as only applying to arguments for full assertions, e.g. “You can’t disprove the existence of life on Rigel 8. Therefore there is life on Rigel 8.” The textbook examples are patently fallacious. But if my proposed account is correct, philosophic skepticism suffers from the same fault. On the conventional NEP understanding of epistemic possibility, this inference is virtually definitional: “You can’t disprove the existence of life on Rigel 8. Therefore there might be life on Rigel 8.” On PEEP’s definition, the claim that there might be this life or that we might be dreaming also requires evidence, making the inference in the absence of such evidence a version of *ignorantium*.

The brevity of this section paper may seem breathtaking to some. To dismiss the worry about skepticism so dramatically—what audacity! I do not for a minute claim to have settled all worries about skeptical doubts. The main purpose of this section has been to respond to those who think that treating concessive knowledge attributions as contradictory leads to skepticism. My point in response is that the very theory I have been defending as offering a superior understanding of the paradox of CKAs carries with it an immediate answer to this worry. If we need specific evidence to consider something epistemically possible, then unless we have evidence that we are a brain in a vat, or dreaming, or the victim of an evil demon, *it’s not possible* that we are a brain in a vat, dreaming, or the victim of an evil demon. These propositions may be logically, metaphysically, or even nomologically possible. But they are not *epistemically* possible, not if we take seriously how epistemic possibilities differ from others, and the cognitive need we have for such a distinct kind of possibility.

I hasten to add that to claim that it is not possible that we are dreaming, etc., is *not* to claim that any of these scenarios are epistemically *impossible*. The evidentialist conception of epistemic possibility is not a license for omniscience. There will be cases when we have no reason to maintain an epistemic possibility that not *p*, and every reason to think we know that *p*—and yet we might still be wrong. But the “might” I have just used in describing this scenario is a simple nomological “might”: human beings are fallible, and make mistakes of this kind frequently. We can happily and readily admit this without thinking that the correct application of the concept “knowledge” is fallible in the sense of permitting epistemic possibilities of error. *Human beings* are fallible, but their *knowledge* is not—not when they have it. There is a separate question to be asked here about whether infallible knowledge possessed by fallible human beings is simply a matter of luck. I don’t think so, but that is a matter for another day.
5 Conclusion

I have argued that there is an array of data about the ordinary use of epistemic modals that supports a radical revolution in philosophers’ thinking about epistemic possibility. Most of this data can be agreed upon even by advocates of the conventional view that epistemic possibility is the mere absence of epistemic impossibility—the NEP. Philosophers rarely argue for this conventional view: it is assumed by most every party to every debate about epistemic possibility. I can only conclude that it has been accepted as a matter of inertia because it is easily modeled on other forms of possibility (especially logical possibility). And yet it is increasingly evident that epistemic modality is distinctive from others and serves a distinctive purpose. If so, we should take care to identify the distinctive epistemic purposes served by epistemic modals. Doing this requires identifying the overall purpose of epistemology as a discipline. In my view, epistemology is concerned primarily with offering first-person guidance to individual knowers. Individual knowers need to know which hypotheses are worthy of investigation, and which are so much speculation. This need highlights the need to conceptualize the epistemic spectrum continuously and without any gaps. It also necessitates the refusal to package together those claims that have no evidence for or against them with those that have some but not a preponderance of evidence in support of them. That is the cognitively counterproductive package suggested by the NEP. We must adopt a positive evidentialist conception of epistemic possibility that shatters the conventional package deal, offers individuals meaningful epistemic guidance, and (incidentally) undermines a historically prominent argument for skepticism.

