1. **Chapter 1: The argument for anti-luminousity**

This chapter has two aims. First, to briefly present Williamson’s conception of knowledge. I argue that knowledge is a factive mental state that cannot be factorized into true, belief, and some other component. But some philosophers think that mental states possess a special feature—luminousity—which means that we are always in a position to know when we possess those mental states. The second aim of this chapter is to present the anti-luminousity argument, which states that there are no non-trivial conditions that we are always in a position to know. This is because knowledge requires safety from error and near-error. As long as it is possible form a belief *p* when *p* is false or almost false in a nearby possible case, one’s true belief *p* cannot amount to knowledge. It follows that there are no conditions that we are always in a position to form knowledge about. Ergo, there are no luminous condition.

The first upshot of the anti-luminousity is (1) there are no luminous conditions, and so luminousity cannot be a feature of mental states without entailing an error theory about mental states. To save the existence of mental-states, we must reject luminousity for mental states. Once we give up luminousity as a feature of mental states, it follows that knowledge cannot be denied its status as a mental state because it is not luminous. The second upshot is that (2) many phenomena associated with privileged first-person access such as rationality, evidence and belief turn out not to be luminous. In chapter 2, we will see why this has implications for our normative theorizing, and the internalist-externalist debate.

* 1. **What is this thing called knowledge?**

First, let me give a brief and no doubt insufficient explanation of Williamson’s conception of knowledge. Williamson say knowledge is a factive mental state. A factive mental state is a propositional attitude whose content must be true. For example, one is in the factive mental states of remembering that *p* or regretting that *p* only if *p* is true. Factive mental states contrast non-factive mental states such as believing that *p*, imagining that *p*, fearing that *p* or considering that *p*. These mental states do not require *p*’s truth. Some might think that knowledge is not a mental state because it factorizes into a more basic mental state (belief) and non-mental component (truth and justification). They could argue that ‘If S is a mental state and C a non-mental condition, there need be no mental state S\* such that, necessarily, one is in S\* if and only if one is in S and C obtains’.[[1]](#footnote-1) This argument delivers the verdict that ‘true belief’ is not a mental state because it can be factorized into the non-mental condition truth, and the mental state belief. If knowledge is constituted by truth and belief (and something else), then knowledge is not a mental state. But the lesson of post-Gettier epistemology is that knowledge *can’t* be broken down into these constitutive parts! [[2]](#footnote-2) Gettier proved knowledge is not justified true belief, and Zagzebski put the final nail in the coffin—no matter how we cache out ‘justified’, there is no non-circular definition (i.e. one that presupposes truth) that will escape Gettier cases.[[3]](#footnote-3) Williamson exclaims ‘experience confirms inductively what the present account implies, that no analysis of the concept *know* of the standard kind [truth + belief + other] is correct’.[[4]](#footnote-4) Because knowledge cannot be broken down into a mental and non-mental components, it is a mental state in its own right.

* 1. **Anti-luminousity**

Access internalists claim we have guaranteed, first-person access to our own mental states. Whether we are cold or warm, in pain or in love, in the state of belief or disbelief, is always transparent. This feature is called luminousity. It means ‘for every case α, if a condition C obtains, then one is *in a position to know* that C obtains’. [[5]](#footnote-5) Because knowledge is not luminous—we do not always know if we know something—some argue knowledge is not a mental state. Williamson denies that there are *any* non-trivial luminous conditions, [[6]](#footnote-6) possessing mental states included. He argues not only can we not know our mental states—a claim with which the access internalist would agree—but the stronger claim that we are not always in a position to know our own mental states. This is because knowledge has to be safe from error: if S knows p, there can be no nearby cases in which p is false. If p is false in a nearby case, then S cannot know p. But for any condition C, we can imagine a case where C obtain in one case but it does not obtain in a nearby case. Consequently, in the former can, S cannot know that C obtains.

First, I will present the anti-luminousity argument. One of its key premises is the margin for error principle (MAR). I will show how to derive (MAR) from the safety condition for knowledge. Then, I will respond to luminists who think that certain conditions—such as being cold—are luminous because believing one is in that condition is constitutive of being in that condition. I will argue that even if belief that C obtains is constitutive of C, this does not guarantee safety, and thus we are not always positioned to know C obtains. Finally, I will conclude that there are no luminous conditions.

