

Handout for Lecture 2: What is Knowledge? And Do We Have Any?

Hi, my name is Duncan Pritchard. I am a Professor of Philosophy here at The University of Edinburgh. What I'm going to be talking to you about this week is knowledge. Over the first two parts of the lecture I'll be talking to you about the **nature of knowledge - what is knowledge?** Specifically, in the first part of the lecture I'll be concerned with the **basic constituents of knowledge**, and in the second part with a problem, commonly called the **Gettier Problem**, for the **classical account of knowledge**. In the third part of the lecture I'm going to be talking about whether we have as much knowledge as we think we have. In particular I'm going to be introducing you to the problem of **radical skepticism**, which is the view - in its most extreme form - that we don't know anything at all.

1. The Basic Constituents of Knowledge

We live in an information age. The very fact that you're taking this Massive Open Online Course, this MOOC, is evidence of the fact that information is available to us in a way that it has never been before in human history. And that's a great thing, it's great that there's so much information readily available to the vast majority of the people in the world.

But merely *having* lots of information available to you isn't in itself a good thing unless you know **which is the good information and which is the bad information**, which is the useful information and which is the useless information. And that's when knowledge becomes extremely important. So it's crucial to us to understand both what knowledge is and also to assure ourselves that we have as much knowledge as we think we do.

Propositional versus ability knowledge

To make things a little bit more manageable we are going to make a simplifying assumption here. We're just going to focus on a particular *kind* of knowledge: **propositional knowledge**, which is knowledge that a certain proposition is the case. A **proposition** is what is expressed by a **declarative** sentence, i.e., a sentence that declares that something is the case. For example, the sentence 'The cat is on the mat' is a declarative sentence, because it declares something that may or may not be the case. In this way it can either be true or false. That is, if the cat is *actually* sitting on the mat, then that sentence will be true; if the cat is *not* sitting on the mat, but instead

on top of the radiator, then that sentence will be false. Contrast the sentence 'The cat is on the mat' with the sentence 'Shut that door.' 'Shut that door' is not a declarative sentence, because it cannot be true or false - it doesn't declare something to be the case.

Propositional knowledge is often contrasted with **ability knowledge**, or know-how. Examples of propositional knowledge, or knowledge-that as it is known, are things like:

Knowing that Paris is the capital of France.

Knowing that the earth orbits the sun.

Knowing that one has a toothache.

In contrast, examples of ability knowledge, or know-how, are such things as:

Knowing how to ride a bicycle.

Knowing how to play the piano.

Knowing how to beat the stock market.

It's a very interesting question how knowledge-that and knowledge-how interrelate, but we're not going to get into that question today. We're just going to focus in on knowledge-that.

Two conditions for propositional knowledge

Most people agree that there are two key ingredients in knowledge-that. In particular:

1. If you know that something is the case, then what it is that you know has to actually be the case. This is the **truth condition**. So if you know that Paris is the capital of France, then Paris has to be the capital of France. It has to be true that Paris is the capital of France. So if in the last few hours unbeknownst to me there has been some edict issued which makes Marseille the capital of France, well then I no longer know that Paris is the capital of France because it is no longer true that Paris is the capital of France. **Knowledge requires truth.** (As the example makes clear, a corollary of this condition is that you cannot know a falsehood, even if you think you know it. We're interested in when you *actually* know something, as opposed to when you *merely think* that you know something.)
2. Knowledge also requires **belief**. That is, it also requires you to believe the proposition which is known. So unless I believe that Paris is the capital of France I'm not even in the market for knowledge. Knowledge is a relationship between a person and a fact and the relationship is at root one of belief. If

you believe that something is the case and it is the case, then that puts you in the market for knowledge. It should be noted that we often *contrast* belief and knowledge, as, for example, when someone says "I don't just believe that Paris is the capital of France, I know that Paris is the capital of France." But this doesn't mean that belief in a proposition is different in kind from knowledge of that proposition. This just means that we don't *merely* believe some proposition, but that we *also* take ourselves to know that proposition, and this is indicative of the fact that a knowledge claim is stronger than a belief claim. All of which is, of course, perfectly compatible with the idea that knowledge *at the very least* requires belief.

