Thought Experiments Without Intuitions

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Abstract

In this thesis, I present a pluralistic, intuition-free account of the epistemology of thought experiments. In doing so, I argue against the current methodological orthodoxy according to which intuition is the *only* source of evidence that can warrant our judgments about thought experiments to be true. I will argue that intuition might serve an evidential role in thought experiments, but that it is not true that the epistemic value of thought experimentation relies on the epistemic value of intuition. Judgments about thought experiments are justified in virtue of experience, perception, memory, background knowledge and other intuition-free sources of evidence. In addition, the claims made about thought experiment are often (if not always) deductively implied conclusions of arguments presented by the author of the thought experiment. Accordingly, we do not *need* intuitions in order to be justified in holding judgments on the basis of considering thought experiments to be true.

Much of what I will argue in this thesis will be inspired by three authors: Herman Cappelen, Max Deutsch and Timothy Williamson. Some core elements of the theories advocated by these three authors are, as we shall see, in conflict. One central goal of this thesis will be to dissolve those conflicts. The result will be an optimistic account of the epistemology of thought experiments. There is nothing mysterious or exceptional about the way in which thought experiments work. Thought experiments are useful argumentative tools, and philosophers ought to be confident in employing them for both evidential and non-evidential purposes.

Contents

Thought Experiments Without Intuitions?

Like with actual experiments, the aim of a thought experiment is to teach us something new about the world. Unlike an actual experiment thought experimentation does not require interaction with the world. We can perform a thought experiment from the armchair. This might strike us as odd. If our aim is to learn about the actual world, it seems we ought to produce actual results, not imagined ones. How can the considering of an imaginary scenario lead to new knowledge of the world? Where does the new knowledge come from?

One widely endorsed answer to this puzzle (henceforth the *Epistemological Puzzle of Thought Experimentation)* is the following: thought experiments put us in a position to acquire new knowledge by inviting us to counsel our *intuitions* about the case in question. On one version of this view, the evidential role of intuition in thought experiments is equivalent to the evidential role of perception in scientific experiments.[1] Whereas perception provides us with new information by making us aware of concrete reality, intuition provides us with new information by making us aware of abstract reality.[2] Thought experiments are, as put by James Brown, "telescopes into the abstract realm." [3]

The idea that intuitions play a central evidential role in thought experiments is, according to Herman Cappelen, a view that is almost universally accepted among contemporary analytic philosophers: "No matter what areas you happen to work in and what views you happen to hold in those areas, you are likely to think that philosophizing requires constructing cases and making intuitive judgments about cases."[4] Indeed, most philosophers assume, if we are to believe Jennifer Nado, that the only way thought experiments can play an evidential role in philosophy is by generating intuitions. According to this supposedly widespread view, there is no other viable answer to the Epistemological Puzzle of Thought Experimentation. [5]

Against this background, it is not hard to see why so much debate in recent metaphilosophy centers around questions concerning the nature and epistemic value of intuition. A lot of energy has been expended attempting to account for what intuitions are and whether having an intuition can provide an agent with justification. Despite the efforts, however, the dissensus characterizing the debate is striking. There is no popular account of

[1] Rowbottom, 2014, p. 119.
[2] See Chudnoff (2014), for instance, for this view.
[3] Brown, 2004a, p. 1131.
[4] Cappelen, 2012, p. 1.
[5] Nado, 2016, pp. 793-794.

what intuitions are, and intuition-theorists are nowhere close to agreeing on when and why the content of our intuitions should be considered true. Some philosophers are nevertheless optimistic: they believe that we can say something about the nature of intuition and that intuition can be, and often is, a reliable source of knowledge.[6] Others are pessimistic: they believe that experimental data has given us ample reason to question philosophers' substantive reliance on intuition.[7] According to a third view, however, both the optimism and the pessimism are unfounded. The intuition-friendly and the intuition-hostile philosophers go wrong, according to this view, in assuming intuition to play a central evidential role in thought experiments in the first place. This underlying assumption, though widespread in contemporary analytic philosophy, is simply false.

The third view (henceforth the no-intuition view) is most notably argued for by Herman Cappelen in *Philosophy Without Intuitions* and by Max Deutsch in *The Myth of the Intuitive*.[8] The two books differ in emphasis, but the overall argumentative strategy is fairly similar. The claim that intuitions play an evidential role in contemporary analytic philosophy is, as both Cappelen and Deutsch point out, a straightforwardly empirical claim about how philosophers do philosophy. Accordingly, the claim can be supported or rejected on the basis of looking at philosophical texts. That is the strategy employed by Cappelen and Deutsch. Cappelen examines eleven cases assumed to be paradigmatic instances of philosophers appealing to intuitions as evidence.[9] Deutsch, in his book, examines seven additional thought experiments. Neither Cappelen nor Deutsch find textual support for the claim that intuitions are treated as evidence in any of these texts.[10] What they do find, however, is textual evidence to the effect that philosophers offer arguments for the claims they make about their thought experiments. With no textual evidence to the effect that intuitions play evidential roles in thought experiments, and with eighteen examples of arguments serving the role of evidence, it

[6] The intuition-optimism is shared by a vast number of contemporary analytic philosophers, perhaps most notably by Bealer (1998), Bonjour (1998), Sosa (2007, 2014), Goldman (2007), Chudnoff (2013), and Pust (2014)

[7] The intuition-pessimism is most readily associated with the negative branch of the experimental philosophy movement. See for instance Machery et al (2004), Swan et. al (2007), Weinberg and Alexander (2007, 2014). For examples of non-experimental intuition-hostile philosophy, see Kornblith (1998) and Williamson (2007, 2015, 2018).

[8] See Cappelen (2012) and Deutsch (2015). Other defenses of the no-intuition view can be found in Earlenbaugh and Molyneux (2009), Dorr (2010), Molyneux (2014), Ichikawa (2014, 2016) and Machery (2018). Furthermore, Timothy Williamson is often considered a proponent of the no-intuition view. For reasons outlined in Chapter 5, however, we might want to be careful in attributing this view to Williamson.

[9] There are ten case studies in Cappelen (2012) and one in Cappelen (2014a).

[10] The cases examined by Cappelen and Deutsch are thought experiments typically assumed to be paradigmatic examples of appeals to intuition as evidence. For example: the trolley problem, the Gettier case, Thomson's violin case, Chalmers' Zombie argument and Kripke' twin earth.

seems that the assumption that philosophers appeal to intuition as evidence when doing thought experiments amounts to a myth. The correct answer to the Epistemological Puzzle of Thought Experiments appears to be intuition-free.

This would, it seems, be a positive result. To see why, consider the following quote from Timothy Williamson:

> "Intuition" plays a major role in contemporary analytic philosophers' self-understanding. Yet there is no agreed or even popular account of how intuition works, no accepted explanation of the hoped-for correlation between our having an intuition that P and its being true that P. Since analytic philosophy prides itself on its rigor, this blank space in its foundations looks like a methodological scandal.[11]

Philosophers have not, however, welcomed Cappelen and Deutsch's eliminative project. Despite the empirical nature of Cappelen and Deutsch's evidence against the view that philosophers appeal to intuitions as evidence, the no-intuition view has been met with a largely critical reaction. Philosophers have not found the textual evidence of Cappelen and Deutsch convincing, and most analytic philosophers still assume, without apology, that intuitions serve a central evidential role in thought experiments. If what I argue over the next five chapter is correct, however, philosophers should not make that assumption. If intuitions function as evidence in thought experiments at all, their evidential role is limited. Intuitions can, at best, provide *additional* evidence for the claims we make about thought experiments. Accordingly, the lack of answers to questions concerning the nature and epistemic value of intuition should not be considered a methodological scandal. There is no significant foundational lacuna in philosophy.

The project of this thesis is principally positive. We do not *need* intuitions in order to be justified in holding judgments we make on the basis of considering thought experiments to be true. Thought experiment judgments are justified in virtue of being informed and disciplined by experience, perception, memory, background knowledge, training and other intuition-free sources of evidence. In addition, we are, in almost all (if not all) cases, justified in taking our judgments about thought experiment to be true on the basis of them being deductively implied conclusions of arguments marshaled by the author of the thought experiment. Thus understood, there is nothing exceptional about the way our thought experiment judgments are justified.

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[11] Williamson, 2007, p. 215.

The line of argumentation in this thesis will not, however, be exclusively positive. The thesis can be viewed as a reply to an argument I will call, following Jennifer Nado, the Argument from Lack of Other Obvious Options. As claimed by Nado, most analytic philosophers endorse, either tacitly of explicitly, the view that intuition is the only viable answer to the Epistemological Puzzle of Thought Experimentation. The Argument from Lack of Other Obvious Options claims that this alleged fact entitles us to assume, without textual evidence, that intuitions are what plays the role of evidence in thought experiments. Here is an articulation of the argument due to Paul Boghossian:

> […] we are justified in believing that philosophers appeal to intuitions because they must be - there is *no other viable explanation* of their philosophical practice. Since they take themselves to be justified in making certain sorts of judgments on the basis of thought experiments, and since they are in a good position to see that there is *nothing else* to justify them in making such judgments, a charitable construal of their practice- in line, of course, with all their almost obsessive talk of intuition- would have them appealing to intuitions.[12]

There are at least three reasons why this argument should be rejected. First, it is not true that ordinary sources of evidence cannot or do not serve evidential roles in thought experiments. Second, we should not assume claims made about thought experiments to rest solely on one form of evidence. Most claims made in philosophy are copiously supported. We should not think that claims made about thought experiments are exceptions to this general tendency. Third, obsessive intuition-talk and a lack of other obvious options should not make us conclude that evidence for claims about thought experiments is intuition-based.

This thesis has five chapters. I begin, in Chapter 1, by outlining the textual evidence produced by Cappelen and Deutsch. As we shall see, both Cappelen and Deutsch take their textual evidence to illustrate that intuitions are not playing an evidential role in *philosophy*. I will argue that the textual evidence does not support that claim. What the textual evidence of Cappelen and Deutsch shows is that intuitions are not playing a *central* evidential role in thought experiments. Moreover, I will conclude, contra Cappelen and Deutsch, that the textual evidence offered does not exclude the possibility of intuitions serving an *additional* evidential role in thought experiments. In Chapter 2, I will make an argument to the effect that to raise the Argument from Lack of Other Obvious Options is to commit a fallacy. The move of invoking intuition as the evidential source in a situation where no other obvious options are available is not a legitimate move. I argue in Chapter 3, with Cappelen and Deutsch, that philosophers give reasons for their claims about thought experiments, and that whether we are

[12] Boghossian, 2014, p. 381. My emphasis.

justified in holding some thought experiment judgment to be correct depends on the arguments offered for the judgment. In Chapter 4, I propose that justification for thought experiment beliefs is not merely the result of arguments. Our judgments about thought experiments can, I suggest, be justified even if our judgments are not formed on the basis of arguments. This additional justification is, I argue, derived from ordinary sources of evidence, such as memory, background knowledge, and our ability to make reliable judgments using our imagination. In Chapter 5, I address points of disagreement between Williamson's view of the epistemology of thought experiments and the view advocated by Cappelen and Deutsch. Williamson, as we shall see, endorses some of the claims typically accredited intuition-theorists. In particular, Williamson claims thought experiment judgments to enjoy default justification, and he claims the role of inference and experience to play a somewhat restricted role in the forming of our thought experiment judgments. I will argue, in discordance with Cappelen and Deutsch, that these features of Williamson's theory are unproblematic. I close the thesis by an illustration of how the various conclusions drawn throughout the five chapters can disarm philosophers publishing under the banner of experimental philosophy.

Before turning to the textual evidence of Cappelen and Deutsch, a few points are worth accentuating. First, I do not subscribe to a particular theory of thought experiments. A theory of what thought experiments are and how they work will presumably be controversial, and might not even be something one should aspire to have a theory of. There may not be some essential feature common to all thought experiments, and we do not seem to have reason to think that all thought experiments function in a similar way. Thought experiments are employed differently by different philosophers, it seems, and varies with context.[13] In any case, a precise definition of thought experiments is not a prerequisite for saying something about evidence for thought experiment judgments, and thus I leave the issue aside.[14] Second, it is worth emphasizing that the theory outlined here will be supportive of philosophers' use of thought experiments. Thought experiments are useful tools in philosophy; they just do not work in the way most philosophers assume them to.

