From *Epistemology: A Beginner's Guide*, by Robert M. Martin

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Strength of belief and evidence

Strength of belief

Suppose Charlie hears the phone ring, and says, 'I believe that's Lucy phoning.' Then suppose he said instead, 'I know that's Lucy phoning.' Why say one rather than the other? What's the difference? What would lead Charlie to say that he knows p, rather than merely that he believes it?

You might say that Charlie believes that it's Lucy phoning, not that he knows it, because *you* think it's false that Lucy is on the phone. But that couldn't be the reason why Charlie would say one rather than the other. (He wouldn't say either that he knows it or that he believes it, if he thought it was false.)

Maybe the difference is the strength of Charlie's belief. We'd expect Charlie to say 'I believe it's Lucy phoning' when he sort of thinks it's Lucy phoning, but he wouldn't be willing to bet a whole lot of money on it. He thinks it's likely to be her, but he feels that he stands a chance of being wrong. He'd say 'I know that it's Lucy phoning' instead if he were very confident that it's Lucy phoning. In general, then, according to this suggestion, you say, 'I know' when your belief is quite strong, but 'I believe' when it's weaker. Maybe, then, we should add as a condition for the truth of *S knows that p* that *S is quite confident of p*: when S is less confident about p, S doesn't know that p. S merely believes that p. This might explain why Charlie said one of these rather than the other.

An influential, fairly recent analysis of knowledge is one by the English philosopher A. J. Ayer. He argues that 'being completely sure' is necessary for knowledge:

> It is indeed true that one is not reasonably said to know a fact unless one is completely sure of it. This is one of the distinctions between knowledge and belief ... But, whereas it is possible to believe what one is not completely sure of, so that one can consistently admit that what one believes to be true may nevertheless be false, this does not apply to knowledge.

One thing you might find puzzling here is how Ayer can say that S cannot consistently claim to know something – that is, be sure of it – while admitting that p *may be* false. He argues that (just about) anything one believes has the logical possibility of being false; so everyone should admit that error is possible, no matter how sure of p. If you're really sure that p you feel that there's no *genuine* doubt, no *practical likelihood*, of your being wrong.

A. J. Ayer (1910–89) was among the best known philosophers in Britain – a radio and TV personality, and a public champion of various political causes. He's known philosophically for his definitive statement of logical positivism, the doctrine that the meaning of any statement is nothing but the sense-experiences that would show that it's true; and that, consequently, a great deal of what's said in religion, ethics, and philosophy in general is without any meaning at all.

Is *strong* belief necessary?

To test this idea, we should examine cases in which S's belief is not strong, but it seems that he or she might be credited with knowledge anyway. Here's one:

Howard has memorized the capitals of all the countries of Europe in preparation for his school geography class. He gets nervous and full of self-doubt when he's called on in class to answer a question, and when his teacher asks him what the capital of Slovakia is, he feels like all that memorized information is evaporating. He hesitantly and doubtfully mumbles 'Bratislava?' His teacher asks, 'Do you believe that's the capital?' He replies, 'Well, yes, I guess so.' 'But,' continues the teacher, 'do you *know* that that's the capital?' He says, 'Well, er, no, not really.' In fact, he's got it right, and his belief is well founded: the source of his information is a reliable map he studied in the textbook, and his memory is good. He deserves to be sure that he's right – but he's not at all sure.

Does Howard *know* that the capital of Slovakia is Bratislava? Some philosophers agree with Ayer that he doesn't, and think that confidence is a necessary condition for knowledge. But others disagree, and would react to this story by saying that despite Howard's distrust of his memory, it really is working fine, and he knows what the capital is despite the fact that he thinks he doesn't.

The picture of knowledge given by this second point of view is that S's true belief that p counts as knowledge if S *should* feel sure about p – never mind whether S feels secure or not. Ayer thinks that *both* feeling secure *and* being entitled to feel secure are necessary. According to him, if you don't feel secure in a belief, then you don't know it; and even if you feel secure, if you don't deserve to feel secure, then you don't know it.