1 Huemer gives a more complicated definition of the epistemically impossible (in terms of justified dismissibility), but this is still essentially defining the possibility of \( p \) as not knowing that \( p \) is false.
2 Likewise, Keith DeRose has defined epistemic possibility as follows: “S’s assertion “It is possible that \( p \)” is true if and only if (1) no member of the relevant community knows that \( p \) is false, and (2) there is no relevant way by which members of the relevant community can come to know that \( p \) is false” (1991, 593-4).
3 Dougherty (unpublished) has noticed that NEP is in effect modelled on modal logic’s definition of possibly \( p \) (\( \diamond p \)) as not necessarily not \( p \) (\( \neg \neg \neg \neg p \)). This is essentially parallel to the epistemic modal possibly \( p \) defined as not known that not \( p \).
4 In possible worlds semantics, the contents of beliefs are portrayed as functions from possible worlds to truth values. (See Stalnaker (1984).) Yalcin (2011) describes this view of belief contents to characterize his view of believing that it is possible that \( p \): it would require only a further narrowing to characterize belief in \( p \), full stop. For problems with this account of belief contents, see Robbins (2004). Another prominent view that maintains that knowledge is the ruling out of alternatives is found in the contrastivist views of Jonathan Schaffer (2005, 2007).
5 For more on Moore’s more explicit distinction between logical and epistemic possibility, see Moore (1962, p. 187). For discussion of Moore’s distinction see also Hacking (1967, pp. 146-8) and Teller (1972, pp. 303-4). I should note that I do not mean to endorse the priority of the mental thesis at work in Moore’s example here, which suggests that the data of introspective consciousness is always more certain than the date of sensory extrospection. Direct realist views of perception are compatible with similar claims about the certainty of extrospective data, at least if we accept the argument of the present paper.
6 I owe this example to Egan and Weatherson (2011, 2).
7 I’m indebted to Gregory Salmieri for this observation.
8 Other interpretations of metaphysical possibility are likewise put in positive terms: \( p \) is metaphysically possible if there is a state description in which it is true, or if there is an ersatz picture representing \( p \), or an ersatz set theoretic construction of matter in which \( p \), etc.
9 Admittedly the modern conception of nomological or causal possibility is defined in terms of what is not forbidden with the laws of nature. But the pre-modern conception, which does not try to model causality on obedience to divine law, does not equate...
the causally possible with the nomologically possible: some fact \( p \) is causally possible just in case it is a manifestation of a power. See Heil (2015).

10 See Bach (2011, p. 19).

11 Norman Malcolm (1963: 30) also draws attention to this usage in support of his evidentialist conception of epistemic possibility. But see Hacking (1967: 160–4) for a reply.

12 I take it that this is the view of Michael Huemer (2007), for instance.

13 I suspect there may be other necessary conditions as well. It may not be enough that one has evidence supporting \( p \). One may also need to be considering a question for which \( p \) is a possible answer.

14 There are of course legitimate questions about how much evidence counts as accessible, and whether or not mere accessibility is adequate to account for all of our justified beliefs and valid epistemic possibilities. Here it is useful to recall that internalists do not need to require that subjects have immediate access to justifiers to count as justifiers. For a version of accessibilist internalism that identifies a criterion of accessibility permissive enough to account for most ordinary judgments of justification, see Bayer (2012).

15 It is possible that Michael Scriven’s (1966) view on likelihood has also developed out of ordinary language considerations. Scriven (1966) suggests that we should treat claims that are disprovable and claims that are wholly unsupported by evidence as equally unworthy of consideration, such that “the absence of such evidence means there is no likelihood of the existence of the entity [and this, of course, is a complete justification for the claim that the entity does not exist, provided that the entity is not one which might leave no traces . . . . and provided that we have comprehensively examined the area where such evidence would appear if there were any” (102). If we are to read a degree of “likelihood” here as a form of epistemic possibility, Scriven would seem to agree with EEP: there must be at least some evidence for some degree of likelihood, or epistemic possibility.


18 The question of when positive knowledge of a nomological possibility is adequate evidence to establish an epistemic possibility is a highly contextual question. I will examine some of these issues in section 3.2, footnotes 26, 33 and 34.

