SENSITIVITY AND HIGHER-ORDER KNOWLEDGE

BY

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Abstract: Vogel, Sosa, and Huemer have all argued that sensitivity is incompatible with knowing that you do not believe falsely, therefore the sensitivity condition must be false. I show that this objection misses its mark because it fails to take account of the basis of belief. Moreover, if the objection is modified to account for the basis of belief then it collapses into the more familiar objection that sensitivity is incompatible with closure. (But that is an objection which sensitivity theorists are already prepared to meet, one way or another.)

1. *Introduction*

The sensitivity condition captures an intuitively appealing epistemic principle and there has recently been a resurgence of debate around this topic.[1] In this article I consider an objection to the sensitivity condition which has been levelled on different occasions by Vogel, Sosa, and Huemer: that sensitivity is incompatible with knowing that you do not believe falsely. According to this argument, since we can know that we do not believe falsely, but we cannot believe this sensitively, the sensitivity condition must be false. I argue that this objection misses its mark, since the argument fails to take account of the basis of belief. Moreover, if the objection were modified to account for the basis of belief then it would collapse into the more familiar objection that sensitivity is incompatible with plausible closure principles. But that is an objection which sensitivity theorists are already prepared to meet, one way or another.

Pacific Philosophical Quarterly •• (2016) ••–•• DOI: 10.1111/papq.12164

2. *Sensitivity and its detractors*

Nozick (1981) was the first to clearly formulate the following kind of counterfactual condition on knowledge:

SENSITIVITY: You know that p only if, if p were false, you wouldn't still believe p on the very same basis as you actually do.[2]

The sensitivity condition captures an intuitively appealing epistemic principle. However, fans of the sensitivity condition[3] are outnumbered by its detractors owing to a number of perceived problems (most notably the incompatibility of the condition with plausible closure principles for knowledge).[4]

In this article I will consider one popular and long-standing objection to the sensitivity condition and argue that it does not, in fact, constitute a distinct objection to the sensitivity condition at all (at best, it collapses into the well-worn objection that sensitivity is incompatible with closure). The objection in question has been made repeatedly and forcefully by Vogel (1987, 2000, 2007, 2012), as well as by Sosa (1999, 2002), and by Huemer (2001).[5]

According to this objection, we have reflective higher-order knowledge which is not sensitive, therefore sensitivity cannot be necessary for knowledge. In particular, according to this objection we can know that we do not believe something falsely, even though our belief to that effect is insensitive. Vogel explains the problem with an example. (In what follows, I focus on Vogel's presentation, but the argument carries over to the versions of the objection made by Sosa and Huemer too.)

New Shoes
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.' You know that Omar has new shoes, and that you believe that Omar has new shoes. You also know, if you think about it, that you don't falsely believe that Omar has new shoes. (Vogel, 2000, 2007, 2012.)

Vogel claims that you know in this case that you don't falsely believe that Omar has new shoes *but*, he continues, this belief is not sensitive because if it were false then you would still believe it. After all, he says, if you *did* falsely believe that Omar has new shoes then you would, if you thought about it, still believe that you *didn't* falsely believe that Omar has new shoes.

Vogel takes your belief that you do not falsely believe that Omar has new shoes to amount to the belief that ~(Bp & ~p) (to use his own formalism).[6] And clearly, if that were false, (Bp & ~p) would be the case and so, if you thought about it, you would still believe that you do not falsely believe that p (i.e. you would believe ~(Bp & ~p)) but you would be wrong.

That looks, on the face of it, like a tidy, powerful counterexample to the sensitivity condition. But in fact it is altogether too tidy; it is too simple. Firstly, I will rehearse an argument given separately by both Kelly Becker (2006) and Joe Salerno (2010) which takes issue with Vogel's interpretation of the content of the relevant higher-order knowledge (that you do not falsely believe that Omar has new shoes) as being equivalent to ~(Bp & ~p). I will then argue that even if we allow Vogel his own interpretation of the relevant higher-order belief, his argument does not succeed as an objection to the sensitivity condition because its conclusion does not actually contradict the claim that this higher-order belief is sensitive. To get a conclusion which genuinely contradicts the sensitivity condition, Vogel would have to claim that we know something importantly different (which refers to the basis of the relevant belief) – but we are not at all inclined to think that we *do* know that different thing.