Let’s examine the argument in greater depth.

* + 1. **The Argument**

Williamson refutes the common intuition that feeling cold is a paradigmatic example of a luminous condition. By disproving the luminousity of coldness, he disproves the luminousity of all conditions: ‘since analogous thought experiments can be produced by any other putatively luminous (non-trivial) conditions, the anti-luminousity argument should generalize to all (non-trivial) conditions’.[[7]](#footnote-7)

First, he presents the following thought experiment. A person S feels freezing at dawn. By noon, S feels hot, having warmed in gradual, millisecond increments over the course of the morning. S changes from feeling cold to not feeling cold, and from being in a position to know she feels cold to not being in a position to know she feels cold. Throughout the morning, S actively introspects on whether she feels cold, and her confidence that she is cold decreases. At dawn, *t0*, she firmly believes she is cold, at noon, *t*n, she firmly believes she is no longer cold, and her confidence dwindles as she strays from *t0* and she hesitates when asked if she is cold, responding that it is ‘hard to say’, only to become certain that she is not cold as she approaches *tn.*

If *t0* demarcates the time at dawn, and *tn* demarcates the time at noon, let *t1*, *t2*.*.. tn-1*, mark the millisecond time-slices between dawn and noon. Call αi the case at ti (0≤ *i* ≤ *n*), and suppose S is cold at *ti*. Call the condition of being cold C. If C is luminous, S is always in a position to know C; given that S is actively introspecting on whether she is cold *ex hypothesi*, S will know when she is cold. This gives us the following premise:

(LUM) If C is luminous, S knows that C obtains in αi

Given the safety condition for knowledge, for S to know any proposition *p*, *p* must be true in a nearby possible world. Applied to the thought experiment, for S to know that C obtains, C must obtain in a nearby possible case, such as the next millisecond along. Consequently, we get the margin for error principle:

(MAR) If S knows that C obtains in αi, then in αi+1 C also obtains

As dictated by the thought experiment, S is cold at dawn (freezing!) and warm by noon. Consequently, we get:

(BEG) C obtains in α0

(END) C does not obtain in αn

Yet (LUM), (MAR), (BEG), (END) contradict one another. Here’s how: if S knows she is cold in αo, then by (MAR) C is true in α1; if C is true in α1, and (LUM) is true, then S knows C in α1 and by (MAR) C is true in α2; and so on. By iterating this argument n times, we get the conclusion that in αn, C obtains. In other words, at noon S is cold. But this is false. Because (BEG) and (END) are fixed as per the hypothetical, one must either reject (MAR) or (LUM). Williamson rejects (LUM).

The anti-luminousity argument can be constructed for any non-trivial condition, not just feeling cold. Pain, for example, is not luminous. One may not be positioned to know how much pain one is in, or if one is in pain at all. Similarly, doxastic attitudes are not luminous. One is not always positioned to know if conditions like ‘believing p’ or ‘it appears to S that A’ obtain if these conditions obtain in cases where there is a nearby possibility where C ceases, or one loses confidence in one’s beliefs or sense of how the world appears.

To take stock, luminousity is the false claim that one is always in a position to know some condition. Knowledge requires a safety from error, so to know that C obtains (and, a fortiori, to be positioned to know) requires that C be true in both the case one is in and in nearby possible cases. But given we can imagine a situation in which C is true in one case but not in the nearby case, it follows that in this situation one is not in a position to know that C obtains. Consequently, luminousity is false.