[13] See Cooper (2005) and Machery (2017) for discussions of the many different functions though experiments may have.

[14] I hence follow Cappelen in endorsing a no-theory theory of thought experiments. Cappelen thinks that we are justified in making some generalizations, but nevertheless does not believe that thought experiments is a sort of thing that one should have a theory of. See (Cappelen, 2012, p. 132.)

Chapter 1- The Textual Evidence

This chapter is divided into three sections. In the first section, I argue that Cappelen and Deutsch draw conclusions that cannot be vindicated by their textual evidence. In section 2, I outline and object to Deutsch's strategy for detecting appeals to intuition as evidence. In Section 3, I consider the textual evidence produced by Cappelen.

1.1 Philosophy Without Intuition?

The aim of Cappelen's *Philosophy without Intuitions* and Deutsch's *The Myth of the Intuitive* is to argue that intuitions do not, as a matter of fact, serve an evidential role in philosophy at all. Since the question of whether or not philosophers treat intuitions as evidence is an empirical question the relevant way of evaluating the claim is, they argue, by considering textual evidence. On the basis of textual evidence, Cappelen and Deutsch conclude that philosophy as a whole, is without intuition.

In drawing that conclusion, Cappelen and Deutsch are, in my opinion, guilty of significantly overstating the merits of their own textual evidence. As admitted by both Cappelen and Deutsch, there are a multitude of different philosophical practices commonly assumed to treat intuitions as evidence. Intuitions are, for instance, typically supposed to serve an evidential role in that they are assumed to function as rock-bottom argumentative starting points. A lot of philosophers also supposed intuitions to play an evidential role in conceptual analysis, and intuitions are typically also assumed to be closely connected to apriority. Cappelen and Deutsch does not, however, present textual evidence to the effect that intuitions do not serve an evidential role in these practices. Their focus is instead exclusively on thought experiments, and it is on the basis of not finding textual evidence for the view that intuition serves an evidential role in thought experiments they conclude that *philosophy as a whole* is without intuitions.[15]

Now, one could argue that of all the practices assumed by philosophers to be intuition-deploying, the practice of employing thought experiments is most likely to involve appeals to intuition as evidence. From this one could argue that a convincing case to the effect that

[15] There is also a sense in which Cappelen and Deutsch' conclusion is misleading. The focus of Cappelen and Deutsch is the *evidential* role of intuitions in philosophy. However, neither Cappelen nor Deutsch say anything to block a non-evidential role for intuitions. Non-evidential appeals to intuitions are, as with evidential appeals to intuition, assumed to be widespread in philosophy. The most widely accepted idea is that intuitions play a role in the context of discovery. A second non-evidential role for intuition is proposed to be dialectical. Molyneux, for instance, suggests that "intuition may pragmatically set the burdens in arguments: if p is intuitive, the burden is on the defender of -p" (Molyneux, 2014, p. 445).

intuitions do not play an evidential role in thought experimentation *gives us good reason to doubt* that intuitions play an evidential role elsewhere in philosophy. That is not, however, the claim Cappelen and Deutsch are making. The claim is that an illustration of there being no appeal to intuition as evidence in thought experiments is evidence for the claim that philosophers do not appeal to intuitions at all.[16] This broader conclusion does not follow. Textual evidence concerning thought experiments cannot tell us more than what philosophers treat as evidence when doing thought experiments.

In what follows, I ask whether the textual evidence of Cappelen and Deutsch is strong enough to establish the narrower claim that intuitions are not treated as evidence for judgments about thought experiments. I will suggest that the answer is no. The textual evidence does not, for instance, vindicate the following conclusion drawn by Deutsch:

> "…as a matter of fact, analytic philosophers do not treat intuitions about thought experiments and cases as evidence. There is no such method. The belief that there is such a method is just a myth, a part of metaphilosophical folklore that I call the myth of the intuitive.[17]

The conclusion we should draw on the basis of Cappelen's and Deutsch's case studies is, I will argue, that intuitions do not serve a *central* evidential role in thought experiments. The textual evidence does not exclude the possibility of intuition playing an *additional* evidential role for claims we make about thought experiments. Whether or not they do is an open empirical question.

We might be worried that this more cautious conclusion will have relevantly weaker implications than the radical conclusion drawn by Cappelen. Based on my assessment, it does not. This more cautious conclusion does not, as we shall see, have relevantly weaker implications than the more radical conclusions drawn by Cappelen and Deutsch. The cautious conclusion implies, like Cappelen and Deutsch's radical conclusion, that philosophers are no longer entitled to assume intuition to serve an evidential role in philosophy. In addition, the cautious conclusion is sufficient, as we will see towards the end of this thesis, to reject the experimental philosophy movement - a central aim of Cappelen and Deutsch's books. The cautious conclusion also has the virtue of being less provocative. Instead of mocking almost all contemporary analytic philosophers, it is open to the idea of intuitions serving a complementary evidential role in thought experiments.

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[16] For an example, see page 96 in Philosophy without Intuition. Cappelen here rejects the view that "philosophers rely (in some epistemically significant way) on intuitions when they make judgments about cases." In the next sentence, Cappelen states that, "The overall conclusion is that there is no 'implicit' reliance on intuitions in philosophical practice."

[17] Deutsch, 2015, xv.

With the preliminaries out of the way, let's consider Cappelen and Deutsch's textual evidence. In my view, Cappelen and Deutsch are correct in pointing out that the descriptive question of whether or not intuitions serve an evidential role in philosophy should be answered by careful reading of texts. However, looking for intuitions in philosophical texts is easier said than done. In order to establish that intuitions are not playing an evidential role in philosophy it seems that we have to deal with the contentious task of specifying what something must be in order to be an intuition. That makes the search for textual evidence of reliance on intuition difficult. As put by Weinberg, the literature on intuitions can "be a total mess on even the most basic questions about what intuitions are."[18] An important implication of this obstacle is pointed out by Cappelen in the following way:

> Given the amorphous and shifty understanding of the intuitive in the philosophical tradition, it is not helpful to just look at the text and ask: Is there an appeal to the intuitions in the text? Given the many understandings of 'intuitions' found among philosophers, a debate over this question, without further precisification, is worse than pointless.[19]

The question remains, however, on how we are to establish empirical evidence for or against reliance on intuition. Are we required to spell out a full-blown theory of intuition in order to evaluate whether or not intuitions play an evidential role in philosophical texts? Fortunately, the answer to that question is no. As emphasized already, the claim that intuition is treated as evidence in philosophical practice is an empirical claim about how philosophers do philosophy. In evaluating the descriptive adequacy of that claim, the focus should be on what those party to the debate claim intuition to be, not on what intuition, ultimately speaking, is.

This is recognized by Cappelen and Deutsch, and thus they venture at the task of capturing what those party to the debate mean when they claim intuition to be treated as evidence in philosophical practice. Cappelen aims to articulate central features that capture the core notion of intuition at play in the literature. Deutsch, on the other hand, advocates agnosticism about what features intuitions do or must possess. We have examples of what intuitions are supposed to be and that is, on Deutsch's account, enough to address the question of what role intuition plays in philosophical practice. Let's consider Deutsch's no-theory theory first.

[18] Weinberg, 2014, p. 545.
[19] Cappelen, 2012, p. 130.

1.2 Deutsch's No-theory Theory

According to Deutsch, we can answer the question of whether or not intuitions serve an evidential role in philosophy without first articulating a theory of what intuitions are. This is because we have "examples of intuitive judgments about which those party to the debate over their role can agree" and we can therefore "trust that the reader will be able to recognize an intuitive judgment when he or she encounters one."[20] One example discussed by Deutsch is the so-called Frankfurt cases. In a discussion over a Frankfurt-case, Deutsch claims, all participants to the debate understand what the so-called Frankfurt-intuition is supposed to be. The intuition is, Deutsch continues, the judgment that the protagonist in Frankfurt's thought experiment is not free to do otherwise than carry out a certain act, and yet is morally responsible for the act. As long as everyone agrees that this judgment is supposed to be the intuition, a debate over the evidential role of intuition is unproblematic. We simply ask whether this particular judgment labeled intuitive by the intuition-theorists serves a central evidential role for the claims we make about Frankfurt's thought experiment. To say more about the nature of the so-called intuitive judgment would, Deutsch claims, be an unnecessary detour.

Moreover, Deutsch claims there to be some commonalities to examples of intuitive judgments. Deutsch proposes two commonalities: First, intuitive judgments are all judgments about hypothetical cases or thought experiments. Second, intuitive judgments are all judgments to the effect that something described in the case or thought experiment has or lacks some philosophically significant property.[21] Deutsch's no-theory theory is thus an examples-plus-commonality account of intuition. Deutsch thinks that "It offers enough, without offering too much, of an account of intuitions."

I am not entirely convinced by Deutsch's no-theory theory. The claim that examples of intuitions have commonalities and that they are easily identifiable is, I think, to offer too much of an account of intuition. One problem is identified by Cappelen: the parties to the intuition-debate do not agree on what counts as paradigm cases.[22] Another problem is that there are, as pointed out by Williamson, real-life analogies to many thought experiments.[23] Consequently, intuitions cannot be restricted to hypothetical cases. It seems unreasonable,

[20] Deutsch, 2015, p. 29.
[21] Deutsch, 2015, p. 25.
[22] See Cappelen on page 52-55 in *Philosophy without Intuition*.
[23] Williamson, 2015, p. 5.

therefore, to expect readers to be capable of identifying intuitive judgments once they encounter one.

These obstacles can, however, be relatively easily sidestepped. The no-theory theory does not need, it seems, to include the commonality-claim. Neither does it need to claim that we all (or most of us) agree on examples of intuitive judgments. Nor does there seem to be any need to trust readers' ability to recognize, on their own, what the intuitive judgment is supposed to be. It seems that the evidential role of intuition can be evaluated in the following way: Take a judgment that philosophers have labeled intuitive. Ask what role this particular judgment plays in the particular text in question. Does the text in question depend on treating the judgment (labeled intuitive by some philosophers) as evidence?

Deutsch's penchant for avoiding conceptual analysis of intuition is easy to sympathize with. If nothing more than agnosticism is called for, then I agree that we should remain agnostic. Surprisingly, however, Deutsch does not make use of his no-theory theory when examining actual thought experiments. Deutsch does not present textual evidence indicating that the *judgments* that philosophers have labeled intuitions serve an evidential role in the thought experiments he examines. Instead, Deutsch's textual evidence takes the form of observations such as "the philosopher presenting the case does not use "intuition" or cognates in the presentation."[24] This is about the only form of textual evidence presented by Deutsch to the effect that intuitions do not serve an evidential role in philosophy. On the basis of that evidence, conclusions such as the following are drawn: "The idea that philosophy relies on intuitions as evidence is a myth, an enduring and fairly widely held, yet entirely false, belief about the methods of philosophy."[25] Deutsch has not, however, presented textual evidence that supports this kind of conclusions. What Deutsch' empirical data shows, is that authors of eight thought experiments do not clearly state that they are appealing to intuition as evidence.

That is bad news for Deutsch's eliminative project. The evidence produced is not, even by Deutsch' own standards, strong evidence to the effect that intuitions do not serve an evidential role in philosophy. Consider the following remark by Deutsch concerning the possibility of philosophers being mistaken about their own methodology: "Some philosophers are methodologically confused. Sometimes they are confused to the point that, even when explicitly addressing the question of how philosophy is done, they mischaracterize their own

[24] Deutsch, 2015, p. 170.
[25] Deutsch, 2015, xii.

methods."[26] It seems, then, that we should not conclude that a lack of explicit appeal to intuition is evidence against the claim that intuitions serve an evidential role in philosophy.