Also note that, by any normal standard, knowledge *doesn't* require **infallibility** or **certainty**. It is compatible with your knowing that Paris is the capital of France that you are not sure that you know that Paris is the capital of France. So long as you haven't made a mistake in coming to know that Paris is the capital of France, then whilst you could possibly be in error about the truth of this proposition, and so may not be *sure that you know* that Paris is the capital of France, you still *know* that Paris is the capital of France.

Furthermore, when we talk about knowledge of a proposition we mean just that. We do not mean knowledge that a proposition is likely to be true. Propositional knowledge concerns something that either is or is not the case, it does not concern whether something is likely or unlikely to be the case. Your claim that Paris is the capital of France is stronger than your claim that Paris is likely to be the capital of France. Of course on occasion we do want to **qualify** or **hedge** our knowledge claims, perhaps because we are unsure of their truth, but we are still concerned with their *actual* truth, and not whether it is *likely* that they are true.

Knowing versus getting it right

There's clearly a lot **more to knowing than simply getting it right**. That is, there's more to knowing than just having a true belief. You can acquire true beliefs in all kinds of random and haphazard ways. That by itself won't guarantee you knowledge.

Imagine two jurors. They both believe that a certain person is guilty of the crime. But in one case a juror believes it simply out of prejudice: they haven't looked at the evidence, they've just formed a gut reaction against someone on the basis of prejudice that they're guilty. Now imagine the second juror who believes the person's guilty but believes that they're guilty because they've actually looked at all the evidence and weighed it up and they've worked out that this person has to be the culprit. The juror

who bases his belief on prejudice clearly doesn't know: it's just random that he's got things right, and so he's chanced on the truth. The juror that's actually done the work of weighing up all the evidence, he does know. So knowing is getting to the truth in the **right kind of way**.

There are various intuitions that are being elicited here about the nature of knowledge. I'm going to mention two of them. They may well amount to the same thing, they may be two sides of the same coin.

1. The first intuition is sometimes called the **anti-luck intuition**. It's that when you know, it is not a random matter that you get things right. It's **not a matter of luck that you get things right**. The juror that believes that the defendant is guilty based on prejudice - it is just a matter of luck that he gets it right. The juror that bases his belief on evidence - it is not a matter of luck that he got things right, it's because he formed his belief in the right kind of way and that's *why* he has got a true belief.
2. The second is the **ability intuition**. It's that when you know, you **get to the truth through your abilities**. So think of our juror who has sifted through the evidence. He had abilities that he brought to bear which got him to the truth. Unlike the juror that formed his belief based on prejudice: his abilities didn't play any role in getting to the truth.

2. The Classical Account of Knowledge and the Gettier Problem

So we need to add something to true belief to get knowledge in order to accommodate these intuitions about knowledge: that knowledge is getting things right in a way that's not lucky and that knowledge requires ability on the part of the subject. The classical answer to the question of what you need to add to true belief to get knowledge is **justification**. This is the so-called **classical account of knowledge**, or sometimes called the tripartite or three-part account of knowledge. It goes right back to antiquity, back to Plato. The idea is that when you know you satisfy three conditions:

1. You have a **belief**.
2. The belief is **true**.
3. And you have a **justification** for that belief, where this means that you can offer good reasons in support of why you believe what you do.

Think about our two jurors again. The juror who forms his belief simply on the basis of prejudice - he has no good reasons that he can offer in support of what he believes. In contrast, our juror who sifted through the evidence and has come to appropriate

conclusions that this person must be guilty - he can offer all kinds of good reasons in support of his belief. He is justified in believing as he does.

So notice that this fits with the two intuitions. Consider the anti-luck intuition first: if you know, then your true belief isn't a matter of luck. Well if you've got a justification or good reasons for your belief, then clearly you got to the truth in this instance in the right kind of way, i.e., not by luck. Now consider the ability intuition: if you know, then your true belief is down to your abilities in some significant way. Well if you've got a justification or good reasons for your belief, then where did they come from if they *weren't* derived from your cognitive abilities? Think of the juror who sifted through all the evidence in forming his belief: he used his cognitive abilities in sifting through all that evidence.

