Sensitivity, Reflective Knowledge, and Skepticism

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Abstract

Michael Huemer, Ernest Sosa, and Jonathan Vogel have offered a critique of the sensitivity condition on knowledge. According to them, the condition implies that you cannot know of any particular proposition that you do not falsely believe it. Their arguments rest on the claim that you cannot sensitively believe of any particular proposition that you do not falsely believe it. However, as we shall see, these philosophers are mistaken. You can do so. That said, these philosophers were close to the mark. There are some related propositions that you cannot believe sensitively. These propositions are interesting in another respect: they can be used to construct a new skeptical argument that is superior in some respects to a more traditional skeptical argument. This new skeptical argument also reveals insights about the relationship between internalism, externalism, and skepticism.

Keywords

sensitivity — reflective knowledge — skepticism — internalism — externalism

0 Introduction

S's belief in a proposition P is *sensitive* just in case the following holds: if P were false, S would not believe P.[1] Some think that sensitivity is a necessary condition on knowledge. That is, they endorse:

> *Sensitivity*: Necessarily, if S knows that P then S's belief that P is
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> sensitive.[2]

This paper will focus on a putative counterexample to Sensitivity offered by Michael Huemer, Ernest Sosa, and Jonathan Vogel. These authors hold that you cannot sensitively believe that a particular one of your beliefs is not false.[3] For instance, according to them you cannot sensitively believe that your belief that you are less than a thousand years old is not false. Suppose Huemer, Sosa, and Vogel are right that you cannot sensitively believe that a particular one of your beliefs

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[1] It is worth noting that some definitions of "sensitive" relativize to methods. I discuss this further below.

[2] For an important early discussion of sensitivity and its relationship to knowledge see (Nozick 1981). For a more recent collection of essays devoted to the topic, see (Becker and Black 2012).

[3] See (Huemer 2001, 86), (Sosa 1999, 145), (Vogel 2000, 609), (Vogel 2012, 138-140).

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is not false. Then it follows from Sensitivity that you cannot know a particular one of your beliefs is not false. So, for instance, it follows from Sensitivity that you cannot know that your belief that you are less than a thousand years old is not false. This is alleged to be a counter-example to Sensitivity because most people think you can know such things.

These philosophers take this to be a fairly important objection to Sensitivity. Vogel mentions it in three different papers (Vogel 2000, 609), (Vogel 2007, 79), (Vogel 2012, 138-40). And speaking of such an example, Sosa writes, "this sort of counterexample ... strikes me as conclusive" (Sosa 1999, 152).

However, as we shall see, these philosophers are mistaken.[4] You can sensitively believe that a given one of your beliefs is not false. That said, these philosophers were close to the mark. There are some related propositions that you cannot believe sensitively. These propositions are interesting in another respect: they can be used to construct a new Sensitivity-based skeptical argument.[5] This new argument is superior in some respects to a more traditional Sensitivity-based skeptical argument and reveals insights about the connection between internalism, externalism and skepticism.

The plan of this paper is as follows: Section 1 examines a particular case discussed by Vogel in connection with the claim that you cannot sensitively believe that a particular one of your beliefs is not false. Spelling out the case more fully reveals that Vogel's verdict on it is mistaken. In other words, Vogel's own case can be used as a counter-example to his (and Huemer and Sosa's) general claim that you cannot sensitively believe that a particular one of your beliefs

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[4] For some other criticisms of these authors, see (Becker 2006), (Cross 2007), and (Salerno 2010).

[5] By a "Sensitivity-based skeptical argument" I mean a skeptical argument one of whose premises is Sensitivity.

is false. Section 2 examines an argument that Vogel has given for the claim that you cannot sensitively believe that a given one of your beliefs is not false. It uses lessons from Vogel's case to explain where Vogel's argument goes awry. Vogel gave his argument in the context of a larger argument to the conclusion that Sensitivity entails that you cannot know a particular one of your beliefs is not false. A potential fix for this larger argument is discussed and rejected. Section 3 offers a new sort of proposition that you cannot believe sensitively. Section 4 explains how this sort of proposition can be used to generate a new Sensitivity-based skeptical argument and how this argument is superior in some respects to a more traditional Sensitivity-based skeptical argument.