That the authors of eight thought experiments do not explicitly *say* that they are relying on intuitions for evidence is not, however, the only remark Deutsch makes on the basis of his case studies. A second observation (that will be examined in more detail in Chapter 3) is that philosophers argue for the claims they make about thought experiments. This, Deutsch assumes, is strong textual evidence against *implicit appeals to intuition*. In making that assumption, Deutsch appears to adopt a principle according to which evidence to the effect that arguments serve an evidential role in thought experiments excludes the possibility of intuitions *also* playing an evidential role. After illustrating that there is an argument in Edmund Gettier famous article, for instance, Deutsch concludes that "the fact that this argument is present in Gettiers' very short paper […] shows that the view of the nature of analytic philosophy that takes it to rely heavily on intuitions as evidence is almost certainly mistaken."[27]

This is not, in my opinion, sufficient evidence against implicit reliance on intuition. I agree with Bengson (2014) and Chalmers (2014): assuming that the presence of arguments constitute evidence against the presence of intuitions is to presupposes a false conflict between arguments and intuitions.[28] Arguments and intuitions can have evidential roles that are "friendly, even complementary; it is certainly not competitive or mutually excluding."[29]

We should not, therefore, take Deutsch's textual evidence to show that philosophers do not treat intuitions as evidence when doing thought experiments. Thus understood, Deutsch's negative project is unsuccessful. However, that does not diminish the importance of Deutsch's *positive* project. Philosophers do, as I will illustrate in Chapter 3, argue for their claims about what's true in thought experiments. From this we can conclude that intuitions do not serve a *central* evidential role in thought experiments. We can be justified in holding our claims about thought experiments without appealing to intuitions as evidence.

1.3 Cappelen's Intuition-features

Cappelen's textual evidence is, in my opinion, more convincing than the textual evidence produced by Deutsch. In his case studies, Cappelen does more than merely consider what the

[26] Deutsch, 2015, p. 39.
[27] Deutsch, 2015, p. 82.
[28] The objection is made by Bengson (2014) and Chalmers (2014).
[29] Bengson, 2014, p. 572.

author of the thought experiment says. Cappelen also puts weight on what the author *does* and what the author *would have* been doing if intuitions played an evidential role in the thought experiment. In addition, Cappelen heeds the literature triggered by the thought experiments he examines. He takes it to be of importance whether or not the relevant literature focuses on the alleged use of intuition as evidence in the original thought experiment.

Cappelen's method for detecting appeals to intuition differs from that of Deutsch. Cappelen's strategy can be summarized in four steps. Step one: read the relevant intuition literature. Step two: identify the features that different intuition-theorists claim intuitions to have. Step three: having identified a vast number of (plausibly highly diverse) features, identify the 'core features' (narrow the list down to what the vast majority of intuition theorists agree on). Step four: look to the texts. Are judgments with any of these core features treated as evidence? Based on the intuition literature, Cappelen identifies three core features:[30]

F1: Intuitions have a distinct phenomenology
F2: Intuitions are based entirely on conceptual competence
F3: Intuitions have a special epistemic status (rock)

Cappelen goes on to argue that providing evidence of absence of these intuition-features is evidence against the claim that philosophers appeal to intuition as evidence.[31] After going through a total of eleven cases, he concludes that none of the thought experiments examined rely on anything satisfying the three intuition features: "if you read the text carefully and don't add to what's there, you'll find no evidence of presence of F1-F3."[32]Accordingly, Cappelen concludes, philosophers do not appeal to intuition as evidence.

Some intuition-theorists have agreed that Cappelen's proposed method is a good way of detecting appeals to intuitions. However, the majority of commentators have concluded that Cappelen's attempt of identifying intuitions has been unsuccessful. Most objections target Cappelen's third step. According to this objection, Cappelen's case studies have not been successful in establishing that intuitions are not appealed to as evidence due to an an unsuccessful attempt at operationalizing intuitiveness.[33] The three intuition-features are not doing what they are purported to do; none of them capture the core of what philosophers in the intuition literature understand intuitions to be.[34] As a result, the fact that Cappelen cannot

[30] See Cappelen, 2012, chapter 7.
[31] That does not mean that detecting one or several of these features is evidence for appeals to intuition.
[32] Cappelen, 2012, p. 131.
[33] The objection is leveled by Chalmers (2014), Bengson (2014), Nado (2016 ,2017), Weinberg (2014)
[34] Chalmers, 2014, p. 536.

detect judgments with the three features serving an evidential role is of little consequence. As put by Weinberg: "what Cappelen argues does not exist, was something that we had no reason to think that any intuition theorists believe to exist."[35]

Based on my admittedly limited familiarity with the intuition-literature, this objection seems wrong. It appears, to me at least, that Cappelen's three intuition-features *are* core features standardly attributed to judgments that are labeled intuitive. To show that they are core features would, however, require much more textual evidence than can be produced within the limited scope of this thesis. Moreover, even if time and space permitted a broad empirical study for detecting correct core features it would not, in my opinion, be required of the intuition-denier. I agree with Cappelen on this: philosophers who endorse the view that intuitions play a central evidential role in thought experiments "[…]owe us a story about how they have convinced themselves it is true - it is their job to tell us what evidence convinced them."[36] One way the intuition-theorist can do so is by proposing different intuition-features from those suggested by Cappelen, and then demonstrate that intuition (under rival diagnostics) is standardly appealed to as evidence for judgments about thought experiments. This has not, to my knowledge, been done. Whereas there have been some attempts to offer alternative accounts of intuition, no such accounts have been followed up by textual evidence.[37]

A second group of objections leveled against Cappelen's textual evidence targets step number four. According to this objection, appeals to intuition are not something we should expect to find when searching through philosophical texts, and accordingly it is of no consequence that Cappelen does not.[38] One version of this objection claims appeals to intuitions as evidence to be implicit, in the same way that appeals to perception as evidence are often implicit.[39] If I am asked, for instance, how I know that the name of my neighbor is Mr. Garden, I would reply that I know that his name is Mr. Garden because it says so on the doorbell. It would be unnecessary to add that the reason for why I know that Mr. Garden's name is on the doorbell is because perceived it. The same could apply for intuitions about thought experiments. A philosopher could claim, on the basis of having an intuition, that

[35] Weinberg, 2014, p. 548.
[36] Cappelen, 2012, p.585.
[37] See, for instance, Weinberg (2014, 2016). Weinberg claims intuitions to be common ground propositions, and that common ground propositions are not something we should expect to find evidence for by considering philosophical texts.
[38] See, for instance, Chalmers (2014) and Weinberg (2014).
[39] A second objection is made by Chalmers. Chalmers' claim is that the best reasons for accepting the view that intuitions serves an evidential role in philosophy are not grounded, "wholly in the examination of texts. Instead, they are grounded partly in non-text-based reflection on the structure of arguments" (Chalmers, 2014, p. 542.).

something either holds or does not hold in a particular scenario outlined in a thought experiment. The fact that the philosopher does not specify that his claim about the thought experiment was rooted in intuition, does not exclude the possibility of the intuition playing an evidential role equivalent to the evidential role of perception in the doorbell-example. Neither does the lack of literature debating the evidential role of intuition in secondary literature tell us anything about whether or not this sort of implicit appeal to intuition has played an evidential role. The idea is that the role of intuition in thought experiments is so obvious that it does not need to be addressed.

If this is true, which I am inclined to think it is, Cappelen's negative project of eliminating intuitions from thought experiments is unsuccessful. Implicit appeals to intuitions as evidence may still serve an evidential role. If Cappelen's positive project succeeds, however, that role will not be a central evidential one. Our judgments about thought experiments can be justified without implicit appeals to intuition as evidence.

The conclusions drawn by Cappelen and Deutsch are, as we have seen, typically of the radical sort. Cappelen claims himself to show "very conclusively" that intuitions are not playing any evidential roles in philosophy.[40] Deutsch claims that, as we saw above, the view that philosophers appeal to intuition as evidence amounts to a myth. Once we look more closely, however, we find examples of Cappelen and Deutsch making more humble conclusions. In a footnote, for instance, Deutsch writes:

> I should say, however, that I do not take this to be conclusive evidence that intuitions are not being appealed to as evidence in these presentations. What I do think is that the lack of intuition-terminology shifts the burden of proof to those inclined to see evidential appeals to intuitions in these presentations: if there are implicit such appeals in the relevant presentations, then the burden, given the lack of explicit appeals, is on my opponent to demonstrate this.[41]

This conclusion is, in my opinion, almost correct. The reason why the burden of proof shifts is not, however, primarily because evidence against explicit appeals to intuition is provided. The reason intuition-theorists are no longer entitled to assume, without evidence, that intuitions serve a *central* evidential role in thought experiments is due to Cappelen and Deutsch's positive project. Philosophers offer arguments for the claims they make about thought experiments. Because they offer arguments, they do not have to appeal to intuitions as evidence in order to be justified in taking their judgments about thought experiments to be true. That conclusion does not claim intuitions to be eliminated. If intuitions serve an

[40] Cappelen, 2012, p. 3n.
[41] Deutsch, 2015, p. 170.

evidential role in thought experiments, then their evidential role is implicit and difficult to detect. Intuition-theorists, however, appear to see the dialectical situation differently. That intuition plays a central evidential role is, without apology, still assumed by almost all intuition-theorists. According to Nado, however, philosophers are justified in making that assumption. The reason is, as already indicated above, endorsement of the Argument from Lack of Other Obvious Options. This argument, Nado claims, pushes the burden of proof back on the intuition-denier.

Chapter 2- The Argument from Lack of Other Obvious Options

The alleged fact that intuition serve the role of evidence for claims we make about thought experiments is often assumed by philosophers to be obvious. Philosophers also tend to believe, reflectively or unreflectively, that claims about thought experiments are not made on the basis of ordinary sources of evidence, such as for instance perception, testimony, memory or introspection. The Argument from Lack of Other Obvious Options holds these two facts, the fact that intuitions are obvious options and the fact that other sources of evidence are not, to constitute good reason for us to assume intuition to serve the role of evidence for our judgments about thought experiments. Here is an expression of that line of reasoning due to Nado:

> When I consider the Gettier case, I surely don't have a visual experience upon which I base my subsequent belief that the protagonist of the case fails to know. Nor an auditory experience, nor a memory, nor an introspection and so forth. I seem to simply know, though I cannot say how. Invoking intuition as the evidential source at least takes a step towards an explanation of how this might be so."[42]

Nado claims the argument to be the most plausible argument available for the claim that intuitions serve an evidential role in thought experiments. Cappelen and Deutsch's failure to adequately deal with the argument, she claims, entitles philosophers to assume intuitions to

[42] Nado, 2016, p. 793.

serve an evidential role in thought experiments.[43] Jonathan Ichikawa agrees.[44] Intuition-theorists that endorse the Argument from Lack of Other Obvious Options, he argues, "escape the critique of the intuition-deniers unscathed."[45]

I don't find this to be a very strong argument. With no positive evidence to the effect that intuition serves as evidence in thought experiments, it is unclear how invoking intuition would make a difference. As Nado admits (in a footnote), invoking intuition is "not necessarily a very large step of course."[46] It seems to me, however, that invoking intuition as the evidential source *should* be a large step in order for us to be justified in claiming that it answers the Epistemological Puzzle of Thought Experimentation.[47] However, what I hope to show in this chapter is not merely the fact that the Argument from Lack of Other Obvious Options is unconvincing or unproductive. What I hope to show is that invoking intuition as evidence in lack of other evidence amounts to a fallacy. First, however, let's consider some reasons for thinking that intuitions are obvious options.