Gettier counterexamples

Until quite recently, until the mid-1960s, most people thought this was the right way to think about knowledge: knowledge is just justified true belief. However, in 1963 a man called Edmund Gettier published a paper about two-and-a-half pages long - a very, very short paper - in which he showed pretty much convincingly (just about everyone agrees now) that **knowledge cannot be merely justified true belief. It simply is not possible.**

He gave a series of examples in which we've got a subject who forms a true belief, and they have a good justification in support of what they believe, but where nonetheless it is just a **matter of luck that their belief is true**. These are so-called "Gettier-style" examples, and I'm going to introduce you to a few of them today. If these examples are right - and most people think they are - then it follows that there must be more to knowing than simply having a justified true belief. And that prompts a puzzle because if that is true, **then what is knowledge if it is not justified true belief?**

A Gettier-style case

I'm going to focus in on two examples (neither of which were offered by Gettier himself). The first example is the example of the stopped clock, and it's adapted from an example originally offered by Bertrand Russell.

Imagine someone who forms their belief every morning about what the time is by looking at the grandfather clock in their hallway. It has never let them down; it is a very reliable clock. Suppose they come downstairs one morning, they see that the clock

is saying that it is 07:30, let's say. They form the belief that it is 07:30 and that belief is true. So they believe that it is 07:30 in the morning and it is 07:30 in the morning. But now suppose that unbeknownst to them the clock stopped twenty-four hours earlier. So they've got a belief, the belief is true - it is 07:30, they just happened to look at the clock at the one time in the day when it is showing the correct time - and they've got a good justification for their belief. After all, that's what the clock shows, the clock is a reliable clock, it has never let them down before. And indeed they've got independent reasons for thinking that the time is roughly 07:30: they've just woken up, they wake up at roughly that time every morning. So they've got a justified true belief, but surely you can't come to know what the time is by looking at a stopped clock? And the problem here is that it is just a matter of luck that you happened to chance upon the truth in this case. If you had looked at the clock a minute earlier or a minute later then you would have ended up with a false belief. You can't come to know what the time is by looking at a stopped clock. So you've got justified true belief but it's just a matter of luck that your belief is true, so it doesn't count as knowing.

Another Gettier-style case

Here is another case. This is the sheep case, which is due to an American philosopher called Roderick Chisholm.

This case involves a farmer. He is in a field, he looks across into another field, and he sees what looks very much like a sheep. So he forms the belief that there's a sheep in the other field. But what he's looking at isn't a sheep. He's looking at, let's say, a big hairy dog: something that looks very much like a sheep but which isn't a sheep. However, there is a sheep in the other field, it's just that the sheep in that field is not what he's looking at. There's a sheep in the other field hidden from view behind the big hairy dog that he is looking at. So here's the question: does he know that there is a sheep in the other field? Well, if the classical account were right it would seem that we have to say that he does know. After all, he believes there's a sheep in the other field, and there is a sheep in that field, and he has excellent reasons for believing there is a sheep in that field: he's a farmer, he can see what looks very much like a sheep in clear view. So he has excellent reasons for thinking that there is a sheep in the other field. But intuitively he doesn't know there's a sheep in the other field, because what he's looking at isn't a sheep. What he's looking at is a sheep-shaped object which is obscuring the genuine sheep hidden behind. So again what you've got here is an example where you have a justified true belief but where nonetheless it's just a matter of luck

that the belief is true. It's only because there happens to be, hidden from view, a genuine sheep behind the sheep-shaped object that he's looking at, the big hairy dog, that the farmer happens to have a true belief. So, again, the farmer has a justified true belief that's just a matter of luck.

Responding to Gettier-style cases

One way of responding to Gettier-style cases is to try and criticise the cases themselves. For example, does the farmer really believe that there is a sheep in the other field, or does he perhaps believe, say, that that thing over there is a sheep? This latter belief would be outright false, since that thing over there is actually a big hairy dog, and so the case of justified true belief which was entirely down to luck would be avoided.

However, whilst fancy footwork like this seems to work on a case-by-case basis, or even in regards to certain kinds of Gettier-style cases, this is not a good universal strategy for eluding them. For there is a **general formula** for inventing Gettier-style cases, and if a problem is found with a particular case, or even a particular kind of case, then we can just go back to this formula and create a new one.

A formula for inventing Gettier-style cases

There's a general formula to constructing a Gettier-style case. What you do is you take a belief which is justified but where ordinarily even though it is justified, the belief would be false. Think about the sheep case. Ordinarily if you're forming your belief that there is a sheep in the field by looking at a big hairy dog, although you're justified you'd end up with a false belief because you're not looking at a sheep.

