

Skeptical Stories: Introduction to Live Skepticism

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The epistemological consequences of paradox are paradoxical. They can be usefully generated by telling a series of once-upon-a-time stories that make various philosophical points, starting out innocent and ending up, well, paradoxical.

For each story except the first one ask yourself this: does the true belief of the protagonist in the story amount to knowledge?

Near the end of the essay I compare Cartesian and Live Skepticism.

The Homer-Holmes Story

Once upon a time, Homer reads in newspapers that the maid of a famous person has been brutally murdered, the butler is the top suspect, and Sherlock Holmes has been investigating the case for some time now. Then Homer reads that Holmes has announced, "I have done as thorough an investigation as I've ever done, and I'm quite convinced that the butler did it". Homer knows that Holmes has an extremely good track record on these matters.

Homer now has excellent evidence that the butler did it. The interesting thing is the *nature* of his evidence. Like Homer, Holmes has excellent evidence that the butler did it, but his evidence and Homer's evidence are utterly different. Holmes' evidence is things like (a) a bloody knife, (b) a secret note, (c) a receipt for a knife, (d) information about a love triangle, etc. Homer's evidence is just this: (i) Holmes confidently said the butler did it, (ii) Holmes has an excellent track record on these matters, and (iii) there is no special reason to doubt Holmes this time around. Homer's evidence (i)-(iii) is *indirect* whereas Holmes's evidence (a)-(d) is *direct*. Homer doesn't have any of the evidence that Holmes has.

This seems to illustrate the power of *expert testimony*: what you learn about genuine expert opinion concerning some topic should make a difference to what you believe about that topic. If you know that person S is a real expert about matter M, and S offers her opinion on M to you, then you should think that this fact—S's endorsement of M—gives *some* support to M, although of course it is usually not *conclusive* support for M.

The Sean-Senator Story

Once upon a time, Sean was watching television, reading the newspaper, and listening to his sister—all at the same time. The TV and newspapers are saying that Senator Smith is currently in Bigtown. His sister Sara is saying that that's a lie that her colleagues told the media, as Smith is really in Bribetown. Sean knows that his sister is almost always right about these things, as she's been one of Smith's aides for years. Sara is right that Smith's people did try to fool the media.

It seems as though Sean is being foolish in thinking that Smith is in Bigtown: he should believe his sister instead. He knows full well that she's *always* been right about these things, he has no special reason to doubt her this time around, and he knows that senators take bribes all the time. She is an expert on Smith's whereabouts. Think of the Holmes story!

However, what she doesn't know is that the Bribetown meeting was cancelled at the last minute and Smith happens to really be in Bigtown, although the media are reporting his being in Bigtown merely on the reports Smith's aides fed them earlier, when the plan was for Smith to secretly go to Bribetown.

Thus, Sean has an accidentally true belief and he has at least *some* evidence backing it up: the news reports. But he also has some strong evidence *against* his belief, which has three parts: (i) his sister says the reports are false and were generated through deception, (ii) she has always been right about these things, and (iii) he has no reason to think she has screwed up this time. Facts (i)-(iii) are the strong evidence against his belief that makes him seem foolish to believe that Smith is in Bigtown.

Obviously, even if Sean doesn't know that Smith is in Bigtown, other people do know it. Smith for instance.

The Fred-Fir Tree Story

Once upon a time, Fred was walking in the woods with several friends. He saw a tree in the distance. He thought to himself "It is a fir tree". Then a couple seconds later one of his friends asks what kind of tree it is. Another friend responds by saying it's a hemlock; another says it's a spruce; another says it's a fir; another says we're all too far away to tell. Fred knows that each of these people knows *more* than him about trees. Let's say they are experts and Fred is an amateur. He also knows that they are about on a par with each other when it comes to tree knowledge. That is, he has no reason to think that one of them (say the hemlock person) is vastly more knowledgeable about trees than the others.

He sticks with his belief that it's a fir tree. This seems foolish, just like in the Senator story and for similar reasons. It's true that he has some decent evidence for his 'It is a fir' belief: (a) it looks like a fir tree to him, (b) he's no idiot when it comes to trees, even though he's certainly no expert, and (c) an expert agrees with him. But of course he has some excellent evidence *against* his belief: (d) another

equally good expert says it's a hemlock, and (e) yet another equally good expert says it's a spruce. And he has another bit of evidence, one that suggests that everyone should give up their views as to what kind of tree it is: (f) yet another expert says that no one's evidence is sufficient for making a judgment about what kind of tree it is.

Lucky for him, though, it is a fir tree. Thus, he's like Sean in having an accidentally true belief with both supporting evidence and strong contrary evidence.