3. Interpreting the relevant knowledge claim

Vogel interprets the claim that you can know that you don't falsely believe that Omar has new shoes as meaning that you know that ~(Bp & ~p). Kelly Becker (2006) and Joe Salerno (2010) both dispute this interpretation. They argue that the claim that you can know that you don't falsely believe that Omar has new shoes should be interpreted as meaning that you know that (Bp & p). Your belief in *this* is sensitive, hence you *can* know that you don't falsely believe that Omar has new shoes according to the sensitivity condition; so there is no counterexample here. They allow Vogel the claim that according to the sensitivity condition we cannot know that ~(Bp & ~p), but think that that does not matter because in taking yourself to know that you don't falsely believe that Omar has new shoes, what is taken to be known is that (Bp & p) (*not*, as Vogel thinks, that ~(Bp & ~p)). Vogel's claim that the belief that ~(Bp & ~p) is insensitive, on the other hand, does not present a threat to the sensitivity condition because we should deny that this is known. Once it is realised that this is not equivalent to the natural language claim that you don't falsely believe that Omar has new shoes, then the view that we *do* know this loses its intuitive support.

In a related spirit, Cross (2007) notes that there are lots of beliefs *similar* to the belief that ~(Bp & ~p) in the neighbourhood, such as the belief that (Bp & p) and the belief that the thing that you believe (in a de re sense) is not false, which can be sensitive and hence *can be* known. Cross then suggests that Vogel's intuition (and anyone else's) that you *can* know that ~(Bp &

~p) might just be the result of ‘intuition leakage’ from all of these related things which *are* known.

These criticisms of Vogel’s interpretation may well be exactly right. In fact, I think that there is good reason to suspect that Vogel’s interpretation of what is known is not quite on the mark. Remember, Vogel thinks that what is known is that ~(Bp & ~p), but notice that this is equivalent to (~Bp *or* p). But the claim that you can know that you don’t falsely believe that Omar has new shoes does not seem to be equivalent to the claim that you know that either you do not believe that p *or* p. The original natural language claim does not seem like it would be true (it at least would not be felicitous) if you did not believe that p. The fact that you believe that p seems to be being taken for granted and the relevant question is whether you believe truly or falsely. Vogel’s interpretation fails to capture that since what he claims to be known would be true if you simply did not believe p. (Becker and Salerno’s alternative, (Bp & p), avoids this problem.)

One potential weakness in this interpretation-disputing line of argument is that Vogel might come back with an alternative motivation for the claim that ~(Bp & ~p) is known. My own argument in Section 3 is much more robust. I will show that even if we leave this issue aside and grant Vogel the assumption that his interpretation of what we take ourselves to know is the right one, the conclusion of his argument, as it stands, does not actually provide a counterexample to the claim that your belief that ~(Bp & ~p) is sensitive. That is, contra the concession made by Becker and Salerno, there is not even any reason to think that the sensitivity condition entails that the kind of higher-order reflective knowledge that Vogel focuses on is beyond our reach.

4. Remembering the basis

Vogel interprets the claim that you can know that you do not falsely believe that Omar has new shoes as meaning that you know that ~(Bp & ~p) and then goes on to argue that your belief to this effect is insensitive. Granting for the sake of argument that Vogel’s interpretation is right (or that whatever ~(Bp & ~p) amounts to in natural language terms, it is something that we know), I will show that Vogel does not actually succeed in showing that a belief to this effect is insensitive.

Vogel argues that if your belief that ~(Bp & ~p) were false then (Bp & ~p) would be the case and under those circumstances, if you thought about it, you would still believe that you do not falsely believe that p, i.e. that ~(Bp & ~p), but you would be wrong. I fully agree with *this* conclusion but it does not actually demonstrate that the belief is *insensitive*.

Recall what sensitivity actually requires: it requires that if p were false, then S would not have believed that p *on the very same basis*.[7] But Vogel's objection makes no mention whatsoever of the *basis* upon which you believe that ~(Bp & ~p). So as it stands Vogel's conclusion just does not get traction on the sensitivity condition. It is ultimately orthogonal to the question of whether your belief is sensitive.