But now what you do is you just add whatever detail you need to add to the example to make the belief true nonetheless, even though the truth of the belief has got nothing to do with the justification. So in the sheep case, you just make it that there is a sheep hidden from view behind the sheep-shaped object that the farmer's looking at.

You can try this same formula with the stopped clock case. Normally, looking at a stopped clock would give you justification but it wouldn't give you truth. That is, you'd have good reasons for believing what you do, and hence justification, but your belief would be false (because stopped clocks are not reliable ways of finding out the time). But we can just set up the case so that you happened to look at the clock at the one

time of the day when it gives you a true belief. And then you've got justified belief and you've got truth, but you've not got knowledge (because you've been Gettiered).

Patching up the classical account - no false lemmas

So how do we deal with Gettier-style cases? If knowledge isn't justified true belief then what is it? Part of the difficulty here is that it's not as if there's a simple patch that one can add to the justified true belief account of knowledge in order to deal with Gettier-style cases. In the immediate aftermath of Gettier's article a lot of people tried this. They tried adding some extra condition to the justified true belief account in order to solve the Gettier problem. But actually all these proposals have actually foundered. **There isn't a simple fix.**

For example, here is a fix that someone called Keith Lehrer, along with various other people, have proposed: maybe what you need to add to the classical account - the justified true belief account - is a fourth condition which says that the subject isn't basing their belief on any false assumptions. So, on this view, knowledge would involve truth, belief, justification and also a further fourth condition that there be **no false assumptions** - or **lemmas** as they're sometimes called - in play.

This might work for some Gettier-style cases. It might work for the stopped clock case for example. You might think that there is an assumption in play when you form a belief by looking at a clock that the clock is working. And if you think that's an assumption in play when you're forming a belief about the time, then the falsity of this assumption would explain why you lacked knowledge in the 'stopped clock' case (even though you had a justified true belief). But in lots of other Gettier-style cases it's not clear at all that there are any false assumptions in play. Think about the sheep case. The farmer simply forms a belief that there's a sheep in the field because that's what he sees. There are not obviously any assumptions in play, and if there are no assumptions in play then there are no assumptions that can be false.

More specifically, the problem with the no false lemmas proposal is that we need to be given a principled way of understanding what an assumption or lemma amounts to in this context, and this is particularly tricky. We don't want a way of thinking about assumptions that is so broad that it excludes genuine cases of knowledge from being known, but we also don't want a way of thinking about assumptions which is too narrow, and so which fails to exclude Gettier-style cases.

A narrow way of thinking about assumptions might be something along the lines of taking an assumption to be something that you're actively thinking about in forming your

beliefs, e.g., your belief that the stopped clock is actually working. But do you really go through a process of reasoning that takes such a belief into account when you tell the time from a clock? Indeed, assuming that the clock you're using to tell the time is normally reliable, why would you *need* to go through a process of reasoning that takes such a belief into account when you tell the time from it? So it doesn't seem as though such a narrow way of thinking about assumptions does what it's meant to do and exclude Gettier-style cases.

A broader way of thinking about assumptions might be something along the lines of taking an assumption to be a belief that you have that is in some sense germane to the target belief in the Gettier-style case. On such a way of thinking about assumptions the no false lemmas proposal would seem to get the right result in Gettier-style cases. Consider the 'stopped clock' case again. Even though it's not working in this instance, you probably do have a false belief that the clock is working when you tell the time from it, even if you don't use that belief to reason to your belief that it's 07:30 in the morning (the target belief). But if we think about assumptions in this broad way, then some genuine cases of knowledge will be excluded too, because in many instances you probably will have a false belief which is germane to the target belief. So it doesn't seem as though such a broad way of thinking about assumptions does what it's meant to do either, except in this case this is because it excludes genuine cases of knowledge.

So we encounter a difficulty here. Gettier-style cases show us that knowledge isn't justified true belief. But if knowledge isn't justified true belief, what is it? Indeed, the Gettier problem raises two interesting questions about the nature of knowledge. The overarching question it raises is what is knowledge if it's not justified true belief? You can break that into some more specific questions it raises.