We can ask two questions here. First: is feeling secure really necessary? Then second: is deserving to be secure necessary? But this raises a third question: When do we

deserve to feel secure in a belief? When, in other words, is a belief really *justified*?

Justification

What is justification? Well, this is a good question; various complicated answers have been proposed, and there is a good deal of controversy about which answer is right. We'll be working through these controversies as we proceed, but for the moment, you can think of the justification of a belief as what makes it reasonable to believe, what makes a belief secure. My justification for my belief that it's snowing out is that I've just looked out the window and seen the snow. For my belief that I sent Mildred an email this morning, that I remember doing it. For my belief that my sister just bought a new car, that she told me she did. For my belief that the Olympic bobsledding final is on TV tonight, that I read it in the newspaper. For Howard's belief that Bratislava is the capital of Slovakia, that his memory is trustworthy, and that he can remember that a reliable source of information told him this. For my belief that there exist giant clams that can weigh several hundred pounds – well, I don't remember what the basis for that belief was, but I think it must have been a reliable one.

You can see how strength of belief and strength of justification are closely connected. Ideally, the strength of someone's belief is closely correlated with how well justified that belief is. But sometimes it's not. Howard's belief is well justified but weak. More frequent, however (unfortunately), is belief that's strong but not well justified. Here are some examples of both kinds of mismatch:

Darleen reads and believes her newspaper's daily horoscope column. She's always certain that the horoscope's predictions are correct – until they turn out clearly wrong (and then she makes excuses). So Darleen's justification for her belief that she's going to come into a lot of money later in the week is that it said so in her horoscope column. She thinks this is good justification for her belief, but it isn't.

Marvin has a very strong feeling that something terrible is going to go wrong today. In fact, this feeling is caused by a chemical problem in his brain, and has no justification. He knows he has no justification for this belief, and people tell him that he's just being crazy, but he can't shake the belief.

Archie has very good evidence that his wife is being unfaithful to him: he has seen copies of emails to her lover on their computer, credit card receipts from a motel, and so on. But Archie can't get himself to believe she's unfaithful. He recognizes that there is, in fact, some evidence there, but he just can't admit that it's conclusive. He has suspicions, but he doesn't feel sure. This is a case of very strong justification, but very weak belief (or no belief at all).

Susy's mum always told her to dress up warm on cold days, or else she'd catch a cold. She's heard this bit of folk-wisdom elsewhere too, and she believes it, because that's all she's ever heard about the subject. Medical research has conclusively proven, however, that dressing up warmly in cold weather has absolutely no effect on your probability of catching a cold. Susy's fairly firm belief is, in fact, unjustified.

Dr. Proctor is a scientist who has been investigating the causes of a mysterious disease. Her very careful and thorough experiments have satisfied all the scientific requirements for proof, but she won't say she's

completely sure. She points out that there's always some possibility that science has made a mistake, no matter how good the evidence. She recommends this attitude as open-minded healthy scepticism.

Stanley is the most stubborn guy around. He latches onto a lunatic belief and nothing can dislodge it. The other day he just dreamed up the idea that mobile phone use is causing global warming. People try to reason with him, showing him that there's absolutely no evidence for this, and that the physics of mobile phone transmission and the dynamics of weather make this very implausible, but he's adamant.

What these examples show is that there are several independent questions that we might ask about S and his or her belief, when we're wondering whether S knows that p:

Does S believe p strongly?

Does S think he or she has justification?

Does what S thinks is justification really justify p strongly enough?

Is there strong justification for p that S doesn't have in mind?

Unshakable knowledge

The idea that strongly justified strong belief is a necessary condition for knowledge has had a good number of proponents in the history of philosophy. The most influential view of this sort was perhaps that of René Descartes. Speaking of the distinction between rigorous knowledge on the one hand, and mere ordinary conviction or belief on the other, Descartes writes:

> I distinguish the two as follows: there is conviction when there remains some reason which might lead us to doubt, but knowledge is conviction based on a reason so strong that it can never be shaken by any stronger reason.

He describes this sort of conviction as 'quite incapable of being destroyed … clearly the same as the most perfect certainty'.