19 I owe this distinction to Harry Binswanger (2014), p. 277.

20 See Papafragou (1998), pp. 390-92. She lists a series of studies, but I will not recite all of the citations.

21 One developmental linguist surveys a wealth of evidence supporting the idea that the onset of epistemic modals is concurrent with the onset of children’s theory of mind, which occurs around the same time as children begin epistemic reflection (Papafragou 1998). It is surprising just how early children appear to reflect on their mental states and their evidential status, when they are between three and four years old. (See Wimmer and Perner (1983), Wimmer, et al. (1988), Gopnik and Graf (1988), Pratt and Bryant (1990), Wellman, et. al (2001), Burr & Hofer (2002), Doherty (2009, 31–32)). This point helps address concerns by expressivists about epistemic possibility like Yalcin (2011, p. 308), who worry that a “descriptivist” or “factualist” account of epistemic possibility would demand too much of subjects who don’t have second-order beliefs, making it impossible for propositions to be epistemically possible for them.

22 There may be other forms of justification we require to take up these attitudes, but these could easily be pragmatic forms of justification rather than epistemic ones. It may be that we have reason to imagine that \( p \) because we are writing a novel, or simply because we are engaging in recreational reverie.

23 Here I owe the language of “admissibility” to Gregory Salmieri (private conversation). This consideration also helps explain when knowledge of nomological possibilities provides positive evidence for claims. For the most part only heads and tails are nomologically possible coin flip outcomes. Because there are so few of these possibilities, knowledge of them is sufficient to consider either heads or tails as epistemically possible before flipping a coin. Two possibilities can be cognitively processed. But we cannot process 7 billion possibilities when considering all of the people who are physically capable of committing murder. Perhaps these possibilities are admissible to a godlike cognitive agent, but not to human beings.

24 PEEP’s advantage over NEP is clarified by Yalcin’s (2011) description of the state of mind associated with the NEP conception of epistemic possibility:

\[
\text{To believe Bob might be in his office is simply to be in a doxastic state which fails to rule out the possibility that Bob is in his office. It is a first-order state of mind. . . . Note that on the first-order model, ‘epistemic modal’ is an unfortunate moniker, for there is no special role for a state of knowledge in this picture.}
\]


Never mind the seeming circularity in saying that holding something as possible is to fail to rule it out as possible: it is unclear that there is any special mental state of a subject who does not rule out some possibility. PEEP’s view that epistemic possibility is conditioned on awareness of accessible evidence just seems more psychologically plausible.

25 It’s been suggested that “plausibility” might serve the role for the missing category in the view of NEP. That’s possibly true, but I don’t regard it as plausible. The way I’ve just dismissed this claim shows why it won’t do. There are many claims we regard as possible but not plausible, and this is not just an artifact of treating “possible” as meaning “not ruled out.” I can treat someone as a suspect in a crime, or investigate a working hypothesis in any other field supported by some evidence, without yet thinking it is plausibly true. Dictionary definitions of “plausible,” back this up, equating it with the reasonable or plausible, which is too high of an epistemic status for the status we need “possible” to conceptualize.
26 Consider a personal favorite bit of internal monologue from Wayne’s World: “WAYNE: But what I’d really love is to do Wayne’s World for a living. It might happen. Sh’yeah, and monkeys might fly out of my butt.” Perhaps Wayne is simply drawing attention to the fact that the possibility he suggests in the first line is not very likely. But then again the comedy works better if we assume he is doing a sarcastic *reductio ad absurdum* of that claim.