2.1 Intuition as an Obvious Option

Here is a sentence by David Chalmers that I think nicely captures how many philosophers think about the alleged evidential role of intuitions in philosophy: "I do not have a large theoretical stake in the status of intuitions, but unreflectively I find it fairly obvious that many philosophers, including myself, appeal to intuitions."[48] The belief that intuitions serve an evidential role appears to be deeply entrenched in the self-consciousness of contemporary

[43] The no-intuition view aims to undercut support for what presumably is the most plausible arguments for the assumption that intuitions are relied on as evidence in philosophy. The assumption has for a long time, however, been taken to be uncontroversial true. Accordingly, intuition-theorists have not given explicit argument for it. What is targeted by Cappelen (2012) and Deutsh (2015), then, are arguments assumed to be tacitly endorsed by proponents of intuition. Those are, on Cappelen's rendering at least, the 'Argument from Intuition-talk' and the 'Argument from Philosophical Practice'. According to Nado, however, those arguments were never the most plausible arguments for the view that intuitions are relied on as evidence in philosophy. The most plausible argument for the assumption that philosophers rely on intuition as evidence is the argument she calls 'the Argument from Lack of Other Obvious Options.' If that's true, then it does not matter much if the Argument from Intuition-talk and the Argument from Philosophical Practice are 'complete failures', as Cappelen puts it. Since the most plausible argument for an intuition-centered philosophy has not been addressed at all, the intuition-deniers have not been successful in refuting the intuition-centered picture of philosophy.

[44] Ichikawa does not, however, endorse the argument. Instead, Ichikawa agrees with Cappelen and Deutsch that philosophers do not appeal to intuitions as evidence. For further discussion of the Argument from Lack of Other Obvious Options by philosophers sympathetic to the no-intuition view, see Molyneux (2014) and Machery (2018).

[45] Ichikawa, 2013, p. 116.

[46] Nado, 2016, n793.

[47] The argument is explicitly endorsed Nado (2016), Boghossian (2014), Chalmers (2014) and Weinberg (2014) Furthermore, the argument is claimed to be at least tacitly endorsed by most intuition-theorists by Nado (2016, p. 793) and by Ichikawa (2013).

[48] Chalmers, 2014, p. 535.

analytic philosophers. Very few philosophers have questioned the assumption. In this section I consider two reasons for why that might be so.

One reason for taking it to be obvious that intuition serve an evidential role in thought experiments was pointed out by Boghossian in the paragraph quoted in the introduction. The fact that philosophers often claim themselves and their colleagues to treat intuitions as evidence (their 'almost obsessive talk of intuition') does give us a reason for thinking that philosophers appeal to intuition as evidence when doing thought experiments. Consider the following quote from Saul Kripke:

> Of course, some philosophers think that something's having intuitive content is very inconclusive evidence in favor of it. I think it is very heavy evidence in favor of anything, myself. I really don't know, in a way, what more conclusive evidence one can have about anything, ultimately speaking.[49]

Reading an astute philosopher like Kripke claim intuition to be the most conclusive evidence one can have about anything, undeniably makes the claim that philosophers do not treat intuitions as evidence hard to withstand. Indeed, the boldness of the suggestion that we judge Kripke (and other philosophers claiming themselves to be in the business of appealing to intuition as evidence) to be methodologically confused might make many agree, without textual evidence, that intuitions play an evidential role in philosophy. It seems that we should take Kripke and other philosophers claiming themselves to appeal to intuition as evidence on their word.

A second reason for thinking that intuition serve an evidential role in thought experiments is the following: Thought experiment beliefs are, by many, assumed to be accompanied by *a feeling of a special kind*. As put by Gendler, most seem to agree that thought experiment beliefs "does not feel like inference from known premises to inductively or deductively implied conclusions."[50] Moreover, the considering of a thought experiment appears to feel different from testimony. Reaching a judgment regarding Thomson's violin case, for instance, feels different from being told that the president of Guatemala is against abortion. The same appears true for perception. Considering Searle's Chinese Room feels different from looking at a map to see where in China the city Wuhan is located. One reason why we suspect intuition, and not argumentation, perception or testimony, then, might be the following. Intuitions are assumed to be characterized by a special phenomenology. Platinga,

[49] Kripke, 1980, p. 42.
[50] Gendler, 2010, p. 43.

for instance, describes intuitions to have "that peculiar form of phenomenology with which we are all well acquainted, but which I can't describe in any way other than as the phenomenology that goes with seeing that such a proposition is true.[51] The same special feeling is described by George Bealer when he writes that a case, when it is first considered, often seems neither true nor false. "After a moment's reflection, however, something happens: it now seems true; you suddenly "just see" that it is true."[52] This is, I think, what Nado is getting at too when she writes that she seems "to simply know" that the protagonist in the Gettier case does not know, "thought she cannot say how."[53] On this interpretation, then, intuition presents itself as an obvious option because it appears to be the only option capable of accounting for the characteristic phenomenology of thought experiment beliefs.

2.2 Why we Should not Invoke Intuitions as the Evidential Source

The two facts about intuition just outlined give us good reason to suspect intuition to serve an evidential role in thought experiments. To say that we have good reason to believe that intuition play an evidential role in thought experiments is, however, different from concluding that intuitions, as a matter of fact, serve the role of evidence for thought experiment claims. Consider the following analogy: Mrs. Garden is found murdered. Mr. Garden is a weird-acting guy with a dubious reputation; friends and neighbors of the Gardens depict him as having a wife-killing vibe. Moreover, Mr. and Mrs. Garden mainly kept to themselves. This makes Mr. Garden the prime suspect in the murder case. There are no other obvious suspects. The police thus conclude that Mr. Garden killed his wife.

The police appear to be committing a fallacy here. The fact that there are no other obvious suspects is not evidence to the effect that Mr. Garden murdered his wife. Mrs. Garden could have had enemies, she could have been the victim of an accident, or she could have been the victim of a serial killer. These may not be obvious options, but the police would nevertheless be wrong to exclude them. A lack of other obvious suspects should not result in the police sending Mr. Garden to jail without further evidence. Convicting the husband of murder might well be a step *away* from a solution to the murder-case; not a step towards it.

The analogy makes clear, I hope, why we should reject the Argument from Lack of Other Obvious Options. Being short of obvious options is not to be short of possible options. Non-obvious sources of evidence could be at play in thought experiments. Just as other

[51] Platinga, 1993, pp. 105-106.
[52] Bealer, 1996, p 5.
[53] Nado, 2016, p. 793.

candidates ought to be considered in the murder-case, more alternatives ought to be investigated before a conclusion regarding the Epistemological Puzzle of Thought Experimentation is to be drawn.

To say that there may be other options is not, however, to deny that intuition is an *obvious* option. The fact that Mr. Garden was the only person Mrs. Garden was known to interact with, combined with his weird behavior and his somewhat dubious reputation does make him an obvious suspect in our murder case. The claim I am making, however, is that the facts about Mr. Garden and the facts about intuitions are insufficient for drawing conclusions regarding the murder case and the Epistemological Puzzle of Thought Experimentation. To see this, let's consider the two facts that make up our reason for judging intuition to be the primary suspect in some more detail.

2.3 The Argument from Intuition-talk

What kind of evidence would we need in order to be justified in charging Mr. Garden with murder? We may insist that some evidence linking Mr. Garden to the crime scene is required. This would, it seems, be analogous to Cappelen's and Deutsch's insistence that we consider the textual evidence when answering the question of what serves the role of evidence for thought experiment beliefs. Thus understood, Cappelen's and Deutsch's case studies appear to be analogous to empirical investigation done at the crime scene in our murder case. Moreover, their claim that lack of textual evidence is evidence to the effect that intuition does not serve an evidential role in thought experiments appears to be analogous to the claim that not finding empirical evidence linking Mr. Garden to the murder of Mrs. Garden would get Mr. Garden off the hook. What if, however, Mr. Garden was to admit that he killed his wife? Would the fact that we have no empirical evidence linking Mr. Garden to the crime scene be of importance?

It seems that empirical evidence becomes less important in the case of a confession. This bears on the main issue in the following way: it seems that Kripke describing himself as appealing to intuitions as evidence is analogous to Mr. Garden describing himself as being guilty of murder. If so, we appear to be justified, despite lack of textual evidence, in concluding that Kripke and other philosophers self-describing as being in the business of appealing to intuition as evidence indeed *are* appealing to intuition as evidence.

This seems, at least on first glance, to be a serious problem for the no-intuition view. What can be said in response?

First, there is a fairly obvious way in which murders and thought experiments are not analogous. People are usually quite confident as to whether they have killed their significant other or not. It seems fair to say, however, that philosophers are not equally well aware of what they are doing when they are doing philosophy. As pointed out by Cappelen and Deutsch, philosophers tend to be wrong about what they do when they are doing philosophy. Whereas we might not be as comfortable as Cappelen and Deutsch in claiming philosophers to be methodologically confused, it seems correct to say that a philosopher is not as good as an authority on the question of whether she is appealing to intuition, as a murder suspect would be on the question of whether or not he committed the crime he is under investigation for.[54] So, whereas we might agree that Mr. Garden's confession licenses us to charge Mr. Garden with murder, despite a lack of evidence linking him to the crime scene, we may nevertheless object that philosophers' intuition-talk does not give us sufficient reason to assume, without textual evidence, that intuitions play an evidential role in philosophy.

Second, although some philosophers describe themselves and their colleagues as being in the business of appealing to intuition as evidence, authors of famous thought experiments typically do not. Neither of the authors of the eighteen thought experiments examined by Cappelen and Deutsch, for instance, say that they rely on intuitions as evidence for the claims they make about their thought experiments. Indeed, some philosophers even deny that they depend on intuitions as evidence when they are doing thought experiments.[55] What seems to be a common pattern is, instead, that the method of appealing to intuition as evidence is ascribed to the authors of thought experiments later on, by other people in the profession. Hence, the analogy above no longer apply. Intuition-talk is not, in these cases, analogous to a confession. Philosophers' intuition-talk appear instead to be analogous to something like town gossip in a murder case. If so, philosophers' intuition-talk should not count for much more than town-gossip in a murder case. We should, of course, care about the opinions of those who knew Mr. and Mrs. Garden. If most people will have it that Mr. Garden murdered his wife, that gives us some reason to suspect Mr. Garden. Most people believing Mr. Garden to be a wife-killer is not, however, sufficient evidence for his guilt. The same goes for intuition-

[54] It should be mentioned that people sometimes (although very rarely) confess to murders they have not committed. The murder of Elizabeth Short (Black Dahlia), for instance, resulted in thirty different men pledging guilt. Another example is Thomas Quick, who went to jail for eight murders that he did not commit.
[55] As we will see in Chapter 3, Lehrer denies that he was relying on intuitions about the Truetemp case in rejecting Reliabilism. Another example: Searle explicitly denies in his 'Author's response' from 1980 that the Chinese room argument relies on intuition as evidence (Searle, 1980, p. 451).

talk. We want our answer to the Epistemological Puzzle of Thought Experimentation to be based on more than descriptions and self-descriptions found in philosophical literature.

Finally, regardless of whether we take intuition-talk to constitute evidence to the effect that intuition serve an evidential role in thought experiments, that should not prevent us from considering other alternatives. Even if it turned out that intuitions were doing an evidential role in thought experiments, that does not exclude the possibility of other sources of evidence doing evidential work. We want to investigate the possibility of there being multiple sources at play.[56]

2.4 Special Phenomenology

What about the so-called special phenomenology of thought experiment beliefs? Can we conclude, without textual evidence, that intuitions serve an evidential role in thought experiments on the basis of the alleged fact that thought experiment beliefs come with a special phenomenology? I think the answer is no.

At least two routes of response are available. First, we can deny, with Cappelen and Williamson, that thought experiment beliefs come with a special phenomenology. That would be to deny that intuition is an obvious option. Second, we can grant (if only for sake of argument) that its special phenomenology makes intuition an obvious option but deny that this is relevant. In our analogy, the two options amount to something like the following: deny that Mr. Garden has a weird appearance, or deny that Mr. Garden's appearance is of relevancy to whether or not he killed his wife. The latter option seems more fruitful in our murder case. Looking for people with personalities that fits the bill of a murderer is something we stopped doing a long time ago. People who appear perfectly normal can suddenly kill their neighbor. If we limit our suspects to only those having the personality of a murderer (whatever that means), we might not catch our killer. We don't send a husband to jail for seeming dubious or because most people think he killed his wife. Better evidence is required. Likewise, we should not draw the conclusion, without further evidence, that intuition serve as evidence in thought experiments. If we require that the correct reply to the Epistemological Puzzle of Thought Experimentation must account for the so-called special phenomenology of thought experiment beliefs, we may not find the right answer.