René Descartes (1595–1650) was a French philosopher who is now thought of as the most important influence on modern (that is, post-Medieval) philosophy. He wrote extensively on epistemology, but he was also a very important physicist and mathematician. (You might remember that the method of graphing using vertical and horizontal origins uses what are called 'Cartesian coordinates' – this was

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What exactly Descartes was aiming at here is a matter about which experts disagree. Perhaps he's thinking that knowledge has to be a belief that's *indubitable* or *incorrigible*, or *infallible*. These three terms need some explanation.

An **infallible** belief is one that cannot be wrong. If S believes p, then p must be true. It's impossible to falsely believe p. Sometimes philosophers use the terms 'indubitable' and 'incorrigible' as synonyms for 'infallible'. But sometimes they have a slightly different meaning. **Incorrigible** literally means *uncorrectable*, and some philosophers want to restrict its use to cases in which it's impossible for anyone other than S to have grounds for correcting S's belief. **Indubitable** literally means *undoubtable*: and to say that S's belief that p is indubitable is sometimes taken to mean that it's impossible for S to have grounds for rejecting it.

Incorrigibility and indubitability might be taken to be matters of strength of belief. A belief of S's might be so strong that nobody else would be able to shake it. Or so strong that

nothing that S thought of, or that happened to S, would get S to revise that belief.

It's a matter of some controversy exactly how to understand what Descartes is claiming about the conditions for knowledge; but we might take him to be suggesting that all of these conditions are necessary for S to know that p:

p is true

S believes that p

S's belief is *psychologically* maximally strong – incorrigible and indubitable – that is, it's not psychologically possible for S to abandon belief in p

S's belief has these characteristics because S takes the justification for p to be so strong as to make the belief infallible – that is, it could not possibly be wrong

S is not being pigheaded or gullible: the belief that p really is infallible.

S's belief is indubitable and incorrigible because he or she thinks it's infallible, and it really is genuinely indubitable and incorrigible because it really is infallible. So the key element we'll examine right now is the requirement of infallibility of S's belief.

You can see that this requirement sets an extremely high standard – maybe too high – because if this is what's needed, then precious few of your everyday beliefs are really knowledge. Consider your belief that you had fried eggs for breakfast this morning. Is this infallible? That is, is it at all *possible* that this belief is mistaken? Let me convince you it is. Look, you've been mistaken once in a while about matters like this – perfectly obvious matters, which you observed very recently. Your observation and memory are normally quite trustworthy in matters like this, but rarely something goes wrong – maybe a little failure of attention or an unusual

memory lapse. So this belief is not infallible. It's not very likely to be false – in fact, it's highly unlikely that you've got it wrong. But we're requiring *infallibility*, and this belief doesn't make the grade.

But then what belief would pass the requirement of infallibility? It's hard to think of any. Maybe there aren't any.

Suppose, then, that precious few of our ordinary beliefs pass this test, so they don't count as knowledge according to Descartes' criterion. What then? Here are three different responses one might have to this news:

1 I now see that knowledge is a much tighter concept than I thought, and that I've been mistakenly claiming I knew things all over the place when I really didn't. I guess I don't really know a lot of what I thought I did. I should reexamine what I thought I knew in this light, to see what if anything passes this very strict test.

2 No, look, the test you're proposing for what counts as knowledge rules out almost everything – maybe even everything – that people counted as knowledge, so you've got the test for knowledge wrong. You're not talking about our concept of knowledge; you're talking about something else altogether. So you've given me no reason to change my claims to know things.

3 I agree that *very* strong justified confidence is a necessary condition for knowledge, but we shouldn't require such perfection. There's a vanishingly small possibility I'm wrong about various obvious things we know. We should have a more reasonable test for the sort of certainty required here. We shouldn't require complete infallibility. We should require a less stringent sort of certainty.

Descartes would endorse 1, but he might be somewhat sympathetic to 2 as well. There's some reason to interpret his analysis as applying to a special kind of knowledge, a special sense of the word 'knowledge', not one that people ordinarily talk about. Sometimes translators and commentators present him as talking about *rigorous knowledge*, or *scientific knowledge*, which might reasonably be thought to have a higher standard for certainty than the ordinary garden-variety. It might still be the case, however, that his standard is so high that it can't be met even by our best attempts to be rigorous or scientific. What if we softened that requirement?