1. We've been assuming all the way through this that justification is at least necessary for knowledge. That is, that justification is part of what it is to have knowledge. But given that we've rejected the idea that knowledge is justified true belief maybe we should question that. Maybe we should start to **ask whether knowledge is true belief plus something very different to justification.**
2. And this goes back to a further issue: remember we talked about the anti-luck intuition, i.e., that when you know you are getting things right in a way that is not a matter of luck. We thought that justification, having a justified belief, was a way of excluding that kind of luck. When you have a justified belief, then when you get things right it's not a matter of luck that you get things right. Gettier-style cases show us that this is not the case. You can have justification, and you

can have true belief, and yet it can still be a matter of luck that you've got a true belief. So that raises the question **what is it then that excludes that kind of luck?** What is it that we need to add to true belief to exclude that kind of luck, if it's not justification?

So here are the conclusions to Part Two. We've been looking at the nature of knowledge and in essence we've drawn three conclusions:

1. The first is that **knowledge isn't justified true belief**. We thought it was, it looked very plausible that it might be, but the moral of the Gettier-style cases is that it can't be because you can have justified true belief and yet your true belief can simply be a matter of luck. And you don't get to knowledge through luck.
2. The second conclusion is that **it's not obvious that you can simply add something to the justified true belief account of knowledge to solve the problem**. It's not as if there's just some obvious way of adding an extra condition to the classical account to make it avoid Gettier-style cases.
3. That leads us to a third and quite profound conclusion, which is that therefore **it's not that obvious what knowledge is**.

3. Do We Have Any Knowledge?

In Part Three of the lecture I'm going to be talking to you about whether or not we have as much knowledge as we think we have. And in particular I'm going to be talking to you about the problem of **radical scepticism**.

Radical scepticism

Radical scepticism is the view that **we don't know nearly as much as we think we do**. And in fact in its most extreme form, radical scepticism the view that **knowledge is impossible**, we don't know anything and we couldn't know anything. We think we know lot of things, but actually we know next to nothing, or even nothing. Now there is a very influential form of radical scepticism which goes back at least to Descartes (1596—1650), and on some accounts even to the ancients, in which the conclusion that we know very little, or nothing at all, is motivated by appeal to what are known as **sceptical hypotheses**. These are scenarios which are indistinguishable from normal life but where we're radically in error. And what the sceptic says is "Look, given that these scenarios are indistinguishable from normal life, you can't possibly say that they don't obtain. You can't possibly rule them out. But insofar as you can't rule them out, well

then you can't possibly know anything about your normal life either, because of course, for all you know, you could be a victim of the sceptical hypothesis."

The brain-in-a-vat sceptical argument

The example of a sceptical hypothesis we're going to look at is what's known as the brain-in-a-vat sceptical hypothesis. It's a bit like the scenario depicted in *The Matrix*, if you've seen that film.

The idea is that you think that you're out in the world interacting with people around you, that you're talking to people, walking about in your environment and interacting with your environment. But in fact none of that is taking place. In fact your brain has been harvested; it has been taken out of your skull and it has been put in a vat of nutrients and it is being fed experiences, fake experiences. The brain-in-a-vat is floating around there and it thinks that it is out in the world interacting with other people, it thinks that it's seeing things and doing things, but in fact nothing of the sort is taking place.

Brains-in-vats and everyday knowledge

The brain-in-a-vat has **radically false beliefs**. And **yet their experiences are indistinguishable from the experiences we're having right now**, which one would hope aren't brain-in-a-vat-type experiences. One would hope that I really am here and I really am interacting with my environment, that I'm not a brain-in-a-vat.

So here's the question the sceptic asks. They say "How do you know you're not a brain-in-a-vat?" And of course the answer to that is "Well probably we don't." What could we possibly do to rule out the possibility that we're a brain-in-a-vat? Everything that we experience right now is consistent with us being a brain-in-a-vat. So it wouldn't do, for example, to answer "I can see that I've got hands; brains-in-vats don't have hands; so therefore I'm not a brain-in-a-vat." Because of course the brain-in-a-vat, when he looks down for his hands he sees hands too. It's just what he's seeing aren't real hands. They're just images created by the computers in his experiences.