To see this, just notice that, even though Vogel's conclusion stands, your belief that ~(Bp & ~p) actually *is* sensitive in Vogel's example involving Omar and his new shoes. Even though you would believe that ~(Bp & ~p) if, in fact, it were the case that (Bp & ~p), you would not believe it on the same basis as you *actually* believe it. Given that Omar is (according to Vogel) 'a perfectly decent and straightforward sort of fellow' it would not easily have been the case that Omar lied to you or was otherwise mistaken about his shoes (if that might easily have happened then you would not know, in the actual world, that Omar has new shoes). So, if you believed *falsely* that Omar has new shoes then this would have been on some other, less reliable, basis; perhaps that you heard it from some unreliable testifier or perhaps you saw Omar at a distance and mistook his ordinary shoes for new ones. But then, in such a case, your belief that you do not falsely believe that Omar has new shoes, i.e. ~(Bp & ~p), would not be formed on the same basis as it is in the actual world. In the actual world you form that belief on the basis that Omar has told you that he has new shoes (and maybe whatever internal process monitors what beliefs you have, if you think that that is how we get to know what we believe), whereas if you believed *falsely* that ~(Bp & ~p) then you would believe this on some different (less reliable) basis like someone else's testimony or a view of Omar from a distance. (Cross, 2007, makes a very similar point about this case.) So although Vogel is quite right in claiming that you would believe ~(Bp & ~p) even if it were false, this does not show that your belief that ~(Bp & ~p) is insensitive. Your belief in fact *is* sensitive, since if it were false that ~(Bp & ~p) then you would still believe it, but not on the same basis as you actually do.[8]

5. *Does this hit the target?*

One might object at this point that Nozick's formulation of sensitivity requires that *if p were false and one were to use M* (*the method that one actually uses in forming the belief that p*), *then one would not believe that p* (as noted in endnote 2) and that my argument has illicitly shifted the subject by departing from this formulation of sensitivity. The Vogel/Sosa/Huemer objection was that *according to Nozick's formulation of sensitivity* the belief that ~(Bp & ~p) is insensitive. Even if my formulation of sensitivity avoids this problem (and so is an advance on Nozick's) the original Vogel/Sosa/

Huemer line of argument still applies to Nozick (the intended target) because this higher-order belief *is* insensitive on Nozick's formulation. If it were false that ~(Bp & ~p) and you were to use the method of *basing your higher order belief* (*partly*) *on Omar's telling you that he has new shoes*, to judge whether this higher-order belief is true (as you actually do), then you would believe falsely that ~(Bp & ~p).

But note how this claim requires a very implausible interpretation of what it is to apply a 'method of belief formation.' If applying the same method necessarily involves basing one's belief *on the exact same* (*subjective*) *evidence* like this then no belief would ever be sensitive: take anything you believe, if that were false, *but* you formed a belief on the matter on the basis of evidence indiscriminable from your actual evidence (which was somehow still available), you would still believe it. Nozick would just be a sceptic, because this would involve taking sceptical possibilities (cases where you have indiscriminable evidence) seriously in everyday cases.

A more reasonable understanding of Nozick's position understands the application of methods in such a way that the same method can be applied in cases with different evidence. In the case at hand, the relevant method would not be *base your belief on Omar's telling you that he has new shoes*, but something like *if Omar tells you that he has new shoes*, *then base your belief on that* or perhaps *base your belief on what Omar tells* (*or not*) *you about whether his shoes are new.* You can still count as applying this method even if Omar doesn't tell you that he has new shoes and so even if you don't form a belief either way on this basis. When the sensitivity condition is understood in this non-scepticism entailing way, your belief that ~(Bp & ~p) *does* count as sensitive on Nozick's original formulation. If it were false that ~(Bp & ~p) and you were to apply this kind of method, then you would not believe (via this method) that ~(Bp & ~p). Since Omar is 'a perfectly decent and straightforward sort of fellow' he would either have said nothing at all, or else said that his shoes *weren't* new, and either way you would not form the belief that ~(Bp & ~p) via this method.