27 Because epistemic possibility is not primarily the content of a proposition, but (initially) a modifier of the proposition or an attitude toward it, taking some proposition as epistemically possible is not something that can be true or false strictly speaking. But even if epistemic possibility is neither true nor false in a primary sense, it is *correct* to take some propositions as epistemically possible while *incorrect* to take others as such. As with belief the correctness here is derivative from the evaluation of the truth of the proposition they modify: they are correct when there is evidence for the truth of that proposition, even if the proposition is not ultimately true. We can speak loosely about epistemic possibilities that are based on actual evidence as “true” in the same way that it is somewhat loose to speak of beliefs as true, but another term to describe the correctness would be better: a *valid* epistemic possibility claim is one that is based on evidence. We can describe a *higher-order* proposition that is true in the strict sense, something on roughly the same order as the PEEP proposal itself. “p is epistemically possible” isn’t strictly speaking true or false, but “‘p is epistemically possible’ is valid for S” is true, strictly speaking, as are equivalent statements that offer a more descriptive picture of the propositional attitude adopted by S, e.g., “admitting p for serious consideration is valid for S” can be true, strictly speaking. In light of these considerations, we might revise PEEP slightly: (PEEP*): *it is epistemically possible that p is valid for S* only if there is some evidence specifically supporting p that is cognitively accessible to S.

28 If we think of epistemic possibility as an attitude toward a proposition, we do not need either of the popular solutions to the eavesdropping problem. We do not need to say with the contextualists that epistemic possibility propositions necessarily include an indexical reference to the speaker’s own context of knowledge. Contextualists say that when Anne disagrees with me, she is only indicating that there is no evidence to support the idea that the keys are in my pocket in *her* context of knowledge. This makes it difficult to see how she can acknowledge the sense in which I am right to say what I’ve said. This solution is unnecessary if epistemic modals are not part of the proposition in question in the first place: rather, different people can take different attitudes of possibility towards the same proposition, and even disagree about higher-order propositions about those attitudes.

Relativists, on the other hand, agree that it is implausible that each speaker considers a different indexically-referenced proposition. They maintain that there is one and only one proposition at issue, but that there are different truth predicates for each speaker: it’s *true for me* that there is an epistemic possibility that the keys are in my old jeans, but it’s *false for Anne* that this is so. But we don’t need to adopt multiple relativized truth predicates if we take the epistemic possibility out of the scope of the content of our beliefs. It is true *tout court* that the keys are not in my jeans, and true *tout court* that there is evidence supporting the opposite conclusion. These are different propositions, and there is no need to bring in a different truth predicate to account for the difference.

Contextualists, relativists, and “radical invariantists” like Bach (2012) also have a harder time accounting for an individual’s process of inquiry. If epistemic modals are part of the content of the proposition they are considering, then when an individual acquires more and more evidence to support some idea, paradoxically he will have to abandon beliefs in old propositions and adopt belief in new ones in the course of inquiry. According to the conventional view, the process of acquiring new evidence is essentially a process of disagreeing with what one thought in the past. This is silly. One has a positive attitude toward the proposition all along, only one’s confidence in it gradually increases. It’s not even right to call this cognitive phenomenology “changing one’s mind.”

At least one philosopher, Seth Yalcin (2011) has made a similar proposal to abandon the idea that epistemic possibility is the component of the content of a belief, which would make it ipso facto a second-order state of mind already, it is instead a kind of state of mind or attitude toward a proposition. This much about his view is correct, and he does a good job showing how it easily dissolves a series of puzzles about epistemic modals along similar lines to what we have done. But see my comments in note 27 above about how Yalcin’s account of the epistemic possibility helps illustrate what is wrong with the cognitive phenomenology of NEP.

29 See Gotthelf and Lennox (2013) for an excellent collection of essays that develops this account of concepts and definitions in relation to a number of topics in the sciences. See the Salmieri (2013) contribution to the volume, in particular, for an especially well-developed generalization of this account that would apply to philosophic concepts as much as it would to scientific ones.

30 I owe this point to Gregory Salmieri.

31 These categories, being limited in number, are formed by knowledge of *nomological* possibilities that are relevant to consider in a given context by virtue of their cognitive processability (see footnote 26 above). Incidentally, even if Anne is the victim’s friend, it doesn’t follow from “Possibly a friend is the murderer” that “Possibly Anne is the murderer.” We know that modal contexts are intensional and so we cannot intersubstitute extensional equivalents into them *sola veritate.* Necessarily, nine is greater than 7. It does not follow that necessarily, the number of planets is greater than 7. Epistemic possibility is an operator that is not closed under known entailment.