Now we might ask why the fact that we can't rule out such far-fetched sceptical hypotheses as that we're a brain-in-a-vat is so problematic for our having knowledge. But here's the problem: insofar as we can't rule out that we're a brain-in-a-vat, how then can we know that we have hands right now? What basis do we have for thinking that we have hands right now? Presumably we can see them, feel them, etc., but of course if we were a brain-in-a-vat this would also be the case. But having hands is

inconsistent with being a brain-in-a-vat, so how can we know that we have hands and yet be unable to rule out that we are a brain-in-a-vat?

In other words, the radical sceptic is arguing in the following way:

1. I can't know that I'm not a brain-in-a-vat;
2. If I don't know that I'm not a brain-in-a-vat, then I don't know very much, if anything;
3. Therefore, I don't know very much, if anything.

Notice that the sceptic is *not* arguing that you *are* a brain-in-a-vat, or that anything so far-fetched actually obtains, he is just saying that if you can't rule such possibilities out, then you can't know very much, if anything.

"So if we can't rule out the sceptical scenario", the sceptic concludes "**Well then how do you know anything about your environment? How can it be that you know you've got hands if you can't rule out the possibility that you're a *handless* brain-in-a-vat?**" This is a real puzzle. And it's actually not altogether obvious how we should resolve it. One way to resolve it would be to say that we can know we're not brains in vats, but then we have to tell some story about how that is the case, given that we can't tell the difference between normal experience and the experience of being a brain-in-a-vat. But what other evidence could we appeal to over and above our normal experience to tell such a story? It appears to be the case that, as soon as we concede that the experience of being a brain-in-a-vat is indistinguishable from our normal experience, we can't tell such a story.

Another way in which we might try to respond to the radical sceptic is to say that there is a trick going on here, some sort of **raising of the standards for knowledge**. Perhaps the sceptic is using a very high standard of evidence for knowledge, a standard which would demand that we should rule out the possibility that we are a brain-in-a-vat, and so, since we can't rule out that possibility, then we do not have knowledge to such a high standard. But that's OK, one might counter, since normally we don't think that knowledge requires such a high standard - remember how we don't normally think that infallibility of certainty is required for knowledge.

Yet the sceptic doesn't seem to be appealing to such a high standard for knowledge to motivate his scepticism. If the sceptical argument goes through, it goes through at any standard for knowledge. Consider your knowledge that you have hands. The sceptic is not saying that, if you can't rule out the brain-in-a-vat hypothesis, then you might have *some* reason to believe that you have hands, but it's just that that reason is not

enough if we take knowledge to require a high standard of evidence. The sceptic is saying that you have *no* reason at all to believe that you have hands if you can't rule out the brain-in-a-vat hypothesis. All the reasons you might plausibly offer for your knowing that you have hands are compatible with your being a brain-in-a-vat.

Epistemic vertigo

Many other responses to this sceptical problem have been proposed, however it is certainly not amenable to an easy solution, if it is amenable to a solution at all. Indeed, perhaps another way to think about this is to say that the radical sceptic might be on to something. Once we try to step outside of our normal life, where we're not thinking about sceptical hypotheses, and we're just offering reasons and thinking through the beliefs that we have in a very **localised** way, and start to reflect in a **general** way on the nature of our epistemic position, then perhaps what the sceptic is prompting us to discover is that we don't have such a grip on the truth or on reality as we thought we did.

This prompts a certain kind of feeling of what elsewhere I've called **epistemic vertigo**. When you start to reflect on the nature of knowledge, when you start to, as it were, "ascend" into a reflective mode of thought and start to think about what knowledge is and what is the extent of our knowledge, it **ceases to become all that obvious that we really do have as much knowledge as we think we do**. And this is the problem of scepticism.

Here are our conclusions to Part Three:

1. We've looked at the problem of **radical scepticism, which is the view that we don't know nearly as much about the world around us as we think we do**. In fact, it's the view in its most extreme form that maybe we don't know anything at all.
2. We've seen that radical scepticism makes essential use of **radical sceptical hypotheses, which are scenarios which are indistinguishable from normal life but where we're radically in error**.
3. And we've seen that if we are **genuinely unable to rule out the sceptical hypotheses then the sceptic seems to be right in saying that it's not altogether obvious how it is that we can know what we think we know about our environment**. That is, the sceptical argument starts to look quite compelling.

If you'd like to learn more about the theory of knowledge then I explore these issues in greater detail in my introductory textbook, which is called *What is this thing called knowledge?* (published by Routledge).