## 1 Vogel's Case

This section examines a particular case discussed by Jonathan Vogel. Vogel attempts to use the case to illustrate the general claim that one cannot sensitively believe of a proposition that one does not falsely believe it. But it will be seen that Vogel's own case, suitably spelled out, provides a counter-example to this general claim. Here is the case:

> You see your long-time friend Omar, who is a perfectly decent and straightforward sort of person. Noticing his shiny white footwear, you say, 'Nice shoes, Omar, are they new?' Omar replies, 'Yes, I bought them yesterday.' (Vogel 2000, 609-610).

Vogel continues:

> I think the following things are true: ... [1] you know Omar has a new pair of shoes. ... [2] You know that your belief that Omar has a new pair of shoes is ... not false. (Vogel 2000, 609-610).

However, according to Vogel, your knowing that your belief is not false is incompatible with Sensitivity. Vogel thinks it is incompatible because he endorses the following conditional:

> [3] If your belief that Omar has a new pair of shoes were false, you would still believe that your belief was ... not false (Vogel 2000, 610).

Let us clarify what is going on. We are interested in the proposition that you do not falsely believe that Omar has new shoes. [3] says that you do not have a sensitive belief in this proposition. In other words, [3] says that you do not have a sensitive belief that you do not falsely believe that Omar has new shoes. So [3] is an instance of the more general claim that Huemer, Sosa, and Vogel accept, namely that you cannot sensitively believe that a particular one of your beliefs is not false.

Vogel is using [3] in the context of arguing that Sensitivity implies that you cannot know that you do not falsely believe that Omar has new shoes. He thinks that this presents a problem for Sensitivity, because he thinks that you do know that you do not falsely believe that Omar has new shoes.

Because Vogel wishes to make a general point about knowing that your beliefs are not false, he doesn't spend much time examining this particular case. Instead, he presents a general argument for his conclusion. But before we examine this argument, it will be helpful to examine

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the case itself more carefully. Vogel seems confident that [3] is true, i.e. that the relevant belief is not sensitive. But arguably, on some natural ways of filling in the details, [3] comes out false.

To see this, we will have to evaluate [3]. But evaluating [3] on the basis of Vogel's story alone turns out to be somewhat difficult. Vogel has stressed that Omar is trustworthy. But Omar is the one who told you he had new shoes. This makes it hard to know what would have been the case if you had falsely believed that Omar had a new pair of shoes. So we need to flesh out the story slightly. Perhaps the most natural way of fleshing out the story runs as follows. As Vogel mentioned, Omar is a trustworthy guy and not likely to lead you astray. So if you had falsely believed that his shoes were new, it probably wouldn't have been because he told you they were new. Instead, you probably would have believed they were new for some other reason. So let us pick another reason.

Vogel's story involves you asking Omar if he has new shoes. This suggests that even before Omar confirmed it, you were already ready to believe that they were new. So probably, if you had falsely believed the shoes were new, it would be because you hadn't checked with Omar, but rather because you believed it on the basis of the way they looked. In such a case, you probably wouldn't have taken the time to form a belief about whether your belief that Omar had new shoes was true or false. After all, in such a case you wouldn't have bothered to ask him if his shoes were new, even though he was standing right in front of you.

In short, on a rather natural filling out of the story, if you had believed falsely that the shoes were new, you would have done so on the basis of the way they looked, and wouldn't have taken the time to form a belief as to whether or not you believed falsely that the shoes were new.

On this fleshing out, [3] comes out false. It is not the case that if your belief that Omar has a new pair of shoes had been false, you would still have believed that your belief was not false.

At this point I have shown that Vogel's original case, once suitably spelled out, is a case of sensitive belief. Thus Vogel's original case can be used to show that one can sensitively believe that one does not believe falsely.

It is worth noting that the standard definition of "sensitive" given by those who defend a sensitivity condition on knowledge is different from the one I originally presented. In particular, I have said that S's belief in a proposition p is *sensitive* just in case the following holds: if P were false, S would not believe P. However, standardly people who defend sensitivity conditions on knowledge offer other definitions of "sensitive" that make reference to belief-forming methods. Given this, it is worth investigating if Vogel's case spells problems once we understand "sensitive" in these new ways.