Obviously, even if Fred doesn't know that it's a fir tree, other people know it. The tree expert who put a small plaque next to the tree that says 'Fir tree' for instance.

The Dinah-Dinosaur Story

Once upon a time, Dinah was a teenager who had heard from books and her elementary school teachers that a huge meteorite wiped out the dinosaurs. At the time she was told the meteor story as a child, say at the age of eight, the scientific community was sharply divided on the issue of what caused the demise of the dinosaurs. Although 30% of scientists accepted the meteor hypothesis, another 30% subscribed to the idea that their death was caused by some enormous solar flare. Yet another 30% thought that it wasn't a solar flare or a meteor but a particularly nasty series of supervolcanos. These latter two classes of dissenters had decent evidence: evidence concerning the sun and supervolcanos that the meteor advocates took seriously. Both the solar flare theorists and the supervolcano theorists were highly respected professors, highly respected by the meteor theorists and at the top of their profession. Whole book series, conferences, and PhD dissertations were devoted to these competing hypotheses. The remaining 10% of the experts insist that the evidence isn't conclusive in any direction and we should withhold belief until more evidence comes in. Suppose further that upon going to her university Dinah found out about the rival and highly respected hypotheses. She didn't understand all the reasons why they were so well respected and endorsed, but she was well aware that they were well respected and frequently endorsed by the experts, even the best among them. She knew all about the 30/30/30/10 breakdown and that the groups of experts are equal in their expertise. Even so, she kept her meteor belief.

Dinah seems foolish in keeping her meteor belief, and the reasons are similar to the ones that make Fred foolish. It's true that Dinah has some decent evidence for her 'It was a meteor' belief: (a) that's what she heard as a kid in science class, (b) she's no idiot when it comes to paleontology, even though she's certainly no expert, and (c) many experts agree with her. But of course she has some excellent evidence against her belief: (d) another equally good group of experts say it's was a solar flare, and (e) yet another equally good group of experts says it was a series of supervolcanos. And she has another bit of evidence, one that suggests that everyone should give up their views as to what the cause of the demise of the dinosaurs was: (f) yet another group of experts say that no one's evidence is sufficient for making a judgment about the cause of the demise of the dinosaurs.

Not so obviously, even if Dinah doesn't know that the meteor idea is correct, other people do know it to be correct. For instance, there could be a super-duper expert Dinah doesn't know about who has recently come across some definitive evidence that settles the matter.

The Julia-Jupiter Story

Once upon a time, Julia came to believe that Jupiter has fewer than 20 moons because that's what she heard when she was in school. However, over the last thirty years evidence has accumulated that there are over 100 moons (pretend). A large number and percentage of the relevant experts have, in mutual independence, come to accept the new theory. She becomes aware of these two facts, about the evidence and resultant expert opinion. Still, she rejects the 'over 100 moons' hypothesis even though she admits the hard truth that the experts have all her evidence and much more. She just thinks that they must have made some mistake, as it seems absurd to her that a planet could have over 100 moons. She is aware of their opinion, their expertise, and their epistemic advantage over herself. And yet she thinks they are wrong? Even though she fully admits that she has no evidence that they lack or have overlooked? Presumably, she'll say in her defense that they just must have made a mistake *somewhere* in digesting the new evidence, although she doesn't know what the new evidence even is or what the mistake might be.

On the face of it, her belief that there are fewer than 20 moons of Jupiter won't amount to knowledge. Her belief might be true of course; the experts aren't infallible. And her belief that there are fewer than 20 moons of Jupiter might have some previously impressive justification, as it was acquired in what we can assume is the usually reliable way of reading reliable science textbooks (but many of the authors of those books have since recanted, so it really doesn't look reliable under that highly relevant description). But given that she is perfectly aware of the large percentage and number of experts who disagree with her, she admits that those experts are her epistemic superiors on the topics in question, and she admits that she has no evidence that they lack, her belief won't amount to knowledge even if it's true.

We can think of exceptions. If there were just a few renegade scientists who thought Jupiter had over 100 moons, and she was aware of a great many other expert scientists who insisted the number was less than 20 even though they were well aware of the renegades' opinion, reasoning, and evidence, then perhaps she could still *know* that Jupiter had fewer than 20 moons even though she *admits* that the renegades are genuine experts and have all the evidence she has as well as much more evidence. She notes that all the other scientific experts think the renegades are wrong and so concludes on that basis that the renegades must have made a mistake somewhere in evaluating the evidence, or they lack some evidence that the other experts have, even though she may not have the slightest idea what the mistake or extra evidence is.