Of course, given that the world under consideration is necessarily a Bp world, the likelihood is that you would still believe that ~(Bp & ~p). *But* you would not do so on the basis of anything Omar has said about his shoes. Leaving aside all other bases for your belief that p and focussing just on what you would believe on the basis of what Omar tells you about his shoes in this world (since application of this particular method, as used in the actual world, is what Nozick's formulation implies is relevant),[9] you would *not thereby* believe that ~(Bp & ~p) (even if there also happens to be some other method by which you do so believe).

6. *Room for a redux?*

Even though Vogel shows that you would believe still that ~(Bp & ~p) if it were false, he has not shown that this belief is insensitive, because what insensitivity requires is that you would have believed this *on the same basis* even if it were false. But in fact that is *not* true of your belief in the new shoes case; your belief in that case is sensitive.

Taking account of this though, we can see that there is a belief *related to* the belief that ~(Bp & ~p) which perhaps is what Vogel had in mind (in contrast to what he explicitly says) which would *not* be sensitive if it was believed in the kind of way that Vogel has in mind. Namely, the belief that ~(Bp [*on the very same basis as you actually do believe that p*] & ~p). This belief is such that if it were false then you would still believe it *on the same basis* (i.e. on the basis that Omar told you that he has new shoes). Specifying the content of the belief then, we get the belief that ~(Bp [*on the basis that Omar told you that p*] & ~p).

That belief *is* insensitive. However, to provide a counterexample to the sensitivity condition, it also has to be the case that you *know* that ~(Bp [*on the basis that Omar told you that p*] & ~p). But there is no reason to think that you *do* know this in the case Vogel describes. Translated out of the formalism, this would be to say that you know that it is not the case that Omar does not have new shoes but that he has *told you* that he *has*, leading you to falsely believe that he has. In other words, you know that it is not the case that Omar is lying to you, or has forgotten what shoes he is wearing, or misspoke or something.

But this is not the sort of thing that you can know, at least not in the kind of way that Vogel claims that you can when he says that '[y]ou know that Omar has new shoes, and that you believe that Omar has new shoes. You also know, *if you think about it* [my emphasis], that you don't falsely believe that Omar has new shoes.' Vogel claims that you can know this just by reflection on your belief that Omar has new shoes, and your belief that you believe that Omar has new shoes on the basis of his testimony. But *that* is not enough to know that Omar is not lying to you or that he did not misspeak. Perhaps you *do* know those things because you know independently that Omar always tells the truth and never misspeaks, or you could *come to know* that Omar did not lie or misspeak if you checked in some independent way that Omar genuinely does have new shoes (if you checked his bank statement or the CCTV footage of the shoe shop). But in *those* cases your belief would be sensitive. You cannot know it in the way that Vogel suggests, so it is no objection that a belief formed on that kind of basis is insensitive.

At least, intuition dictates that you cannot know that Omar is not lying by inferring this from your belief that Omar claims that he has new shoes and your belief that Omar has new shoes (which is just based on Omar's testimony). This would be parallel to knowing the denials of sceptical hypotheses using Moore's proof of an external world, or other cases of 'easy knowledge.' There are philosophers who maintain that we *can* know these things, but even they admit that this result is counterintuitive. The claim that you can know that ~(Bp [*on the basis that Omar told you that p*] & ~p) in the way that Vogel's case would suggest would be similarly counterintuitive. This would stand in contrast to Vogel's claim that obviously we *do* know that you do not believe falsely that Omar has new shoes, which might seem to suggest that Vogel does not in fact have the interpretation ~(Bp [*on the basis that Omar told you that p*] & ~p) in mind at all, just ~(Bp & ~p), as he explicitly states. But, as we saw, *that* does not provide a counterexample to the sensitivity condition.