[56] To have one suspect admit guilt is not enough to close a murder case. We want to know whether our killer acted on his own, or whether more people were involved in the murder.

Chapter 3- Arguments as Evidence

Cappelen and Deutsch are more than mere troublemakers in the debate over how claims about thought experiments are justified. There is, as already indicated, more to the no-intuition view than the negative project of eliminating intuitions. Here's an expression of the positive contribution due to Deutsch:

> Analytic philosophy is chock-full of hypothetical examples and thought experiments, of course, but analytic philosophers argue for their claims about what is or is not true in these cases and thought experiments. It is these arguments, not intuitions, that are, and should be, treated as evidence for the claims.[57]

Cappelen's and Deutsch' positive project, if successful, equips us with a reply to the Argument from Lack of Other Obvious Options. If arguments serve as evidence for claims about thought experiments, it is not true that intuition is the only viable candidate for serving the role of evidence for claims made about thought experiments.

Intuition-theorist are not, however, convinced by this positive contribution. Colaço and Machery, for instance, agree that philosophers *sometimes* support their assessments of thought experiments with arguments, but doubt that this is true in general.[58] The same claim is made by Jonathan Weinberg and Joshua Alexander:

> Philosophical discussions often involve appeals to verdicts about particular cases, sometimes actual, more often hypothetical, and usually with little or no substantive argument in their defense. Philosophers- including those on both sides of debates over the standing of this practice- have very often called the basis for such appeals "intuitions."[59]

Hence, we have two clashing empirical claims about how philosophers typically justify their claims about thought experiments.[60] Cappelen and Deutsch's empirical claim is, however, supported by textual evidence. Unlike with the textual evidence against philosophers' reliance on intuition, I find the textual evidence for philosophers' reliance on arguments convincing. Detecting arguments in a text is, fortunately, far less complicated than detecting appeals to intuition as evidence in a text.

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[57] Deutsch, 2015, XV.
[58] Colaço and Machery, 2017, p. 411.
[59] Weinberg and Alexander, 2014, p. 187.
[60] Notice how broad the empirical questions of whether philosophers *typically* back their claims about thought experiments with arguments or not is. In this text, I cannot possibly hope to make good on the claim that they do. To make a plausible case to the effect that most philosophers trade in arguments and not in intuition would require careful investigation of more thought experiments than what the limited scope of this thesis allow.

Critics claim, however, that the evidence produced by Cappelen and Deutsch is unconvincing. In hope of refuting that objection, I will spend some time in this chapter elaborating on the textual evidence provided for one of the eighteen thought experiments discussed by Cappelen and Deutsch. For reasons outlined below, I will focus on Keith Lehrer's Truetemp case. I begin, in Section 3.1, by giving an outline of the thought experiment.[61] In Section 3.2, I make a case to the effect that Lehrer is arguing for the claim he makes about his thought experiment. In Section 3.3, I consider a second objection. I will call the objection, following Deutsch, 'the Relocation Problem'. The Relocation Problem is, in essence, the worry that intuitions are not (or even cannot) be eliminated from thought experiments. All that is illustrated by Cappelen and Deutsch, the objection goes, is that there is, at best, no appeal to intuition as evidence at *a particular level.* For even if one grants that it is not intuition but arguments that justify claims about thought experiments, one may still be worried about the premises in those arguments. How do we know that the premises in an argument for a claim about thought experiments are true? A response, suggested by both intuition-friendly and intuition-hostile philosophers is that "in many cases the premises in philosophical arguments are based on intuition."[62] I will offer an alternative response. I will argue that what justifies the premises in arguments for claims about thought experiments is *further argumentation*. Philosophers give reasons for their judgments about thought experiments, and then they give reasons for those reasons too.

3.1 The Truetemp Case

Keith Lehrer's Truetemp case is a particularly good case for discussion for at least three reasons. First, the text in which the thought experiment in question features is a work on epistemology; a subfield of philosophy commonly assumed to be particularly intuition-deploying. Second, the Truetemp case is an example frequently described (by both intuition-friendly and intuition-hostile philosophers) as a paradigmatic example of a philosopher appealing to intuition as evidence against a philosophical theory. Third, and most importantly for our purposes, philosophers do not agree on the question of whether Lehrer is arguing for the claims he makes about his thought experiment. Whereas Cappelen and Deutsch say we should read Lehrer as arguing for his claim about the Truetemp case, intuition-friendly

[61] In hope of creating some continuity for the reader, I will center the focus of the discussion in both this chapter and in the next around this particular thought experiment.
[62] Bengson, 2014, p. 571.

philosophers have claimed it to be more charitable to not read Lehrer as marshalling an argument.[63]

Lehrer introduces the 'Truetemp case' in the context of arguing against Reliabilism, a view according to which reliably produced true beliefs constitute knowledge.[64] Lehrer presents his thought experiment in the following way:

> Suppose a person, whom we shall name Mr. Truetemp, undergoes brain surgery by an experimental surgeon who invents a small device which is both a very accurate thermometer and a computational device capable of generating thoughts. The device, call it a tempucomp, is implanted in Truetemp's head so that the very tip of the device, no larger than the head of a pin, sits unnoticed on his scalp and acts as a sensor to transmit information about the temperature to the computational system of his brain. The device, in turn, sends a message to his brain causing him to think of the temperature recorded by the external sensor. Assume that the tempcomp is very reliable, and so his thought are correct temperature thoughts. All told, this is a reliable belief-forming process. Now imagine, finally, that he has no idea that the tempucomp has been inserted in his brain, is only slightly puzzled about why he thinks so obsessively about the temperature, but never checks a thermometer to determine whether these thoughts about the temperature is correct. He accepts them unreflectively, another effect of the tempucomp. Thus, he thinks and accepts that the temperature is 104 degrees. Does he know that it is?[65]

Lehrer goes on to answer the question negatively. Mr. Truetemp does not know.

The claim that Mr. Truetemp does not know is standardly taken to carry significant implications. According to Reliabilist theories of knowledge, we ought to attribute knowledge to persons that truly believes on the basis of a reliable belief-forming process. Mr. Truetemp's true temperature-beliefs *are* formed on the basis of a reliable belief-forming process. Reliabilism hence predicts the Truetemp case to be an instance that we would classify as knowledge. We do not, however, classify the Truetemp case as an instance of knowledge. Accordingly, we have a counterexample to Reliabilism.

At this point, our epistemological puzzle arises. Our situation appears to be this: Without the input of new empirical information, Lehrer's thought experiment has generated a belief in us that is both new and justified. This new belief appears to have an astonishingly effective evidential force. Confronted with this one imaginary case, one of the most widely endorsed theories of knowledge appears to have collapsed entirely. The questions thus arise:

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[63] We may add that Lehrer's thought experiment often features in contemporary metaphilosophical debate. See for instance, Sosa (2007), Swan et alt. (2008), Cappelen (2012), Ichikawa (2013), Deutsch (2015), Boghossian (2014), Weinberg (2014) and Nado (2016).
[64] In *A theory of Knowledge*, first published in 1990.
[65] Lehrer, 1990, pp. 163-164.

What is the source of our thought experiment belief? What reason do we have to take the thought experiment belief to constitute evidence against Reliabilism?

According to intuition-theorists, the only viable explanation for how we can be justified in treating the judgment that Mr. Truetemp does not know to be true is that the judgment is an intuition. The idea is that the alleged fact that it is intuitive that Mr. Truetemp does not know constitute evidence for the epistemic claim that Mr. Truetemp does not know. That claim is in turn thought to be evidence against Reliabilism.

This intuition-centered account of the Truetemp case is rejected by the no-intuition view. There are no appeals to intuition as evidence in the Truetemp case. As put by Cappelen: "Anyone who thinks this either hasn't read the text carefully or has misinterpreted it."[66] What plays the justificatory role in Lehrer's text is instead, Cappelen and Deutsch maintain, arguments. [67] Cappelen (2012) suggest the following argument to be the *most central* argument for the claim that Truetemp does not know:

> P1: More than possession of correct information is required for knowledge. One must have some way of knowing that the information is correct.
> P2: Truetemp has no way of knowing that the information is correct
> C: Truetemp does not know

Critics are, however, unperturbed. To read Lehrer as adducing an argument in favor of his thought experiment judgment is, they maintain, an implausible reading.[68] I think the critics are mistaken: Lehrer's rejection of Reliabilism is based on arguments, not intuitions about the Truetemp case.

3.2 Is Lehrer Making an Argument?

According to several intuition-theorists, Lehrer's thought experiment is "better understood as Lehrer helping draw our attention to what he takes to be aspects of the case that will produce the relevant cognitive response in us." [69] The case "helps us have the intuition Lehrer has."[70]

Why would Lehrer *not* make an argument, but aim to produce intuitions in his readers, instead? On the intuition-centered account of thought experiments, a theory is plausible to the extent that it is able to account for 'our' intuitions about cases that are relevant to the topic in

[66] Cappelen, 2012, p. 167.
[67] See Deutsch page 112 and pages177-178 of Deutsch's book for more on the structure and context of Lehrer's argument.
[68] This objection is made by Weinberg (2014), Boghossian (2014) and Chudnoff (2017).
[69] Weinberg, 2014, p. 552.
[70] Chudnoff, 2017, p. 383.

question. Thus, what serves as evidence for or against a theory of knowledge is what most or all people intuit when confronted with knowledge-related thought experiments. Accordingly, if 'our' intuition indeed is that Mr. Truetemp does not know, then we do (on the intuition-centered account) have evidence to the effect that Reliabilism is false. That explains Lehrer's alleged interest in producing intuitions in his readers.

This interpretation is claimed by intuition-theorists to be more plausible, indeed even more charitable, than the interpretation according to which Lehrer is making an argument. One reason why we should not read Lehrer as marshalling an argument, intuition-theorists claim, is because the alleged argument would be a bad argument. That should, the critics claim, make us suspicious. As put by Chudnoff: "If we find ourselves attributing it to him, charity requires us to step back and ask what else might be going on." [71]

Moreover, whereas the intuition-theorist is able to account for why the thought experiment appears in the text, the intuition-denier seems to lack such an explanation. Boghossian puts the objection in the following way:

> […] it would make an absurdity of the whole point of constructing the thought experiment to think of Lehrer as arguing for the claim that Truetemp doesn't know, by helping himself to the principle that knowledge requires more than correct information. If he already thought of himself as knowing the principle, why would he need to construct an elaborate sci-fi example?[72]

The intuition-free interpretation is thus faced with two obstacles: the bad-argument objection and explaining the intended function of the Truetemp case, if the function is not generating an intuition. What can be said in response?

The correct response to the bad-argument objection is, in my opinion, to follow Deutsch in denying that the argument actually *is* a bad argument. As Deutsch points out, the argument given for the Truetemp-judgment is not meant to stand on its own. The argument is accompanied by an argument from analogy and this, Deutsch claims, strengthens Lehrer's case. To this observation it should be added (and I return to this point below) that Lehrer does not take himself to *know* the principle that knowledge requires more than correct information. The principle is instead treated as an argumentative starting point throughout Lehrer's book. Accordingly, Boghossian's complaint misses its target.

One need not, however, agree that Lehrer provides convincing arguments in order to dismantle the bad-argument objection. Another avenue of response open to the intuition-

[71] Chudnoff, 2017, p. 381.
[72] Boghossian, 2014, p. 377.

denier is to question the relevancy of the bad-argument objection. For if premises are articulated in the text, and conclusions are drawn from these premises, then there is an argument in the text. Regardless of the quality of that argument, we thus have textual evidence to the effect that it is argument, not intuition that is supposed to do the justificatory work. Whether the arguments do that well or not seems to be beside the point.