* + 1. **Safety and the Margins for Error**

The argument for anti-luminousity rests on a margin for error principle (MAR). I will show how (MAR) is derived from a safety principle. Next, I respond to luminists who attack (MAR) by arguing that believing one is in a phenomenal state is constitutive of that state—so, being believing one is cold is constitutive of being cold—, so one cannot form false beliefs about what state one is in, and thus (MAR) is false.[[8]](#footnote-8) One strategy for anti-luminists is to deny the constitutive connection. While seems more intuitively correct to me, I will argue that *even if* there is a constitutive connection, it does not guarantee luminousity.[[9]](#footnote-9)

* + - 1. **Deriving (MAR) from Belief-Safety**

The margin for error principle is derived from the intuitive idea that for some doxastic attitude to amount to knowledge, it must be safe from error. In other words, if p is true, but one could have easily formed the belief that p is false, one cannot know that p. Currently, (MAR) is soritical. To avoid the charge of being soritical, we need bridge the safety principle and (MAR).

The first safety principle for knowledge assumes there is no constitutive connection between believing one is cold and believing cold. Here, knowing p requires that one is not at risk of forming a false belief that p. Srinivasan offers a precise articulation:

(**BELIEF-SAFETY**) In case α S knows that a condition R obtains only if, in all sufficiently similar cases in which S believes R obtains, it is true that R obtains.[[10]](#footnote-10)

Thus, in order to know p, there must be ‘the absence of nearby untrue belief’ with respect to p.[[11]](#footnote-11) So, if I am I driving through the countryside and pass a (real) barn and form the belief that it is a barn, my belief cannot amount to knowledge if there are many identical fake barns within the area that would have fooled me into thinking they were real.[[12]](#footnote-12)

(BELIEF-SAFETY) alone will not give us (MAR). This is because, as Berker says, we can imagine someone who tracks whether they are cold with absolute precision. They believe they are cold up until the exact moment that they cease to be cold, at which point they believe they are not cold.[[13]](#footnote-13) In other words, there exists no sufficiently similar cases where S believes that they are cold when they are not in fact cold. This person would satisfy (BELIEF-SAFETY) while falsifying (MAR).

Anti-luminists thus need a principle for deriving (MAR) from (BELIEF-SAFETY) that ‘connects S’s belief about C in αi to S’s belief about C in αi+1’.[[14]](#footnote-14) Consider the following principle:

**(BEL)** If S believes C obtains in αi, then S believes C obtains inαi+1.

Combined with (BELIEF-SAFETY), it follows that if S knows C obtains in αi then C must be true one millisecond later, giving us (MAR). But (BEL)’s soritical status emerges: if you iterate (BEL) *n* times, it follows that in αn S believes she is cold. But this is false as laid out by the hypothetical. Consequently, (BEL) cannot be true.

Srinivasan offers a revised version of (BEL), (BEL\*). Note that (BELIEF-SAFETY) says that for S to know R, R must obtain in *all* *sufficiently similar cases*. The range of sufficiently similar cases is not exclusively bound to the actual world. Just because S miraculously stops believing she is cold at the exact point at which she stops feeling cold (in αi+1), it does not follow that there are no sufficiently similar cases to αi+1 at which S believes falsely that she is cold.[[15]](#footnote-15) The fact S ceased believing that she was cold at the precise moment she stopped being cold is insufficient for safety; safety requires S lacks untrue belief in *all possible* similar cases.[[16]](#footnote-16) It is highly plausible that there are possible similar cases where S has untrue belief, given how humans are disposed to believe. If I am in a situation where I form the belief p, it is highly plausible that in a very similar situation I would also be disposed to believe p. For example, if ‘I am looking at a jar full of 1000 marble…[and] I form the belief that there are a lot of marbles in the jar…[if] I’m then confronted with a very similar scenario—a jar with, say, 999 marbles, at a similar distance and in similar lighting conditions etc.—I am *disposed* in that scenario to believe, again, that there are a lot of marbles in the jar’, [[17]](#footnote-17) even if I do not form that belief that there a lot of marbles in the second scenario. In other words, if we believe p in one scenario, we are disposed to believe p in a similar scenario. If we believe we are cold αi, we are disposed to believe we are cold at ti+1. Thus we get

(**BEL**\*): if in caseαi S believes she feels cold, then there exists a sufficiently similar possible case βi+1 in which S’s cold-feelings are a phenomenal duplicate of her cold-feelings in αi+1 and in which S believes she feels cold.[[18]](#footnote-18)

This bridging principle delivers (MAR) and is not soritical: it is grounded in an empirical claim about how we are disposed to believe, rather than resulting from the vagueness of the concept of belief. If we believe we are cold in one scenario, and we are at disposed to believe we are cold in very similar scenarios, there exists possible similar scenarios in which we falsely believe we are cold. To reject (BEL\*), the luminist has to argue that S stops believing she is cold at ti+1 in all possible cases. But such a creature does not resemble humans, who have dispositions to believe the same beliefs across sufficiently similar cases. Thus, S’s belief that she is cold in αi is not knowledge because there is a nearby possible case where S falsely believe she is cold.