There are two common ways of defining "sensitive" so as to make reference to belief-forming methods. The first runs as follows:

S's belief in proposition P formed by method M, is *sensitive\** just in case if P had been false, S wouldn't have believed P by method M.[6]

My original way of spelling out the example shows that one can sensitively* believe of a proposition that one does not falsely believe it. In particular, on the way I spelled out the story, if you had falsely that the shoes were new, you wouldn't have had any beliefs about whether you falsely believed that the shoes were new. And thus, in particular, you wouldn't have believed by your original method that you didn't falsely believe that the shoes were new.

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[6] For discussion, see e.g. (Alfano 2009, 274), (Goldberg 2012, 43), (Williamson 2000, 154).

The second common way of defining "sensitive" so as to make reference to belief-forming methods is as follows:

S's belief in proposition p formed by method M, is *sensitive*\*\* just in case if both

P had been false and S had used method M to form a belief as to P, S wouldn't

have believed P by method M.[7]

In order to examine whether one can sensitively\*\* believe of a proposition that one does not falsely believe it, we will have to look at some new ways to fill out the story. In particular, we will have to fill in some details to see what would have happened if you had falsely believed that Omar had new shoes and had formed a belief – via your original method – as to whether you falsely believed that Omar had new shoes.

I take it that your original method for forming the belief that you are not mistaken can be characterized as follows – your belief is formed by quickly reflecting on Omar's testimony and your knowledge that he is a perfectly decent and straightforward person and that he responded promptly and crisply. It follows that to determine whether your belief that Omar had new shoes is sensitive\*\*, on this characterization of your belief-forming method, we have to see what would have happened if your belief that Omar had new shoes were false and you had formed a belief as to whether it was false via a quick reflective process involving Omar's testimony and some judgments regarding his character and the way he responded.

As noted above, if you had falsely believed that Omar had new shoes, it would probably have been because they looked new and not because you had asked Omar. So suppose you had

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[7] See e.g. (Alfano 2009, 275), (Bernecker 2012, 4), (Black 2002, 153), (Black and Murphy 2007, 65), (Williamson 2000, 153).

formed the belief that Omar had new shoes on the basis of the way they looked. Suppose further that you began to wonder whether your belief was true. The natural thing to do, given that trustworthy Omar is standing right there, is to ask him if his shoes were new. Presumably, being such a trustworthy fellow, he would have answered that his shoes were not new. On the basis of a quick reflective process that took in his testimony – "My shoes are not new" – plus facts about his trustworthy character and the way he spoke, you would come to believe that your belief that he has new shoes is false.

In short, on a natural filling out of the story, if you had believed falsely that Omar had new shoes and had formed a belief about whether your belief was true or false via your original method you would have come to believe that your belief that he had new shoes is false. So, on this natural way of spelling out the case, your belief is sensitive**.

I should pause a second to note that I am here suggesting that you can come to believe that one of your beliefs is false. This is something that Michael Huemer has denied. He argues: "people who are mistaken don't think they are mistaken; if they did, they wouldn't hold the mistaken belief" (Huemer 2001, 186). Huemer's argument here is problematic. Huemer is certainly right that it would be odd to hold on to a belief that one believed to be mistaken. But that doesn't

show that you cannot come to believe that a particular belief of yours is mistaken and then let it go, as long as this happens relatively quickly.[8]

At this point, I have argued that there are natural ways of spelling out the story on which your belief is sensitive, sensitive* and sensitive**. It might be worried that I have derived this result by relying on a trick. In particular, on the ways I have spelled out the case, if you had falsely believed that Omar had new shoes, you would have believed this on the basis of perception. But in the actual world you believe this on the basis of testimony. This might strike a reader as somewhat odd. To comfort such a reader, I will argue that I can get the results I want even if we spell out the case so that if you had falsely believed that Omar had new shoes, it would have been on the basis of Omar's testimony.

In order to flesh out the story in this new way, we will have to consider a counterfactual case in which Omar's shoes were not new and he said they were. This is hard to do, because Vogel has mentioned in the story that Omar is trustworthy. One way to spell out such a case is to say that if Omar's shoes had not been new and he had nonetheless told you they were, there would have been signs that cast doubt on the fact that he was speaking the truth, e.g. he would

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[8] Huemer does not respond to the point I make. But he does respond to a different objection to his view, namely that a certain utterance is acceptable, but this utterance should be unacceptable on his view:

> Sometimes a person will say 'Well, it looks like I'm mistaken,' but this means that something he previously said or thought was mistaken; he does not believe this thing at the same time that he is saying it is mistaken. (Huemer 2001, 186).