What about the second obstacle? The most plausible answer is, I think, that Lehrer thought of the Truetemp case as fulfilling an illustrative function. Lehrer explicitly describes his thought experiment (and other thought experiments appealed to throughout his book) as being illustrative. Here is Lehrer: "A person totally ignorant of the reliability of the process producing his belief would not know that what he believes is true, even if he had no information that would undermine his belief. *The example of Mr. Truetemp illustrates this perfectly"*[73]

Hence, intuition deniers do have an answer to the question of why Lehrer constructs an elaborate sci-fi example.[74] As a result, we are left with two interpretations. How do we determine whether Lehrer's thought experiment is illustrating a principle already argued for or whether he is instead constructing the thought experiment in order to trigger relevant intuitions in readers?

An obvious possibility suggest itself: just ask Lehrer what role he intended his thought experiment to play. If we treat Lehrer as the authority on the question, we have ample reason to abandon the intuition-centered reading. First, at several instances, Lehrer describes himself as being in the business of assessing arguments. For instance, immediately after presenting what Cappelen assumes to be the most central argument in the text, Lehrer reminds the reader that "this line of argumentation we have already encountered, in earlier chapters."[75] Second, immediately after presenting the Truetemp case, Lehrer explicitly says that the example is not meant as a decisive objection and that it should not be taken as such either.[76] Lehrer then goes on to claim that the force of his principle (that is, the principle that serves as a premise in Lehrer's most central argument on Cappelen's reading) does not depend on whether the Truetemp case constitutes a decisive objection or not. *That* statement is in direct conflict with the intuition-centered account. For according to the intuition-theorist, Lehrer's rejection of Reliabilism rests *solely* on intuitions about the thought experiment. Lehrer claims, however,

[73] Lehrer, 1990, p. 165. My emphasis.
[74] Boghossian, 2014, p. 377.
[75] Lehrer, 1990, p. 164.
[76] Lehrer, 1990, p 164.

that the fundamental issue remains regardless of the force of the thought experiment. Finally, Cappelen confirms that in conversation, Lehrer denies that he is relying on an intuition and confirms that he thought of himself as making an argument.[77] In conclusion: if Lehrer's thought experiment has the function of generating intuitions, then this fact is and has been opaque to Lehrer himself.

One may object, however, that philosophers are not always the best authority on the question of what, as a matter of fact, they are doing when they do philosophy. Even if we discard these reasons on the basis of the possibility of Lehrer being methodologically confused, however, there is reason to prefer the interpretation according to which Lehrer is making an argument. For even if Lehrer believed his thought experiment to generate the relevant intuition, it would be strange for him to stop there. Why wouldn't he also adduce arguments in favor of his judgment? Philosophers usually attempt for their conclusions to be copiously supported. To offer just *one* consideration (that the judgment is either intuitive or not) is not to offer strong evidence. We should expect more of a clearheaded philosopher such as Lehrer, and the fact that the intuition-based reading of the Truetemp case makes Lehrer's rejection come out this flimsy should, I think, make us skeptical of the intuition-based reading. Moreover, we may question whether there is a difference between an author helping the reader to a conclusion by means of pointing the reader to relevant aspects of a case and an author helping the reader to a conclusion by means of spelling out some premises. It is unclear, at least to me, what the difference between the articulation of relevant aspects and the articulation of premises in an argument is supposed to be.

In any case, I find premises and I find conclusions drawn on the basis of premises in Lehrer's text, as do Cappelen and Deutsch. Perhaps we claim to identify something that is not really there, but for reasons just outlined I find it reasonable to assume that there are arguments in Lehrer's text. In what follows I take a closer look at one of those arguments and ask what justification there is for holding the premises in that argument to be true.

3.3 The Relocation Problem

According to the Relocation Problem, evidence to the effect that it is arguments not intuitions that serve as evidence in philosophical texts is not enough to conclude that intuitions do not play an evidential role in thought experiments. For there is still a suspicion that intuition

[77] Personal correspondence.

might play an evidential role somewhere else in the chain of evidence. The Relocation Problem is put by Ichikawa in the following way:

> Cappelen is quick to emphasize that there are arguments underwriting my judgment about Mr. Truetemp- but arguments proceed on the basis of premises, and what story are we to tell about my epistemic access to the relevant premises? (...) Insofar as it doesn't seem very plausible that perceptual experience can ultimately be establishing the premises from which I can conclude that Mr Truetemp does not know, one might be tempted to think that it must be some other kind of experience, which plays a similar role to that of perceptual experience.[78]

Here is Nado leveling the same objection:

> How does Cappelen's characterization do anything more than push the problem back one step? The principle that Cappelen takes to be a premise is in just as much need of justification as the claim that Mr. Truetemp does not know. How is it to be justified, other than via intuition?[79]

Assuming the burden of proof to be on the intuition-denier, Nado goes on to challenge defenders of the no-intuition view to offer a plausible alternate source of justification.[80] In order to dispel the Relocation problem, Nado claims, the intuition-denier must provide a plausible alternate story about what justifies the premises in the arguments for the judgment about Lehrer's though experiment.

That challenge can, in my opinion, be met. Indeed, a reply to the relocation problem can be found in the wider context of Lehrer's book. Once we consider Lehrer's argument as a whole, and not merely the few passages in which the Truetemp case appears, we see that *further argumentation* is what establishes the premises of Lehrer's arguments against Reliabilism.

Let's take a closer look at Lehrer's most central argument concerning Mr. Truetemp, as proposed by Cappelen. According to the second premise, *Mr. Truetemp has no way of knowing that the information he receives is true.* Note, that this is merely a feature of the case. Mr. Truetemp is described as having no idea that a device was implanted in his head, he is described as not ever checking whether his temperature thoughts are correct, and his unreflective acceptance of temperature thoughts is described as an effect of the device. What is important for our purposes, however, is that Lehrer nevertheless offers reasons in support of this premise. Lehrer explicitly states that Mr. Truetemp "did not consider any evidence

[78] Ichikawa, 2013, p. 115-116.
[79] Nado, 2016, p. 796.
[80] Nado grants that the thought experiment judgment in question is supported by arguments, but doubt that the premises of those arguments have intuition-free sources of evidence.

concerning the matter, and *that is why* he does not know that his thoughts about the temperature are correct." [81]

Lehrer's first premise has been the more contentious one: *More than possession of correct information is required for knowledge. One must have some way of knowing that the information is correct*. Both Nado, Boghossian and Ichikawa claim this principle to be entirely unsupported. They are, to some extent, right. The objection nevertheless misses its mark. This is because the objectors fail to recognize what Lehrer is really trying to do in *A Theory of Knowledge*. Lehrer is not aiming to establish the principle that more than correct information is required for knowledge. This principle is taken for granted throughout his book.

Here's how Lehrer helps himself to the premise. In Chapter 1, Lehrer points out that there are multiple sorts of knowledge. Accordingly, to seek a general analysis of knowledge is to set oneself a too unspecific goal. One ought to, as Lehrer points out, specify what sort of knowledge one's analysis of knowledge is an analysis of, prior to inquiry. Lehrer does so already at page 3 in his book, where he makes clear that he will be concerned with *knowledge in the sense associated with scientific inquiry*.[82] In order to do science well, he maintains, it is not enough to merely have correct information. To make progress in science, Lehrer writes, "one must be able to tell whether one has received correct information or not." [83]

According to the objectors, Lehrer's principle must be rooted in intuition because it cannot be the case that Lehrer just "help himself" to the principle. But Lehrer does "help himself" to the principle; he takes it for granted that his readers will be interested in the sense of know "that in which 'to know' means to recognize something as information."[84] Lehrer need not, then, appeal to intuition as evidence for his thought experiment judgment. The judgment that Mr. Truetemp does not know is justified in virtue of being based on an argument in which the first premise is an argumentative starting point and where the second finds support in the text. This more holistic reading of the thought experiments gives us a clue as to what the function of Lehrer's thought experiment may be. The thought experiment seems to have, at least primarily, an illustrative function. If we accept that more than correct information is required for knowledge (of the type central to science), what follows? What the

[81] Lehrer, p. 165. My emphasis.
[82] Lehrer takes the type of knowledge analyzed in his book to be a "more significant kind of knowledge" as compared to other sorts of knowledge. This is primarily due to its practical role. Analyzing the sort of knowledge required for science is, Lehrer assumes, more important than analyzing other sorts of knowledge.
[83] Lehrer, 1990, p. 4.
[84] Lehrer, 1990, p. 3.

Truetemp case successfully illustrates is, I think, that Reliabilism is not a theory of knowledge consistent with the scientific sense of knowledge according to which more than correct information is required for knowledge. This result is, if my reading is correct, attained without appeal to intuition as evidence.[85]

Chapter 4– Justified Thought Experiment Judgments

The view outlined thus far emphasizes the importance of considering the contexts in which thought experiments occur. It illustrates that once we do, we see that philosophers' claims about thought experiments are argued for. The new knowledge acquired in a thought experiment situation is thus deductively implied by arguments marshalled by the author of the thought experiment. To say that thought experiment judgments are justified in virtue of being based on argument is not, however, to say that *readers* form their thought experiment beliefs on the basis of considering an argument. More typically, it seems, we form thought experiment beliefs on the basis of considering thought experiments in isolation from arguments. When doing so, we normally take ourselves to be justified in holding our thought experiment beliefs to be true. We do not, it seems, need to read Lehrer's book in order to be justified in taking our belief that Mr. Truetemp does not know to be true. Hence, whereas the author of a thought experiment may primarily treat arguments as evidence for claims they made about thought experiments, the reader does not.

In response to this, we may of course deny that readers who do not form their thought experiment beliefs on the basis of arguments are justified. Although it may *feel* like we are warranted in taking our thought experiment beliefs to be true, we are not justified unless we

[85] There is nevertheless a sense in which the response is not entirely satisfying. For notice that there is a regress worry looming. A skeptic might demand more than an intuition-free answer to the question of what justifies premises in arguments for judgments about thought experiments. Even if such evidence were presented, the skeptic could continue to repeat her demand over and over again. What justifies the premises in the argument given for the premises in the argument for the judgment about the thought experiment? The skeptic can, it seems, go on indefinitely. Faced with this challenge, one seems to be left with three alternatives: i) Admit that the chain of evidence is infinite, ii) Admit that the chain of evidence is circular, then show how it is not viciously so, iii) Show that the regress can be stopped. Intuition-friendly philosophers tend to assume the third alternative. The chain of evidence must come to an end, they argue, plausibly by appealing to ultimate or fundamental premises. Assuming that "no justified thought experiment belief is the result of reasoning that terminates in a set containing just non-inferentially, non-intuitively justified beliefs" (Chudnoff, 2017, p. 378), the conclusion is drawn that these ultimate premises must be rooted in intuition. Thus, we seem to have to versions of the Relocation Problem. Call them the Approximate and the Ultimate Relocation Problem. This thesis does not say anything to block the Ultimate Relocation Problem just outlined.

are in possession of reasons for why they are true. We may add, like Deutsch does, that beliefs readers form or do not form on the basis of considering a thought experiment are irrelevant as to what plays the role of evidence in the thought experiment. If we want to know how a claim made about a thought experiment is justified, we ought to consider the perspective of the author of the thought experiment, not the reader.