Here is another possible exception. Suppose the 'over 100 moons' hypothesis is based on some new technology that has been proven to work in many areas but is now being applied in an area that it is not suited for. Suppose further that there was no current way the scientists could have foreseen this limitation. Now pretend that communication amongst astronomers in different countries isn't good, so even though there is a large group of astronomers in the UK, say, who are well aware of and perhaps using the new technology (and thus taking the 'over 100 moons' hypothesis very seriously), in the US very few astronomers have even heard of the new technology let alone used it (this scenario isn't realistic today, but that hardly matters). Finally, pretend that Julia is an amateur astronomer in the US who has never heard of the new technology and who believes truly, on the basis of sound evidence, that Jupiter has no more than 20 moons. Under that set of conditions it seems plausible to think that the UK mistake doesn't ruin her chances of knowing that Jupiter has fewer than 20 moons. It's true that she could do nothing to even suggest that there is anything wrong with or inapplicable about the new technology, if she had occasion to learn about it. But the mere fact that some people who she doesn't communicate with have made an error that she could not rectify doesn't seem like an epistemic deficit that could sabotage her knowledge that Jupiter has fewer than 20 moons. Since she is not part of their epistemic community, their mistake doesn't infect her in an epistemic manner. They might as well be aliens with a mistaken methodology; why should their mistake on planet Zorg matter to her epistemic position here on Earth?

It makes sense to draw a distinction between the US and UK amateur astronomers: only the latter knows that there is impressive evidence that Jupiter has well over 20 moons. She knows this because she knows that the top UK astronomers wouldn't become convinced of the 'over 100 moons' hypothesis if they didn't have impressive evidence (again, this is not to say that she thinks the top UK astronomers are infallible or even right on this particular issue). Since the UK amateur knows that there is impressive evidence against her belief, and she has no counter to that evidence, her belief is thereby epistemically diminished. If you're an amateur astronomer in the UK who is familiar with the new technology and knows full well the excellent sociological status among experts of both the soundness of the new technology and the subsequent 'over 100 moons' hypothesis, then it seems that your knowledge is sabotaged.

The Carla-Color Story

Once upon a time, Carla encounters color error theory. According to this theory color is in the mind and not out there in nature. So fire engines aren't red even though we see redness when we look at them. The redness is in our minds, not out there on the fire engines.

Carla knows that over 50% of color scientists are error theorists. She knows that philosophers who know a lot about color (and color science) aren't quite as enthusiastic about color error theory but many accept it. She knows that these color error theorists are genuine experts. Nevertheless, she sticks with her 'Fire engines are red' belief.

Doesn't Carla seem to be in just about the same boat as Dinah or Fred? After all, the comparisons seem apt even if imperfect. It's true that she has some decent evidence for her 'Fire engines are red' belief: (a) that's what she experienced as a kid on many occasions, (b) she's no idiot when it comes to color, even though she's certainly no expert, and (c) many experts (scientists and philosophers) agree with her. But of course she has some excellent evidence against her belief: (d) most scientific color experts say fire engines are not red. And she has another bit of evidence, one that suggests that everyone should give up their views as to the colors of ordinary objects: (e) yet another group of experts say that no one's evidence is sufficient for making a judgment about the colors of ordinary objects.

Not so obviously, even if Carla doesn't know that fire engines are red, other people do know it. For instance, there could be a super-duper expert Carla doesn't know about who has recently come across some definitive arguments that settle the matter or at least show that the color error theorist's arguments all have fatal flaws.

The Ned-Nihilism Story

Once upon a time, Ned encounters compositional nihilism. According to this theory composition never happens. So there are no fire engines or people or mountains or laptops even though there are swarms of particles arranged fire-engine-wise, people-wise, mountain-wise and laptop-wise.

Ned knows that over 50% of experts on composition—all of which are philosophers—are compositional nihilists. He knows that these theorists are genuine experts in the sense of understanding composition as well as anyone. Nevertheless, he sticks with her 'Fire engines exist' belief.

Doesn't Ned seem to be in just about the same boat as Dinah or Fred or Carla? After all, the comparisons seem apt even if imperfect. It's true that he has some decent evidence for his 'Fire engines exist' belief: (a) that's what he experienced as a kid on many occasions, (b) he's no idiot when it comes to composition, even though he's certainly no expert, and (c) many experts (philosophers) agree with him. But of course he has some excellent evidence against his belief: (d) many composition experts say fire engines don't exist. And he has another bit of evidence, one that suggests that everyone should give up their views as to the existence of fire engines: (e) yet another group of experts say that no one's evidence is sufficient for making a judgment about the existence of ordinary objects.