Here also, what Huemer says is fairly uncompelling. Huemer does not offer a particularly natural interpretation of the quote he has just presented. After all, the quote says "I'm mistaken" not "I was mistaken."

have been speaking in a sarcastic tone of voice or you would have had fewer reasons to trust him, or something else like this.

Let us look at an example of this sort of way of spelling out the case. In particular, let us suppose that if Omar's shoes had not been new and you had asked him if he had new shoes, he would have sarcastically said "yes." Now, normally when someone sarcastically says that they have new shoes, it is obvious that their shoes are not new, and they are annoyed at you for not having noticed. So if you had mistakenly believed Omar's shoes were new in such a case, you presumably would not have been paying much attention. For you would have missed both his sarcasm and the fact that his shoes were obviously not new. But if you weren't paying much attention, you probably wouldn't have stopped to think about whether your belief that he had new shoes was false or not. Thus, your belief counts as sensitive and sensitive*. In particular, if you had falsely believed that his shoes were new, you would not have believed – by any method – that you did not falsely believe it. Furthermore suppose you took him at his word that his shoes were new and then paused to quickly reflect on whether your belief was false. Presumably, being a normal adult, you would realize that you had missed his sarcasm and thus come to believe that your belief that he had new shoes was false.[9] Thus your belief counts as sensitive**. That is, if

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[9] Of course, not all sarcasm is obvious. I have fleshed out the story so that if Omar had falsely told you his shoes were new, it would be because he was obviously being sarcastic. Suppose we flesh it out differently, so that if you had falsely believed that Omar had new shoes, it would be because Omar was subtly being sarcastic. That is, on this new fleshing out, even if Omar hadn't had new shoes, he would have told you he did have new shoes in virtually the same tone of voice. On this new fleshing out, your belief is arguably not sensitive**. But this does not seem like much of a problem for Sensitivity. Arguably, if Omar is disposed to tell you that he has new shoes in the same tone of voice whether he does or not, then you cannot come to know on the basis of his testimony that he has new shoes.

you had falsely believed he had new shoes and had formed a belief as to whether your belief was false via your original method, you would have believed that your belief was false.

In short, even if we spell out the case so that if you had falsely believed that Omar had new shoes, it would have been on the basis of Omar's testimony, a natural reading yields the conclusion that your belief that you do not falsely believe that he has new shoes is sensitive, sensitive*, and sensitive**.

In summary, I have argued that Vogel's own story offers us a counterexample to the general claim that you cannot sensitively believe that a particular one of your beliefs is not false. This is so, even if we relativize sensitivity to methods.

Of course, I have merely discussed one example. But the general lessons from my example apply to other cases of believing one is not mistaken. In particular, one can sensitively believe that one is not mistaken in believing that P so long as, if one had been mistaken, things would have been different with regards to whether and/or how one formed the belief that one is mistaken.

## 2 Vogel's Argument

Now I will criticize an argument Vogel gives for the claim you cannot sensitively believe that a particular one of your beliefs is not false. As noted above, he is interested in using this claim to establish the further result that Sensitivity implies that you cannot know that a particular one of your beliefs is not false.

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Vogel uses details from the Omar case, but his argument is supposed to apply to any case. He writes:

> Let N = 'Omar has new shoes'. As the example goes, you ... know that you don't have a false belief that Omar has new shoes. What you know can be symbolized as
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> [4] ¬(¬N & B(N)).
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> But it is impossible for you to [sensitively believe] [4]. Here is why. If [4] were false, then
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> [5] ¬N & B(N)
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> By simplification, [5] entails B(N). Thus:
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> [6] (¬N & B(N)) ⇒ B(N)
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> Now, if you have your wits about you and you have a first-order belief N, you will also believe that N isn't false, and that a belief that N isn't a false belief. Hence:
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> [7] B(N) ⇒ B(¬(¬N & B(N))).