I have just argued that the margin for error principle is true in virtue of (1) the safety condition of knowledge and (2) the doxastic dispositions of creatures like us. This means that there are cases where we are not in a position to know if a condition obtains. Given the truth of (MAR), we must reject luminousity.

* + - 1. **(MAR) and the Constitutive Connection**

Some defenders of luminousity claim that believing one is cold is constitutive of being cold.[[19]](#footnote-19) Because being cold necessarily entails believing that one is cold, and not being cold entails not believing one is cold*, one can never falsely believe that one is cold*. Ergo, (BEL\*) is false and safety is grounded by the very nature of being cold. Luminists generalize the connection between believing one is cold and being cold to other mental states, thus concluding there are some luminous conditions. I will argue that even if we grant this connection between being in a condition and believing one is in that condition, anti-luminousity is still true.

A preliminary remark; there are obvious worries about this picture of the phenomenal. It means that whenever I am cold, I believe that I am cold. It denies the possibility that I might not realise I am cold because my attention is focused elsewhere. Or, if we take the case of pain, if I am attempting to distract myself from pain, whenever I successful distract myself from my pain, if only for a second, I cease to be in pain. We ought to be suspicious of this striking departure from our usual descriptions of coldness and pain.

Anti-luminists must formulate a version of safety that nonetheless undermines the view that the constitutive connection secures luminousity. Let’s begin with Williamson’s defence of (MAR) which emerges from his view that for S to know that she feels cold, she must (1) be ‘reasonably confident that [she] feels cold’ and (2) ‘this confidence must be reliably based’.[[20]](#footnote-20) From (1), we get the premise that being confident that *p* is necessary for knowing that *p* (though obviously insufficient). Similarly, if one has low confidence that p is true, then one neither knows p nor outright believes p. There is a threshold one’s confidence, which comes in degrees, must pass which takes one’s doxastic attitude from not being a belief, to being an outright belief and finally to knowledge.

From (2), we get the premise that for one’s knowledge that *p* to satisfy a safety principle, one’s *confidence* that *p* must safe from mistake. To be safe from mistake, there can’t be any nearby cases, such as one millisecond later in a series, in which one has ‘misplaced confidence’. [[21]](#footnote-21) So in the original thought experiment, Williamson states that even if S does not believe she is cold (and therefore isn’t cold) at ti+1, her confidence at ti that she feels cold ‘is not reliably based, for one’s almost equal confidence on a similar basis a millisecond later that one felt cold is mistaken’.[[22]](#footnote-22) He continues, ‘even if one’s confidence at ti was just enough to count as belief, while one’s confidence at ti+1 falls just short of belief, what constituted that belief at ti *was largely misplaced confidence*; the belief fell short of knowledge’.[[23]](#footnote-23) Or, as Srinivasan puts it, ‘**nearby misplaced confidence—high confidence in an untruth—is sufficient to preclude knowledge’**.[[24]](#footnote-24) Consequently, we get a picture of safety defined in terms of confidence:

**(CONFIDENCE-SAFETY):** In case α S’s belief that *p* with degree of confidence *c* is reliability based in the way required for knowledge only if, in any sufficient similar case α\* in which S has at-most-slightly-lower degree of confidence *c*\* that *p*, it is true that *p*.[[25]](#footnote-25)

But we need to bridge (CONFIDENCE-SAFETY) and (MAR). Just as we generated (BEL\*) from an empirical assumption about our dispositions to believe in similar cases, we can generate an analogous principle about our disposition to assign confidence in similar situations:

(**CONF**): If in αi S has degree of confidence *c* that she feels cold, there exists a sufficient similar possible case βi+1 in which S’s cold-feelings are a phenomenal duplicate of her cold-feelings in αi+1 and in which S has at-most-slightly-lower degree of confidence *c\** that she feels cold.[[26]](#footnote-26)

The luminist who thinks there is a constitutive connection between believing one is cold and being cold is going to deny that one’s confidence in αi is misplaced.[[27]](#footnote-27) According to this luminist, our confidence *always* dips below the necessary amount for outright belief at the exact moment we cease being cold.[[28]](#footnote-28) But the luminist’s defence turns on what one thinks an ‘inappropriately high degree of confidence’ amounts to.

To respond to this stubborn luminist, we can take another tact. Inappropriately high confidence does not just refer to meeting the confidence-threshold for an outright false belief. Srinivasan offers the following thought experiment:

**Receding Fake Barns:** Suzie is looking at what appears to be two rows of barns. The first row is composed of real barns, while the second row’s barns are fake. The threshold for outright belief is 70%. While Suzie believes with 70% confident that she is looking at a row of barns in the first row, as she looks at the second, more distant row, she believes with 69% confident that it is a row of barns.[[29]](#footnote-29)

Suzie’s belief with respect to the first row is reliably true. By contrast, her belief about the second barn is false, but she does not believe it outright. If Suzie had believed the second row of barns to be real, then her belief about the first row would not have been knowledge due to her nearby false belief. Although Suzie does not have a nearby false belief in *Receding Fake Barns***,** she has a nearby almost-false belief! The fact that Suzie just fell short of believing that the second row was constituted of real barns should not entail that Suzie *knows* that the first row is constituted of real barns. Rather, it shows that ‘safety requires more than the absence of nearby untrue belief, it requires the absence of nearby untrue *almost*-beliefs’.[[30]](#footnote-30) Now consider Williamson’s ‘cold morning’ hypothetical. When S’s is in the last case before she stops feeling cold, αi, in the next case along S’s confidence drops below the threshold for belief, and yet S has *almost false* outright belief that she is cold. Consequently, S’s belief in αi is not safe and does not constitute knowledge.

The only way for the luminist to resist this argument is to imagine that S could not have any nearby almost-false beliefs. To do this, S’s confidence would have to drop rapidly between cases. So if in αi S is 70% confident she is cold, for her to have no nearby almost-false beliefs that she is cold her confidence must plummet to whatever the threshold for not believing is. But as Berker and Srinivasan assert, a picture where one’s confidence ‘discontinuously jumps’ is *too* radical a departure from our physiology and psychology. [[31]](#footnote-31) Surely any picture where one is minimally cold (and believe oneself to be cold), then milliseconds later rapidly drops one’s confidence in the belief that one is cold while one’s temperature changed only marginally, is an fantastical picture of our physical systems. The luminist is no longer imagining a creature like us.

Let’s take stock. (CONFIDENCE-SAFETY) requires that for S to know C obtains, S does not have high confidence in C when it does not obtain, including enough confidence to almost-falsely-believe that C obtains. In the cold morning thought experiment, there is a point at which S does have inappropriately high confidence when C does not obtain, even though S does not believe C obtains. Consequently, there is a point at which S is not in a position to know C obtains. Thus, even if there is a constitutive connection between being in a condition and believing one is in that position, that constitutive connection does not sure-up luminousity.

* + 1. **The lesson so far**

In this chapter, I presented two arguments for why there are no luminous condition. I considered the condition of being cold. My first argument assumed that believing that one is cold is not constitutive of being cold. I argued that we are disposed to form the same belief in similar situations. So, if one is barely cold and believes oneself to be cold, one will be disposed to believe oneself to be cold if one’s temperature drops marginally, even if one is no longer cold. Consequently, one is not in a position to know if one is cold when one is barely cold because one has a possible nearby false belief. My second argument said that even if believing that you are cold is constitutive of being cold, one’s knowledge that one is cold is unsafe is one almost believes one is cold in a nearby case where one is not cold. Consequently, there are no luminous conditions.