32 I have argued in footnote 30 that as a kind of propositional attitude, an expression of epistemic possibility is not strictly speaking true or false. So the kind of contradiction between the whole of the left and right-hand side of the CKA can’t be a matter of the contradictory truth values of propositions. Then again, I’ve suggested that disagreement among people about epistemic modals can be understood as a matter of contrasting attitudes towards the same proposition. As long as we can understand disagreement among speakers as an incompatibility among attitudes, we can do the same here for a speaker’s disagreement with himself. This is not that far from the way that p is just the contradictory of ¬p. “S knows p” expresses a positive attitude toward p, but so does “it’s possible that”: a positive attitude toward p and a positive attitude toward ¬p are contradictory attitudes.
Admittedly they are contradictory in a derivative sense, but this is no different than the way in which beliefs are contradictory is derivative, given that beliefs have truth values only in virtue of the truth value of the proposition they are beliefs about. In any case, expressivists like Yalcin (2011) are quite confident that it is trivial to show how removing epistemic modality from the content of propositions can explain the contradictory nature of concessive knowledge attributes. Here Yalcin cites the work of Veltman (1985) and Heim (1992).

The specific version of NEP that Dougherty and Rysiew maintain is as follows: “\(q\) is epistemically possible for \(S\) iff not-\(q\) isn’t entailed by \(S\)’s evidence” (2009, p. 127).

Also, I would suggest that the contradiction of the CKA can be inferred from some very basic trivialities about knowledge. See Dodd (2011, p. 229) for a compelling argument from premises that both advocates of NEP and PEEP would accept the conclusion that knowledge attributions must be infallible.

It is interesting that Austin’s challenge involves both an appeal to relevant alternatives and the injunction that we have a special reason to doubt, i.e. to think that it is possible that we are mistaken. His line of attack suggests the following equivalence: \(p\) is a relevant alternative to \(q\) if and only if it is epistemically possible that \(p\). If that’s the right, then PEEP’s critique of premise (P2) of the argument for skepticism also suggests a workable way to deny closure under known entailment and so also (P1), which is closely connected to that principle if NEP is true. No one thinks seriously that knowing that \(q\) implies knowing any and all logical consequences of \(q\). The debate is over a subset of these consequences, including especially “contrast consequences” (any claim that entails the negation of \(q\)). Dretske’s view leverages analogies to operators apart from “know” (such as “explain”) which also do not seem to penetrate logically to their contrast consequences. And Dretske, like Austin, agrees that knowing penetrates to some contrast consequences, for to know that something is a zebra, we must know that it is not a mule. So some criterion is needed to segment the relevant alternatives which need to be ruled out in order to know. Dretske’s proposed criterion of relevance, spelled out in terms of nearby possible worlds is, with all things involving speculative modal metaphysics, highly contentious. But if the connection between relevance and epistemic possibility above is correct, we don’t need modal metaphysics to narrow down the field of alternatives. This formulation combined with PEEP yields the implication that \(p\) is a relevant alternative only if there is some evidence that \(p\). So we can work out an epistemic rather than a metaphysical account of relevant alternatives that can contribute to critiquing the argument for skepticism, this time by undermining premise (P1) as well as (P2). This is sensible, since as Stroud (1984) has argued, there is reason to think that if we accept premise (P1) and don’t deny closure for all contrast consequences, it is hard to avoid premise (P2).