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[3] (¬N & B(N)) ⟹ (B¬(¬N & B(N))). (Vogel 2000, 610).

The problematic step in Vogel's argument is his defense of [7]. Vogel justifies [7] by saying that if you have your wits about you and you have a first-order belief N, you also believe that a belief that N isn't a false belief.

This claim is not particularly plausible. We can see how it fails by thinking of the way of spelling out the Omar case we considered after introducing the definition of "sensitive**". As a reminder, on this way of spelling out the case, if you had falsely believed that Omar's shoes were new, you would have believed it on the basis of how they looked. Then, trying to confirm that you did not falsely believe, you would have asked Omar if his shoes were new. He would have told you that they were not and you would have come to believe that you falsely believed that Omar's shoes were new. You then would have dropped your belief that Omar's shoes were new.

Such a case seems to involve you having your wits about you. But it is a case in which, even though you falsely believe that Omar's shoes are new, you do not believe that your belief isn't a false one. So, as it stands, Vogel's argument relies on the false claim that if you believe something and have your wits about you, then you believe that your belief is not false.

So Vogel's argument for [3] – and thus for the general claim that you cannot sensitively believe that a particular one of your beliefs is not false – fails. It fails because normal people, even those that have their wits about them, do not always believe of each of their first-order beliefs that they aren't false beliefs. This means that Vogel will not be able to establish the general

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claim that you cannot sensitively believe that a particular one of your beliefs is not false. So he will not be able to use this to establish the claim that Sensitivity implies that one cannot know of any proposition that one does not falsely believe it.

But there is a way of modifying the argument that might appear to help Vogel around this worry. It may not be true that if one is a normal person and one believes a proposition, then one believes that one does not falsely believe it. But, Vogel could contend, it is true of rational people.[10] After all, for any proposition P, P entails that one does not falsely believe that P. And it is somewhat plausible that rational people believe all entailments of their beliefs. This thought lends some support to the following claim:

8. Necessarily, if S is rational then if S falsely believed some proposition P, S would believe that S did not falsely believe P.[11]

[8] says that if one is a rational person then one always believes of false propositions that one believes that one does not falsely believe them. So if [8] were correct, then Sensitivity would imply that if one is a rational person then one cannot know of some particular proposition that one does not falsely believe it. Vogel could then try to link normal people and rational people via the following principle.

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[10] By "rational" I mean something like: ideally rational. I don't mean to be using "rational" in a way so that a good proportion of adult humans count as rational. Thanks to Ted Warfield for pressing me to clarify.

[11] It should be noted that, strictly speaking, [8] does not follow from the claim that rational people believe all entailments of their beliefs. The claim that rational people believe all entailments of their beliefs is a claim about what rational people *actually* believe. [8] is a claim about what a person who is *actually* rational would believe in a *counterfactual* situation. But there is no guarantee that someone who is *actually* rational would have been rational if things had been different.

9. Necessarily, for any proposition P, if you know that P, then if you were rational you would know P.

Together, [8] and [9] establish Vogel's desired conclusion. [9] implies that if you know that you do not falsely believe some proposition, then if you were rational you would continue to know it. And as we have already seen, [8] implies that if Sensitivity is true, then if one is rational one cannot know of a particular proposition that one does not falsely believe it. So [8] and [9] together entail that Sensitivity implies that you cannot know of any particular proposition that you do not falsely believe it. This means that Vogel could offer a revised argument with [8] and [9] as premises and the conclusion that Sensitivity is incompatible with your knowing of any particular proposition that you do not falsely believe it.

Unfortunately, this revised argument is rather problematic. In particular, [9] seems to admit of simple counterexamples, such as the following: I am in a position to know that I am less than fully rational. But if I were fully rational, I would not be in a position to know this.[12]

Thus, neither Vogel's original argument, nor a modification of it, shows that Sensitivity is incompatible with knowing of a particular belief that it is not false.

## 3 New sort of propositions

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[12] Thanks to an anonymous referee for pointing this out.