I am not entirely convinced that this is the correct response. I am more inclined to believe, contra Deutsch, that beliefs formed on the basis of considering a thought experiment can provide *additional justification* for taking the content of the beliefs to be true.[86]

In this chapter, I explore three intuition-free accounts of how the considering of a thought experiment, in isolation from arguments, can give rise to additional intuition-free justification for thought experiment beliefs. According to the first account, thought experiment beliefs are justified in virtue of being based on memory. According to the second account, thought experimentation gives rise to new knowledge by means of providing a framework for systematizing tacit beliefs. According to the third account, our thought experiment beliefs are justified in virtue of being formed within a reliable process of imagining.[87]

None of the three accounts outlined below will be accompanied by textual evidence. In that sense, this chapter will be more speculative than the one above. Indeed, this chapter will be an example of the kind of philosophizing that Cappelen and Deutsch oppose in their books. Here are three excuses for omitting textual evidence. First, I agree that the views outlined in this chapter would be a lot stronger if accompanied by textual evidence. The limited timeframe of this thesis has not, however, permitted the additional project of providing textual evidence for the claims made in this chapter. Second, I am unsure as to whether appeal to judgments about thought experiments is something that one would find textual evidence of in an examination of philosophical texts. As pointed out in Chapter 1, if judgments (or intuitions) are appealed to as evidence in philosophy, the appeal is implicit and not necessarily something that would be identifiable by close readings of various philosophical texts. Third, one of the main goal of this thesis is to circumvent the Argument from Lack of Other Obvious Options. Proposing three intuition-free replies to the Epistemological Puzzle

[86] This chapter would not, I suspect, square well with Deutsch. To claim that the reader can, without having reasons, be justified in taking her thought experiment belief to be true, would in Deutsch's terminology, buying into the myth of the intuitive. I consider this objection in Chapter 5.

[87] This first account is inspired by an interpretation of Thomas Kuhn's theory of thought experiments due to Cooper (2005). The next account draws primarily on what I take to be Kuhn's actual account of thought experiments outlined in Kuhn (1964), but can also be found in Gendler (2010). The last theory is advocated by Gendler (2010) and Williamson (2007, 2015, 2018).

of Thought Experimentation is, even in lack of textual evidence, an effective way of doing that.

I also want to emphasize that the view outlined in this chapter will be part of a pluralistic account of justification for thought experiments. In hope of making clear what I take to be a plausible view of the role of judgments made about thought experiments, here is an analogy: I am allergic to pollen. By simply being outside, I can usually tell quite quickly whether or not there is pollen in the air. On the basis my experience with pollen allergy, I seem to be justified in making the claim that there is pollen in the air. Having a stuffy nose and watering eyes is not, however, the only evidence available to me. I can be justified in believing that there is pollen in the air by checking the so-called pollen forecast, by perceiving pollen in the air, or (assuming that I have the right equipment) by measuring the amount of pollen in the air.

The evidence produced by this latter method is, I take it, the best evidence available for the claim that there is pollen in the air. This is the evidence a scientist would appeal to if he was to prove that there was pollen in the air. He would not, I take it, appeal to the pollen-forecast, to her perception or to my stuffy nose. That does not change the fact that testimony, perception and felt symptoms provide *me* with justification for judging there to be pollen in the air. This kind of evidence might be less central, but it can nevertheless provide justification.

4.1 Cooper's Kuhn: Thought Experiments as Mnemonics

Here's a simple exercise. Let's say I ask you who your classmates were in 5th grade. How many names do you remember? If you are like me, you won't remember more than a few names. You nevertheless *know* who all of your classmates were. If you run into a person you once went to school with, this person is not going to be a total stranger. You remember the person even though you might not have his name on immediate recall. Now, consider the following questions. Did any of your classmates live in your neighborhood? Did you do sports with any of them? Did you play music with anyone from your class? Mnemonics of this sort might make you imagine your neighborhood, the pitch where you played football growing up, or a school musical. Plausibly, you come to remember more names. The considering of a few relevant questions help you tease out information previously forgotten.

According to Rachel Cooper, Kuhn holds a similar process to be at play when we are doing thought experiments. Thought experiments are not, on this view, tools for acquiring

new knowledge of the world. Instead, thought experiments function as a sort of mnemonic. Their narrative structure can, in some cases, trigger the memory of the reader, and thus draw out information that was previously unavailable. This provides a simple solution to the Epistemological Puzzle of Thought Experimentation.[88] Since the knowledge acquired in a thought experiment is merely retrieved knowledge, the Epistemological Puzzle of Thought Experimentation evaporates.[89]

As will become clear below, I don't think that this view is plausibly attributable to Kuhn. Thought experimentation *does*, on Kuhn's view, lead to new knowledge. I nevertheless like the idea of thought experiments as tools for drawing out forgotten knowledge. It seems plausible that the judgment that Mr. Truetemp does not know could be based on memory.

Here's the mnemonical reading of the Truetemp case: You know a lot of things about knowledge. Some of your knowledge about knowledge you know explicitly. You know, for instance, that knowledge requires a high level of certainty, and you know that some routes to knowledge are more reliable than others. Among the things you know about knowledge is, presumably, the principle that more than correct information is required for knowledge. This might not be something you know explicitly. The principle that more than correct information is required for knowledge might be forgotten knowledge.

To see the plausibility of that claim, consider the following anecdote. As a kid, I had a rhyme for remembering that seven multiplied by eight equals fifty-six. When asked about this particular equation I consistently gave the right answer. This was, however, *before* I knew how multiplication worked. I was not, for instance, in a position to figure out what six multiplied by eight was. Accordingly, my parents did not (at least I hope they did not) go around bragging about how I knew how to do multiplication. They knew that there was a distinction between knowing something and merely being in possession of right information. Indeed, most people do. It is standardly taught in school; when doing mathematics in elementary school, for instance, one is taught that having the correct answer does not count for much unless one can "show the work".

When you are asked to consider the Truetemp case, then, you do not come empty handed. You know, or at least you used to know, that more than correct information is required for knowledge. Accordingly, you do not form the *new* belief when confronted with the Truetemp case. Your thought experiment belief is instead based on memory. Since the

[88] To remind the reader: this is the question of how new, justified beliefs can arise in a situation with no new empirical input.
[89] Cooper, 2005, pp. 330-331.

knowledge is not, contrary to what the intuition-theorist claims, new, the Epistemological Puzzle of Thought Experimentation does not arise.

This account of Lehrer's thought experiment strikes me as plausible. The view that thought experiments function as mnemonics is, however, rather limited. Thought experiments, on the mnemonical view, can only be successful if the thought experimenter has all the relevant information already stored in her memory. For a lot of thought experiments, however, that is unlikely to be true. What can be said about those thought experiments? A different (but in my opinion more accurate) reading of Kuhn can, I think, provide some answers.

4.2 Thought Experiments as Tools for Detecting Conflict

Contrary to what Cooper claims, Kuhn does not endorse a view according to which thought experiments have the function of helping readers retrieve forgotten knowledge. Quite on the contrary: Kuhn explicitly denies the view that "a thought experiment can teach us nothing that was not known before."[90] We do, on Kuhn's view, learn something new when we are doing thought experiments.

There are, Kuhn claims, close similarities between the function of thought experiments and the function of actual laboratory experiments. Concerning the role of thought experiments in science, Kuhn writes:

> Historically their role is very close to the double one played by actually laboratory experiments and observations. First, thought experiments can disclose nature's failure to conform to a previously held set of expectations. In addition, they can suggest particular ways in which both expectation and theory must be henceforth revised.[91]

The idea that thought experiments can disclose nature's failure to conform to previous expectations needs some unpacking. First, however, it is worth highlighting that Kuhn's view is merely a view of how *some* thought experiments function. Importantly, Kuhn does not claim all thought experiments to function as tools for detecting and revising mismatches between expectations and nature. His aim is rather to describe a category of thought experiments central to science.[92] As put by Kuhn: "No single thought experiment can, of

[90] Kuhn, 1977, p. 252.
[91] Kuhn, 1977, p. 261.
[92] Note that thought experimentation is not some strange activity that only philosophers indulge in. In fact, appeals to thought experiments occur within most (if not all) intellectual disciplines. Kuhn takes the role of thought experimentation in science to be particularly central. Indeed, Kuhn describes thought experiments as one of the essential analytic tools deployed in crisis science. By bringing about conceptual reform, a thought experiment can, Kuhn claims, trigger scientific revolutions.

course, stand for all of those which have been historically significant. The category "thought experiment" is in any case too broad and too vague for epitome."[93] I agree with Kuhn that we should not seek a unifying account of thought experiments.[94] I nevertheless think Kuhn's account of thought experiments as tools for detecting error could explain a wider category of thought experiments than suggested by Kuhn himself.[95] In particular, I believe Kuhn's account can be extended to some philosophical thought experiments.

The claim, then, is that *some* thought experiments function as tools for disclosing nature's failure to conform to a previous set of expectations. What does Kuhn mean by this? Take a simple example. Sam has never seen nor heard of black swans before. Accordingly, he believes swans to be white. As Sam sees a black swan for the first time, then, what Sam experiences is a mismatch between his expectations of what swans are like and what swans are really like. Nature fails to conform to his expectations that swans are white.

Kuhn claims thought experiments to function in a similar way. The idea, simply put, is that the person considering a thought experiment does not enter the situation neutrally. We enter the thought experiment situation with a set of beliefs about what the world is like. In cases where our beliefs are false or inaccurate, a thought experiment can help us discover the mismatch between our expectations of the world and what the world is really like.

There is, however, an important difference between Sam discovering that it's not true that all swans are white and acquiring new knowledge in a thought experiment situation. Sam learns that his conviction that all swans are white by means of seeing a black swan. His new knowledge is based on sensory experience. This is not, however, the case for new thought experiment beliefs. There is, as Kuhn stresses, no new sensory input. How, then, can thought experiments play the role of detecting and correcting mismatches between what we think the world is like and what it is really like? Kuhn's reply is the following:

> Laboratory experiments play these roles because they supply the scientist with new and unexpected information. Thought experiments, on the contrary, must rest entirely on information already at hand. If the two can have such similar roles, that must be because, on occasion, thought experiments give the scientist access to information which is simultaneously at hand and yet somehow inaccessible to him."[96]

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[93] Kuhn, 1977, p. 241.

[94] Cooper rejects Kuhn's account on the basis that it cannot be applied to *all* thought experiments. Simplicity, Cooper claims, "dictates that a common account of all thought experiments should be sought if at all possible." I don't think that a unifying account of thought experiments is possible or worth aspiring to. I thus disagree with Cooper. The fact that Kuhn's theory cannot account for all thought experiments is not a reason to reject it.

[96] Kuhn, 1977, p. 261.

At this point, it is worth highlighting the main difference between my reading and Cooper's reading of Kuhn. According to Cooper, the information which is 'simultaneously at hand and yet somehow inaccessible' is forgotten knowledge. I think this is inaccurate. Whereas forgotten knowledge may play a role in the acquiring of new knowledge in a thought experiment situation, the resulting knowledge is *not* merely forgotten knowledge. Doing thought experiments may, if done successfully, lead to knowledge that we did not have prior to considering the thought experiment.

To see how one may come to learn something new without the input of new information, consider the following scene. A few years ago, I played college soccer in Georgia. Most of my coaches and teammates were Europeans; a total of eight European countries were represented. One of my American teammates thought, however, for a surprisingly long time, that Europe was a country and accordingly that we all came from the same country. A very simple question made her realize the absurdity of that belief: 'why would we all speak English to each other then?' Knowing that people from the same country usually share a common language, my teammate quickly retreated her claim. She was also quick to admit other reasons why she should have known, such as seeing different European flags and being introduced to different types of European food. She had sufficient tacit and explicit knowledge to be in a position to know that her statement was false. All she needed was to reflect on it.

That Europe is not a country was not knowledge my teammate had simply forgotten. She had not, prior to this occasion, held that belief. She was nevertheless *in a position to know* it. Her coming to know that Europa is not a country did not, then, require new empirical data. It merely required an act of reflection.

Let's consider whether the Kuhnian story can be applied to the Truetemp case: Prior to considering the Truetemp case, you have a set of tacit and explicit ideas about what knowledge is. Some of those ideas may be in conflict with each other. For instance, from your day-to-day experience you may know (tacitly or explicitly) that more than correct information is required for knowledge. You may also, however, hold the view (tacitly or explicitly) that reliably true beliefs suffice for knowledge. Having these two ideas baked into your conception of knowledge you are, prior to considering the Truetemp case, liable to be confused. Once you encounter the Truetemp case, the feeling of paradox hits you. You realize that your conviction that reliably produces true beliefs suffices for knowledge is in conflict with your judgment that Mr. Truetemp does not know. One belief, then, must be jettisoned. Either Mr. Truetemp does know, or the Reliabilist concept of knowledge is false.