Vogel's 'counterexample' is no such thing, as stated, because the belief *is* sensitive. On the other hand, if the belief is beefed-up so as to be genuinely insensitive, there is no intuition that we do know it, so there still does not appear to be a counterexample. At least, there is no counterexample over and above the kinds of counterexample which derive from closure principles which suggest that we have all kinds of easy knowledge, such as knowledge of the denials of sceptical hypotheses. That is far from a straightforward counterexample though since there is an obvious cost to claiming that we can know things like that. Elsewhere, I defend the intuitive view that this kind of 'easy knowledge' is not really knowledge at all. Here, it will suffice to note that the sensitivity condition faces no *additional* problem of higher-order knowledge, over and above the well-rehearsed objection that it is incompatible with plausible closure principles. The higher-order knowledge objection is not the additional novel objection that it has been presumed to be.

7. *Conclusion*

Vogel's counterexample to the sensitivity condition (and in parallel fashion Sosa's and Huemer's) runs into serious difficulties. Firstly, there is reason to doubt that his interpretation of what is known, i.e. that you do not believe falsely that p, is correct.

Secondly, even on his own interpretation he fails to show that this belief is insensitive because he fails to take account of the fact that the *basis* of the belief (or, in Nozick's terms, the *method* of belief formation) affects whether a belief is sensitive.

Thirdly, if we try to take this on board to create an alternative, genuinely insensitive, belief then we end up with a belief which seems just like the kind of thing that we *cannot* know (at least not in the way that Vogel proposes), i.e. to know *that* would be like knowing the denials of sceptical hypotheses or other 'easy knowledge' (a result which I think that we should avoid, but which anyway is indistinguishable from the standard objection that the sensitivity condition is incompatible with closure).

This should give some breathing space to fans of the sensitivity condition, since they tend to either claim to have ways around the incompatibility of sensitivity with closure (e.g. Black and Murphy, DeRose, Roush, Zalabardo) or to think that there are good reasons to reject standard formulations of the closure principle (e.g. Adams, Barker, and Figurelli, Becker, Nozick).

In short: the original objection that sensitivity is incompatible with higher-order knowledge doesn't work because it ignores the basis of belief, but if the argument is amended so that it *does* mention the basis of belief, then it collapses into the standard closure-based objection to sensitivity – an objection which practising sensitivity theorists are already prepared to meet. Either way, this seemingly urgent objection has effectively vanished, which is good news for sensitivity theorists.

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NOTES

1 See references.

2 Note that Nozick talked in terms of 'methods' of belief formation, instead of the basis of belief. I prefer to talk in terms of the basis of belief, but nothing that follows turns on this; one can replace talk of bases with talk of methods as taste dictates. One other difference is that Nozick's formulation requires that *if one were to use method M, then one would not believe that p*. As I show in Section 4, this makes no material difference to my argument either.

3 People who endorse some form of the sensitivity condition include Adams, Barker and Figurelli (2012); Adams and Clarke (2005); Becker (2007, 2009); Black and Murphy (2012); DeRose (1995); Roush (2005); and Zalabardo (2012). For a recent collection of views on the status of the sensitivity condition, see Becker and Black, (eds.) (2012).

4 That is, principles like: 'If S knows that p and knows that p entails q, then S knows that q' or 'If S knows that p and competently deduces q from p, then S thereby knows that q.'

5 In Huemer's book see pp. 184–186.

6 Where Bp stands for 'you believe that p,' p for 'Omar has new shoes,' the tilde for negation, and the ampersand for conjunction.

7 Or, if one prefers, *via the very same method*.

8 There is perhaps also another way in which one could claim that sensitivity is compatible with higher-order knowledge via nothing more than reflection (contra Vogel's claim that sensitivity is incompatible with reflective higher-order knowledge). One could *double check* one's belief: really thinking hard about whether you had seen Omar wearing shoes like that before, thinking if there are plausible explanations as to why Omar's shoes might look fresh and new even if they aren't, etc. At the end of that kind of process it is plausible that one's higher-order belief would be sensitive, because, plausibly, if one had falsely believed that Omar has new shoes, then the belief would not have survived this kind of scrutiny.

[9] The insertion of a 'thereby' into Nozick's formulation would make explicit the reading I give this statement: *if p were false and one were to use M* (*the method that one actually uses in forming the belief that p*), *then one would not* [*thereby*] *believe that p*. (I thank an anonymous referee for pressing me to be clear on this point.)

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