The news is not all negative; we can use the problems with Vogel's argument to generate examples of propositions that cannot be sensitively believed. Recall that the problem with Vogel's argument was that some people do not always believe what is entailed by what they believe. Using this, we can give a new type of proposition that is impossible to sensitively believe. Let A be the proposition that it will rain tomorrow. Consider the proposition (call it B): A or I don't believe A or I don't believe the logical consequences of everything I believe. Now consider the argument:

10. Necessarily A entails B. (From definition of B)

11. Necessarily, if B were false, then I would believe A. (From definition of B)

12. Necessarily, if B were false, then I would believe the logical consequences of everything I believed. (From definition of B)

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13. Necessarily, if B were false, I would believe B. (From 10, 11, 12)

Before I explain the significance of this argument I would like to make a quick remark about generalizing it. Parallel sound arguments can be constructed for all propositions of the same form as B so long as it is possible for B to be false. Recall that B says: A or I don't believe that A or I don't believe the logical consequences of everything I believe. This can be false if it is possible for me to falsely believe that A while believing the logical consequences of everything I believe.[13] Assuming it is possible for me to believe the logical consequences of everything I be-

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[13] The "can'" here is not an epistemic one. But I am not taking a stand here on whether it is nomic, metaphysical, or logical -- what I want to say is compatible with each of these. Thanks to an anonymous referee for pressing me on this.

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lieve, this in turn is possible so long as it is possible for me to falsely believe A.[14] It should be noted that there are many propositions I can falsely believe. Indeed, arguably the propositions that I can falsely believe include some that I believe via introspection, such as that it looks as if there are 37 dots in my visual field. This will be relevant later on.

The argument establishes that I cannot sensitively believe most propositions of the same form as B. It follows that Sensitivity entails that I cannot know most propositions of the same form as B. This is perhaps not as problematic as in the case of the original propositions that Huemer, Sosa, and Vogel claimed were unknowable. After all, propositions like B are somewhat strange.

But it would be at least somewhat surprising if B and its ilk are unknowable. E.g. normally one would think that I could know propositions like the following: either it will rain tomorrow or I don't believe it will rain tomorrow or I don't believe the consequences of everything I believe. So this looks like a problem for Sensitivity.

The issues become somewhat more subtle when we relativize Sensitivity to methods. As noted above, there are multiple ways to relativize Sensitivity to methods. One way was the following:

S's belief in proposition P formed by method M, is *sensitive*** just in case if both P had been false and S had used method M to form a belief as to P, S wouldn't have believed P by method M.

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[14] In case one is worried about there being too many logical consequences, we can alter the definition of B to limit the consequences to those that can be written in fewer than 100 characters. Surely it's possible for me to believe those.

For this way of relativizing to methods, the conclusion of the argument above establishes that B cannot be sensitively** believed. To see this, suppose S believes B by some method, M. Now suppose that both B had been false and S had used method M to form a belief as to B. By the argument above, if B had been false, then S would have believed B. Meanwhile, we are supposing that S is using method M to form a belief as to B. Thus, the conclusion of the conditional follows: S would have believed B by method M.

The other way of relativizing Sensitivity to methods was the following:


S's belief in proposition P formed by method M, is *sensitive** just in case if P had been

false, S wouldn't have believed P by method M.

For this way of relativizing to methods, the conclusion of the argument above does not establish that B cannot be sensitively* believed. To see this, suppose S believes B by some method, M. Now, suppose that B had been false. By the argument above, S would have believed B. But not necessarily by method M.

One way to accommodate this issue is to offer a new definition. Let B* be A or I don't believe B* by this method. Let me clarify the second clause a little further. I mean for "this method" to be functioning as an indexical term of direct reference that refers to the method one is currently using to believe B*. Thanks to the second clause of the definition of B*, it is the case that necessarily, if I believe B* by method M, if B* were false, I would believe B* by method M.