Stroud (1984: 44-64) suggests that Austin confines the conditions for making acceptable assertions about what we know with the conditions for actually knowing. According to Stroud, even if it is conversationally inappropriate to allege that someone does not know in the absence of a specific reason to doubt, this does not mean that one knows simply because one lacks a reason to doubt. I agree with this distinction. But the broader point Stroud is missing is one about the criterion is needed to segment the relevant alternatives which need to be ruled out in order to know. Dretske’s proposed criterion of relevance, spelled out in terms of nearby possible worlds is, with all things involving speculative modal metaphysics, highly contentious. But if the connection between relevance and epistemic possibility above is correct, we don’t need modal metaphysics to narrow down the field of alternatives. This formulation combined with PEEP yields the implication that \(p\) is a relevant alternative only if there is some evidence that \(p\). So we can work out an epistemic rather than a metaphysical account of relevant alternatives that can contribute to critiquing the argument for skepticism, this time by undermining premise (P1) as well as (P2). This is sensible, since as Stroud (1984) has argued, there is reason to think that if we accept premise (P1) and don’t deny closure for all contrast consequences, it is hard to avoid premise (P2).

Stroud (1984: 83-127). His objection, to summarize it briefly, is that one cannot simply rely on a high degree of psychological confidence in a proposition to dismiss arguments contradicting it. Stroud offers this counterexample: suppose that a detective’s assistant argues that the butler murdered the duke using as evidence a plausible assertion about what we know with the conditions for actually knowing. According to Stroud, even if it is conversationally inappropriate to allege that someone does not know in the absence of a specific reason to doubt, this does not mean that one knows simply because one lacks a reason to doubt. I agree with this distinction. But the broader point Stroud is missing is one about the criterion is needed to segment the relevant alternatives which need to be ruled out in order to know. Dretske’s proposed criterion of relevance, spelled out in terms of nearby possible worlds is, with all things involving speculative modal metaphysics, highly contentious. But if the connection between relevance and epistemic possibility above is correct, we don’t need modal metaphysics to narrow down the field of alternatives. This formulation combined with PEEP yields the implication that \(p\) is a relevant alternative only if there is some evidence that \(p\). So we can work out an epistemic rather than a metaphysical account of relevant alternatives that can contribute to critiquing the argument for skepticism, this time by undermining premise (P1) as well as (P2). This is sensible, since as Stroud (1984) has argued, there is reason to think that if we accept premise (P1) and don’t deny closure for all contrast consequences, it is hard to avoid premise (P2).

Sometimes anti-skeptics will make this move in order to deny the closure of knowledge under known implication (a principle closely related to (P1) in some skeptical arguments): it is far more obvious, they’ll say, that we know that we have hands than that closure is true, and so much the worse for closure.

Stroud critiques Moore’s tactic shortly after critiquing Austin (1984: 83-127). His objection, to summarize it briefly, is that one cannot simply rely on a high degree of psychological confidence in a proposition to dismiss arguments contradicting it. Stroud offers this counterexample: suppose that a detective’s assistant argues that the butler murdered the duke using as evidence a list of people who were visiting a party. The assistant should not dismiss the experienced detective’s objection to the reliability of the guest list simply because he, the assistant, believes strongly that the butler did it and infers that the detective’s assessment of the list must be wrong. But I agree with Huemer (2001, 40-44) that while Stroud’s response shows that not any strong belief contradicting a conclusion can be used to challenge the premises supporting it, there is still a condition in which we can challenge the premises in this way. If we have a theory of knowledge according to which the subject matter of the conclusion is epistemically prior to that of the premises, we can assume that it is more obvious that the conclusion is false than that the premises are true. It is unwarranted to take for granted that the butler did it in Stroud’s example, because this is a conclusion that must be inferred from observational evidence, an inference more advanced than knowledge of the reliability of the author of the guest list (the first involves a complex inference to the best explanation, the second merely a generalization about the list-writer’s track record). But on almost anybody’s theory of knowledge, our knowledge of whether we have hands is less a matter of inference than most anything else and we will be more warranted in taking it for granted than many other propositions.

For two advocates of judging baseless “possibilities” as committing ignorantiam, see Adler (2006, 103–112) and Peikoff (1991, 167–168).
Bibliography


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