The argument against luminousity generalizes to all non-trivial conditions. Those who deny that knowledge is a mental state because it isn’t luminous are forced to deny that there are *any* mental states, for none can satisfy luminous. Consequently, we should relinquish luminousity as a condition for mental states. More pressingly, anti-luminousity has implications for our normative theorising. I will explore these implications in the following chapter.

1. Williamson, Knowledge and its Limits, 28 [↑](#footnote-ref-1)
2. Gettier, Is Justified True Belief knowledge. 1963. [↑](#footnote-ref-2)
3. Zagzebski, ‘the inescapability of the gettier problem’, 1994. Zagebski specifically attacked Platinga’s concept of warrant as justification, but here is a brief list of failed attempted attempts to deliver a notion of justification that escapes to Gettier cases: Clarke’s ‘No-False-Lemmas’ and Goldman’s causal accounts are refuted by Sosa’s *Fake Barns*; Nozick’s tracking account [↑](#footnote-ref-3)
4. Williamson, some page [↑](#footnote-ref-4)
5. Williamson, KIL, 95. Note ‘being in a position to know p’ means that p is ‘unhidden’ from you, in plain sight even if you have not yet acknowledged it. For example, I am currently in a position to know that my computer charge is dwindling, and, in virtue of my testimony, so is my reader. Conversely, I am not currently in a position to know what secrets manuscripts can be found in the Vatican library. [↑](#footnote-ref-5)
6. Trivial conditions are those which are always obtain or never obtain. For example, we are always in a position to know certain identity claims such as a = a, and certain contradictions. [↑](#footnote-ref-6)
7. Srinivasan, are we luminous, 3 [↑](#footnote-ref-7)
8. Weatherson, Berker, Ramachandran [↑](#footnote-ref-8)
9. Another strategy for luminists is to deny the safety condition for knowledge. For the sake of brevity, I will not address these arguments in this chapter. See xyz for discussion of these issues. [↑](#footnote-ref-9)
10. Srinivasan, ‘Are we luminous’, 6. [↑](#footnote-ref-10)
11. ibid. [↑](#footnote-ref-11)
12. Sosa [↑](#footnote-ref-12)
13. Berker, 2008 [↑](#footnote-ref-13)
14. Srinivasan, ‘Are we luminous’, 8. [↑](#footnote-ref-14)
15. Ibid, 9. [↑](#footnote-ref-15)
16. ibid [↑](#footnote-ref-16)
17. Srinivasan, ‘are we luminous’, 11. Italics mine. [↑](#footnote-ref-17)
18. ibid. [↑](#footnote-ref-18)
19. Weatherson, Berker [↑](#footnote-ref-19)
20. Williams, Knowledge and its Limits, 97. [↑](#footnote-ref-20)
21. ibid. Italics mine. [↑](#footnote-ref-21)
22. Ibid. Note confidence is not the same as credence, instead it picks out ‘one’s willingness to rely on *p* as a premise in practical reasoning’ (Srinivasan, 21). [↑](#footnote-ref-22)
23. ibid. Italics mine. [↑](#footnote-ref-23)
24. Srinivasan 16-17 [↑](#footnote-ref-24)
25. The name of this principle—(CONFIDENCE-SAFETY)—is, as the case with all the principles in this chapter, Srinivasan’s. However, my definition of (CONFIDENCE-SAFETY) comes from Berker. See Berker, Luminousity Regained, 2008. [↑](#footnote-ref-25)
26. Srinivasan, ‘are we luminous’, 17. [↑](#footnote-ref-26)
27. Cohen 2010, 724. Berker, 12. [↑](#footnote-ref-27)
28. Note that our disposition to have similar confidence in p in similar scenarios is a strong reason to reject the constitutive connection, but I will not pursue this line of argument here. [↑](#footnote-ref-28)
29. This is my presentation of Srinivasan’s thought experiment, 21 [↑](#footnote-ref-29)
30. Srinivasan, ‘are we luminous’, 21. [↑](#footnote-ref-30)
31. Srinivasan, 22; Also see Berker, 15. [↑](#footnote-ref-31)