It is worth noting that for this example to work, I must take on two controversial assumptions in the philosophy of language, namely that propositions can refer to themselves, and that

propositions can directly pick out certain state of affairs via indexical terms in such a way that they are not equivalent to other propositions that pick out the same state of affairs in different ways.[15]

## 4 New Argument

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[15] The modification I just presented is not the only way of modifying the argument to accommodate Sensitivity*. Here is a second way of modifying the argument. This modification involves arguing for a somewhat weaker conclusion. In particular, suppose I believe A by method M. Define B** to be: "at least one of the following is true (i) A (ii) I don't believe that A by method M (iii) I don't believe the consequences of A by via deduction from A, which I in turn believe by method M. Then we can offer the following argument:

14. Necessarily, A entails B**. (From definition of B**)

15. Necessarily, if I believe A by method M and believe B** by deduction from A, then if B** were false, I would believe A by method M. (From definition of B**)

16. Necessarily, if I believe A by method M and believe B** by deduction from A, then if B** were false, I would believe the consequences of A via deduction from A. (From definition of B**)

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17. Necessarily, if I believe A by method M, and believe B** by deduction from A then, if B** were false, I would believe A via M and B** by deduction from A. (From 14, 15, 16)

This establishes that, B** cannot sensitively be believed via the following method: believing A by method M and then deducing B** from it. In other words, we have the conclusion that for any proposition believed by some method M, there is a proposition that follows from it that cannot be sensitively* believed via deduction from it without altering the method by which the original proposition is believed.

It is worth noting that using B, we can formulate a new Sensitivity-based skeptical argument. Let Link run as follows:

Link: If S knows that P and P entails Q then it is possible for S to know P.[16]

The argument runs as follows:

18. A entails B. (From definition of B)

19. Necessarily, if B were false, I would believe B. (From previous argument).

20. Necessarily, if S knows that P then S's belief that P is sensitive. (Sensitivity)

21. If S knows that P and P entails Q then it is possible for S to know Q. (Link)

22. I cannot know B (From 19, 20).

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23. I cannot know A. (18, 21, 22)

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[16] One might worry that Link is false because it is possible for there to be a proposition that is entailed by something S believes but such that S cannot grasp this proposition. To fix this, we can modify Link's antecedent to require that S can grasp Q. Thanks to an anonymous referee for pressing me on this.

One can also offer a modified version of this argument for cases in which sensitivity is relativized to methods.[17]

Let us compare this new argument with a more traditional Sensitivity-based skeptical argument. Let E being an everyday proposition, such as that I have hands and a BIV be a brain in a vat being fed experiences as of the real world in a world where E is false. The argument runs:

24. Necessarily, if I were a BIV, I would believe I was not a BIV.

25. Necessarily, if I know P, then my belief that P is sensitive. (Sensitivity).

26. E entails that I am not a BIV. (From definition of BIV)

27. If I know that E and E entails that I am not a BIV, then I can know that I am not a BIV. (From Link)

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28. I do not know E. (From 24, 25, 26, 27)

It is worth noting that my new argument is superior in some respects to the traditional argument. Firstly, my argument arguably yields a more skeptical conclusion. In particular, it targets those propositions that I can falsely believe. However, the traditional skeptical argument arguably does not target all of the propositions that I can falsely believe, but merely those that would be false if

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[17] For the cases discussed in the main text, all that must be done is to modify 19 to be the appropriate conclusion of the previous argument, modify 20 to be the appropriate definition of Sensitivity, and add some stars where necessary.

In the case of the modification discussed in footnote 15, this argument has to be modified a little more. In particular, in order to make it work, we must replace Link with the following principle:

Deductive Link: if S knows that P by method M and P entails Q then it is possible for S to deduce Q from P and thereby come to know Q while still believing P by M.

I were a brain in a vat. For example, many hold that it is possible to be mistaken about some of one's introspective beliefs, such as the belief that there are 37 dots in one's visual field. If this is right then my argument targets this proposition but the traditional argument does not, because if I were a brain in a vat, it would still be true that there were 37 dots in my visual field.[18]

In addition, if we use a definition of "sensitive" on which it is relativized to methods, and modify the arguments accordingly, then the traditional argument has problems regarding premise 24. In particular, in order to make the argument valid, we will have to modify premise 24 to:

24*. Necessarily, if I were a BIV, I would believe I was not a BIV *by the same method I actually use.*

It is worth noting that some people endorse the idea that sensitivity theorists should individuate methods externally, so that perception counts as a different method from vat-perception.[19] If methods are so individuated, then premise 24* will come out as false. This problem will not affect my new argument, so long as the methods by which we form our external-world beliefs are not infallible. That is, premise 19 of my argument, suitably modified, will be either:

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[18] Perhaps Descartes' evil demon hypothesis targets such introspective beliefs. Yet invoking this hypothesis can lead to problems that my argument does not face. For instance, while it is (arguably) physically possible for me to be mistaken that there are 37 dots in my visual field, it is less clear that it is physically possible for an evil demon to be deceiving me. So if one thinks that skeptical hypotheses must be physically possible, then my argument will have an advantage. In any case, this hypothesis will suffer from the second problem I describe below, assuming demon-deception is not the same belief-forming process as perception. Thanks to an anonymous referee for pressing me on this.