Not so obviously, even if Ned doesn't know that fire engines exist, other people do know it. For instance, there could be a super-duper expert Ned doesn't know about who has recently come across some definitive arguments that settle the matter or *at least* show that the compositional nihilist's arguments all have fatal flaws, so absolutely all the evidence for compositional nihilism has dried up.

One **might** conclude from these stories that we know very little. Just like how Sean, Fred, Dinah, and Julia fail to have knowledge, Carla and Ned also fail to have knowledge. And if Ned in particular fails to know that fire engines exist, it looks like we know very little indeed. Roughly put: we fail to have knowledge when we're aware of expert-based hypotheses that go against our beliefs.

The **Live Skeptic** says this: in such cases either we lack knowledge or even if we still have knowledge, this knowledge is epistemically impoverished compared to bits of knowledge with the same basis but not targeted by any live error theories (such as compositional nihilism and color error theory).

To say that a bit of knowledge is 'epistemically impoverished' I mean that it is of a lower epistemic quality. This is paradoxical because one would have thought that it was incredibly easy for us to know that fire engines exist, that one has ten fingers, etc. In addition, this argument for Live Skepticism is just as strong even if Cartesian skepticism is false. On to the latter....

The Brain-in-a-Vat Story

How can you know that you have ten fingers? After all, you know that: *if you have ten fingers, then you're not a bodiless brain in a vat (BBIV) being fed electrical signals that make it just seem that you're living a normal life with ten fingers, ten toes, etc.* That is, you know that *if P then Q*—where P is the idea that you have ten fingers and Q is the idea that you're not a BIV. Now suppose for the sake of argument you knew that P. That is, suppose for a moment that you knew that you had ten fingers. Well, since you know P and you know that if P then Q, you are in a position to knowingly conclude Q. That is, you can easily put your knowledge of P and your knowledge of if P then Q together to come to know Q. Thus, you know Q: you know that you're not a BIV.

That is, if you know P and you know that if P then Q, you can know Q.

But that seems impossible: it seems impossible that you could know that you're not a brain in a vat being fed electrical signals that make it seem as though you are living a normal life with ten fingers, ten toes, etc. That is, it seems impossible to know Q. After all, what evidence do you have? Well, you *seem* to see and feel and control parts of your body other than your brain. But you'd have exactly those experiences even if you had nothing other than a brain: the mad scientists controlling your brain are feeding you electrical signals so that you will have the sensory experiences of someone with a real body.

The Cartesian skeptic's argument:

1. For any P and Q, if you know P and you know that if P then Q, you can know Q.

2. Thus, if you know you have 10 fingers and you know that if you have ten fingers then you're not a BBIV, you can know that you're not a BBIV. (I just let P = 'You have 10 fingers' and Q = 'You're not a BBIV'.)
3. You definitely do know that *if* you have 10 fingers *then* you aren't a BBIV. (After all, a BBIV by stipulative definition has no fingers; it's a simple, necessary logical truth that anything with fingers isn't a BBIV.)
4. Now suppose for the sake of argument that you know you have 10 fingers.
5. So, by 2-4 you can know that you're not a BBIV.
6. But that's impossible: you can't know that you're not a BBIV.
7. Thus, our assumption in 4 must be mistaken: you don't know you have 10 fingers.

*That's just the briefest introduction to Cartesian Skepticism (so named because it comes from considerations that Descartes made famous, although he was no skeptic and other philosophers before him discussed aspects of the argument). But note something interesting about this case. You believe P (that you have ten fingers). The skeptic says you don't know that P is true because, roughly put, you don't have any evidence that rules out the BBIV possibility. Now one response to the Cartesian Skeptic would be to say that there is no need to rule out the BBIV possibility because there is no evidence **for** it. Even the skeptic agrees that there is no evidence for the BIV hypothesis; she doesn't think there are any BBIVs either.*

*Now if there were good evidence **for** the BBIV possibility, well then you would need evidence that rules it out in order to know P. But since there isn't any evidence for the BBIV possibility, you don't need to have any evidence that rules it out in order to know that you have ten fingers. You need to rule out possibilities inconsistent with your belief only if there is good evidence in support of them.*

That's a crucial difference between Live Skepticism and Cartesian Skepticism. In both cases you believe P (you believe you have ten fingers) and there is a hypothesis that goes against P (the BBIV scenario, the thesis of compositional nihilism). But the difference is that in the case of Live Skepticism there is good reason to think that the alternative hypothesis is really true! That's why it's a serious threat to your 'ten fingers' belief even though the BBIV idea is no real threat to your 'ten fingers' belief.