Descartes argued that the beliefs that arise from one's ordinary everyday sense-experience weren't infallible. There's always the possibility that our senses are playing tricks on us (he imagined a malevolent demon who gives us hallucinations), or that we're dreaming. He concluded that sense-experience could not provide the kind of genuine knowledge he was interested in. But he added that we needn't worry that *all* our everyday experiences are hallucinations, because God wouldn't provide us with senses and then let them be totally useless. But we have to be aware of their limitations, and seek genuine infallible knowledge elsewhere.

Indubitability and incorrigibility without infallibility

Suppose, then, that we drop perfect infallibility as a requirement for knowledge, but hold on to the idea that knowledge must be a very strong kind of belief – a belief that's indubitable and incorrigible in some way, even though not infallible. Is this a possible way to think about things? Can there be indubitability and incorrigibility without infallibility?

Or does fallibility of a belief imply that it's corrigible (that is that it's possible that someone would show you you're wrong about it)? And does it imply that it's dubitable (that is, does it raise doubts about that belief, and make it possible for you to change your mind)?

It's possible, of course, for a belief of S's to be fallible, but nevertheless incorrigible and indubitable for S, because S is merely pig-headedly stubborn about believing p. If someone gave S good reasons that made it reasonable to think that p was false, or if S him- or herself encountered these, he or she'd just refuse to reconsider. Nothing that S could encounter could show S that p is false, or even raise any doubt in S's mind about p. So for S, p is indubitable. Nobody else could possibly show S that p is false, so for S, p is incorrigible.

If we're going to make these two features of belief requirements for knowledge, it wouldn't be proper to let them be satisfied by S because of his or her irrational stubbornness. What we're looking for is an account of incorrigibility and indubitability that doesn't depend on either irrationality or infallibility. Is there any such account? Some philosophers have argued that there are genuine cases in which it's rational to be completely sure of something, in which one's belief is incorrigible and indubitable though fallible, and this is not mere stubbornness, but is instead good belief practice.

Here's one way a belief might be thought to satisfy these requirements. Consider again your belief about your breakfast. You've admitted that it's fallible. But does that raise any possibility of your changing your mind about it? Let's be careful here: it's one thing to admit that there's a very tiny possibility that the belief is false, but this is consistent with there being no possibility at all that you change your mind about it. Here's how this might be rational. You have an extremely strong justification for that belief: you remember breakfast very clearly, and your memory is almost always

reliable about the obvious features of very recent events you've experienced. To make you change your mind about this belief, or even to raise any doubt that it's correct, you'd need some counter-evidence that's stronger than what you've got in its favour. But your current evidence is so strong that you'd conclude that any possible counter-evidence was misleading. For example, if your mum insisted that you had cereal for breakfast, you'd decide that *she* had somehow dreamed it, or was suffering a peculiar memory breakdown, or something, before you'd even begin to doubt your own memory about something so recent and obvious. The same sort of thing applies to beliefs you have based on immediate clear sense-perception, under ideal conditions, of ordinary objects. You can see that there's a coffee-cup on the table, and the light is good, and so is your eyesight, and you haven't been taking any illegal drugs, so *any* evidence that you're mistaken would be insufficient to raise any doubts. There's a tiny possibility you really are mistaken – it's not an infallible belief – but no possibility of doubt.

The point is, here, that when S believes p, and has justification for that belief, but is confronted with evidence against p, there are two possibilities: S might either take that counter-evidence seriously and doubt or reject p, or else hold on to that belief that p, and doubt or reject the counter-evidence. Sometimes the first approach is the rational one; somebody who never acted that way is irrational, stubborn, pig-headed. But sometimes, the second course of action is the rational one. In these cases, even though the belief is fallible, and S knows it's fallible, what we have here is rational incorrigibility and indubitability.

The advantage of this approach is that it's implausible to think that there's any kind of belief that guarantees its own infallibility. Ayer claims, plausibly, that it never follows from

the fact that someone believes something that it's true. Even when that person believes it with maximum strength.