[19] For instance, Tim Black, Duncan Pritchard and Timothy Williamson say this, as noted in (Black 2012, 89).

19\*: Necessarily, if I believe B\* by method M, if B\* were false, I would believe B\* by method M. (for the case of Sensitivity\*)

or

19\*\*: Necessarily, if I believe B by method M, if B were false and I formed a belief as to B by method M, I would believe B by method M. (for the case of Sensitivity\*\*)

These premises are plausible, so long as it is possible for me to use the method I actually use and form a false belief that B or B\*.

For instance, suppose that one individuates methods in such a way so that my method of forming a belief that I have hands is perception. Suppose that one thinks that perception is fallible – I can misperceive a hand. Suppose finally that one thinks that brains in vats do not form their beliefs via perception. Then one will reject 24\*, a premise of the traditional argument. But there will be no corresponding premise to reject in my argument.

My new argument is thus important for the internalism/externalism debate and its relationship with skepticism. It provides an example of a skeptical argument that is not global but nonetheless does not merely target external world propositions. And it provides an example of a skeptical argument that one cannot resist merely by individuating methods externally, unless one

is willing to individuate methods in a way so that the methods by which we form our external-world beliefs are infallible.[20]

# References

Alfano, M. (2009). "Sensitivity Theory and the Individuation of Belief-Formation Methods," *Erkenntnis*, 70(2): 271-281.

Becker, K. (2006). "Is Counterfactual Reliabilism Compatible with Higher-Level Knowledge?" *Dialectica,* 60(1): 79-84.

Becker, K. (2012). "Methods and How to Individuate Them," 81-97 in K. Becker and T. Black (ed.), *The Sensitivity Principle in Epistemology*, Cambridge: Cambridge University Press.

Becker, K. and Black, T. (2012). "The Resilience of Sensitivity," 1-8 in K. Becker and T. Black (ed.), *The Sensitivity Principle in Epistemology*, Cambridge: Cambridge University Press.

Bernecker, S. (2012). "Sensitivity, Safety, and Closure," *Acta Analytica.* 274(4): 367-381.

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Black, T. (2002). "A Moorean Response to Brain-in-a-Vat Scepticism," *Australasian Journal of Philosophy*, 80(2): 148-163.

Black, T. and Murphy, P. (2007). "In Defense of Sensitivity," *Synthese*, 154: 53-71.

Cross, T. (2007). "Comments on Vogel," *Philosophical Studies,* 134(1): 89-98.

Goldberg, S. (2012). "Sensitivity From Others," 43-65 in K. Becker and T. Black (ed.), *The Sensitivity Principle in Epistemology*, Cambridge: Cambridge University Press.

Huemer, M. (2001). *Skepticism and the Veil of Perception,* New York: Rowman and Littlefield.

Nozick, R. (1981). *Philosophical Explanations,* Cambridge, Massachusetts: Harvard University Press.

Salerno, J. "Truth Tracking and the Problem of Reflective Knowledge," 78-84 in J. Campbell et. al. (ed.) *Knowledge and Skepticism,* Cambridge, Massachusetts*:* The MIT Press.

Sosa, E. (1999). "How to Defeat Opposition to Moore," *Philosophical Perspectives*, 13: 141-153.

Vogel, J. (2000). "Reliabilism Leveled," *The Journal of Philosophy*, 97(11): 602-23.


Vogel, J. (2007). "Subjuncitivitis," *Philosophical Studies*, 134: 73-88.


Vogel, J. (2012). "The Enduring Problem with Tracking," 122-151 in K. Becker and T. Black

(ed.), *The Sensitivity Principle in Epistemology*, Cambridge: Cambridge University Press.


Williamson, T. (2000). *Knowledge and its Limits,* Oxford: Oxford University Press.