If this reading is correct, we have a second intuition-free answer to the Epistemological Puzzle of Thought Experimentation. Our judgment that Mr. Truetemp does not know is based on information already available to us prior to considering the thought experiment. Accordingly, there is nothing abnormal about the process by which that judgment is reached. Coming to the conclusion that Mr. Truetemp does not know is no more mysterious than my teammate coming to the conclusion that Europe is not a country.

4.3 Knowledge by Imagination

The theories outlined thus far all agree that thought experiment beliefs are different from laboratory experiment beliefs in that the latter is based on new empirical input, whereas the former is not. The theory outlined in this section denies that thought experiments differ from laboratory experiments in this respect. By performing a thought experiment, we do get access to new information. New information arises within the process of imagining, and it is on the basis of this new imagination-based information that our thought experiment beliefs arise.

The idea of knowing by imagination might, at least on first glance, seem dubious. For, as Williamson points out: "Imagining is often contrasted with knowledge. When you know nothing about something, you have to imagine it instead. Knowledge deals in facts, imagination in fictions."[97] This common conception of the imagination is, however, inadequate. Here are some mundane examples of how we know counterfactuals via imagination: I could have listened to Mozart while writing all the words of this thesis. I could have written the thesis in Brazil. The thesis could have been thirty pages longer. I could have written the essay only using my left pinky finger. I have never tried to do these things, but I nevertheless know that I am capable. The central point is this: one does not always have to make something actual to know that it is possible.

Influential versions of the view that imagining can lead to knowledge are defended by Williamson and Gendler. The two advocate slightly different views of how the imagination can be a source of knowledge, but their views can nevertheless be said to be broadly similar. They agree, for instance, that one central way in which the imagination gives rise to new knowledge is by manipulation of mental imagery. To see how contemplation and manipulation of a mental image can give rise to new knowledge, let's consider a question posed by Gendler: If you removed all the furniture of your next-door neighbor's living room,

[97] Williamson, 2015, p. 113.

could four elephants fit comfortably inside?[98] You answer this question, Gendler proposes, by first forming a proportionately sized mental picture of your neighbor's living room. Next, you form proportionally sized images of four elephants. You then block the space that the elephants would occupy. Having manipulated this mental picture, you are now able to *see*, so to say, whether the elephants fit in your neighbor's living room or not. On the basis of this mental image, you form a belief concerning the possibility of four elephants fitting into your neighbor's living room.[99]

A second way in which the imagination can give rise to new knowledge is by means of mental stimulation.[100] By using our imaginations, we appear to be able to put ourselves in other people's shoes. In doing so, we seem to be able to stimulate other people's mental processes. On the basis of this ability we are, to a large extend, able to think and decide on the basis of what we imagine other peoples' beliefs and desires to be.

It seems that this latter ability could be in play when we consider the Truetemp case. Here's the knowledge-by-imagination reading of the Truetemp case: In considering the Truetemp case, you put yourself in Mr. Truetemp's shoes. You imagine what it would be like to be in the situation outlined by the thought experiment, and from that perspective, you ask yourself whether you would know the temperature to be 104 degrees. Presumably, you do not believe that you would have knowledge it the case you have been invited to imagine yourself in. Accordingly, you judge the Truetemp case to be a case in which it would be wrong to attribute knowledge.

This provides an answer to the question of how thought experiment beliefs are formed. But on what basis can we be said to be justified in judging our thought experiment beliefs to be true?

On the knowledge-by-imagination view of thought experiments, we are licensed to take our judgments made within the process of imagining to be true on the basis of the process being a reliable belief-forming process. One reason why we should take the process to be reliable, both Williamson and Gendler points out, is the fact that our imaginations "can in principle exploit all our background knowledge in evaluating counterfactuals."[101] Gendler puts the point in the following way:

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[98] Gendler, 2010, p. 46.
[99] Williamson offers similar examples. See for instance, Williamson, 2007, p. 142.
[100] For more on mental stimulation and knowledge by imagination, see Kind and Kung (2016).
[101] Williamson, 2007, p. 143.

> Framed properly, however, a thought experiment can tap into it, and- much like an ordinary experiment- allow us to make use of information about the world which was, in some sense, there all along, if only we had known how to systematize it into patterns of which we are able to make sense.[102]

The idea is that our experience with the world, our sense of what the world is like and the abilities we have developed on the basis of that experience and knowledge, put us in a position to make reliable judgments within the process of considering imaginary scenarios. When confronted with a knowledge-related thought experiment, Williamson claims, we engage in an act of imagination, and we make a judgment "on the basis of an offline application of our ability to classify people around us as knowing various truths or as ignorant of them, and as having or as lacking other epistemologically relevant properties."[103] The fact that our judgments made within the process of imagination are informed and influenced by our background knowledge and abilities gives us good reason, Williamson and Gendler claims, to take the judgments to be true.

Furthermore, there are (as pointed out by Williamson) evolutionary reasons for us to have developed good imaginations. A good imagination "alerts us to future possibilities, so we can prepare for them in advance- guard against dangers, be prepared to take advantage of opportunities." [104] Evolutionary pressure has plausibly made our imagination selective in that it does not generate too many possibilities, and reality-oriented in that it only suggests scenarios that are actually likely to happen. In this sense, knowledge by imagination is closely linked to (or is even a type of) inductive knowledge.

If true that the imagination can give rise to new knowledge, we have a third intuition-free answer to the Epistemological Puzzle of Thought Experimentation. Thought experimentation can, by means of inviting us to use our imagination, provide new input: namely our imagined results. It is on the basis of this new input our thought experiment beliefs are based.

4.4 Taking Stock

One point I have been trying to make throughout this chapter is that we do not come empty handed when we step into a thought experiment situation. Our judgments about thought experiment are informed by what we already know. This takes away some of the mystery surrounding thought experiment beliefs. Thought experiments are not 'telescopes

[102] Gendler, 2010, p. 39.
[103] Williamson, 2007, p. 118.
[104] Williamson, 2018, p. 58.

into the abstract realm' or "oracles guiding us or misguiding us from the depth".[105] Thought experiments are (among other things) tools for explicating what we already know, frameworks for organizing our tacit commitments, and invitations to engage in imaginative exercises. We form our thought experiment beliefs on the basis of quite ordinary capacities: our capacity for retrieving knowledge, our capacity to detect contradictions and our capacity to imagine hypothetical scenarios.

The three intuition-free accounts outlined in this chapter are, of course, the beginning and not the end of an answer to the Epistemological Puzzle of Thought Experimentation. More must be said in order to properly vindicate these accounts of the epistemology of thought experiments. In addition, more should be said about the connection between the different intuition-free alternatives outlined in this chapter. Could all three processes outlined be at play in the same thought experiment? Do different people form their thought experiment beliefs on the basis of different processes? Do some thought experiments invite us to form beliefs on the basis of one process, and other thought experiments on the basis of another?

Can the theories outlined in this section account for the special phenomenology allegedly distinctive of thought experiment beliefs? Admittedly, I am not entirely sure what the special phenomenology is supposed to amount to. That being said, experiences of remembering, discovering contradictions, making inferences and imagining do, at least on occasions, come with something like a special feeling. Consider the experience of having something on the tip of your' tongue and then suddenly remembering what you had forgotten. Or consider the phenomenology of understanding; an experience of 'pieces coming together.' Discovering or rediscovering knowledge can, it seems, be said to be accompanied by special feelings.[106]

Finally, an objection is worth flagging. I have presented the three accounts above as intuition-free. Gendler's work, however - work in which much of this Chapter draws on - is not entirely free of intuition-terminology. The labeling of her theory as intuition-free, then, may appear as cheating. In fact, it is not at all obvious that we should call the three accounts intuition-free alternatives, instead of slightly unorthodox theories of how intuitions can play an evidential role in thought experiments. Consider, for instance, the view due to Darrell

[105] Brown, Williamson, 2018, p. 61.
[106] This might, of course, not be what the intuition-theorists have in mind when claiming thought experiment beliefs or intuitions to come with a special phenomenology. If so, that is okay. As pointed out in Section 2, people who lack the appearance of a murder (whatever that means) may nevertheless be murderers. Likewise, sources of evidence not capable of accounting for the special feeling distinctive for thought experiment beliefs (whatever that means) may nevertheless serve as evidence in a thought experiment.

Rowbottom, according to which "thought experiments (and the intuitions therein) rest, ultimately, on experience", where experience "includes learning how to use words, e.g. ostensive definition." [107] Or consider a definition of intuition due to Nevin Climenhaga. According to Climenhaga to have an intuition that P is to be in a mental state when considering a particular proposition and the following three conditions being true:

i) It seems to one that P;
ii) This seeming is not the conscious result of an inference;
iii) This seeming is not the conscious result of an apparent memory that P, a sensorial experience that P, or someone else's testimony that P."

Climenhaga maintains his view to be "compatible with one's intuition being the result of some kind of *tacit* or *subconscious* inference" and it is compatible with an apparent memory, sensorial experience or testimony being the actual source of one's intuition.[108] The central mark of the intuitive, then, is that the agent herself cannot identify an ordinary source of evidence as being the source of one's seeming that P. [109]The three accounts outlined in this chapter appears to be compatible with these views.

Hence, the question arises: why say that the three accounts are intuition-free replies to the Epistemological Puzzle of Thought Experimentation and not, as Gendler, Rowbottom and Climenhaga claim, intuition-centered accounts of how thought experimentation can give rise to new knowledge? One of the principal aims in Chapter 5 is to give a reply to this objection.

Chapter 5- Intuition?

In this chapter I consider an objection to Williamson where he is accused of buying into 'the myth of the intuitive'. The focus will be on a claim made by Deutsch according to which Williamson takes thought experiment beliefs to be non-inferentially justified, and a claim made by Cappelen according to which Williamson does not take experience to play a strict evidential role in acquiring knowledge in a thought experiment situation. In Section 2, I compare Williamson's account of thought experiment judgments to accounts of intuitions found in the literature. As we shall see, Williamson takes thought experiment judgments to

[107] Rowbottom, 2014, p. 120.
[108] On this view, the three theories outlined in Chapter 4 are all theories of intuition. If it does not seem to you that your judgment that Mr. Truetemp does not know is based on inference, memory, testimony, sensory experience or some other broadly inferential justifies, then your judgment that Mr. Truetemp does not know is intuitive.
[109] Climenhaga (2018).

have many of the same features as intuition-theorists often claim intuitions to have. I ask whether this gives us reason to label Williamson's theory of thought experiment judgments a theory of intuition. I will argue that it does not. In Section 3, I outline two recurrent themes in Williamson's work on philosophical methodology: The Demarcation Problem and Judgment Skepticism. In the fourth and final section, I address an objection raised by Deutsch targeting Williamson's view that we cannot legitimately be skeptics about thought experiment judgments. I will argue that Deutsch's objections rests on a erroneous reading of Williamson.

The next few pages will emphasize points of disagreement between Williamson's view and the views of Cappelen and Deutsch. It is worth pointing out at the outset, however, that the three philosophers are mostly in agreement on issues concerning philosophical methodology. In his work on philosophical methodology, Williamson offers an intuition-free articulation of how philosophy ought to be done. Philosophers' use of the term 'intuition' is obscure and problematic, he argues, and thus philosophers might be better of jettisoning the term and its cognates.[110] In this sense, Williamson's methodological outlook is closely aligned to that of Cappelen and Deutsch. Williamson is, however, more concerned than Cappelen and Deutsch with the question of whether intuitions *should* play a central evidential role in philosophy. Whereas the project of Cappelen and Deutsch is primarily descriptive, Williamson's project is primarily normative.[111]

Moreover, I also want to make clear that whereas the focus of this chapter will be on Cappelen's and Deutsch's objections to Williamson, that does not mean that objections do not run both ways. Despite the fact that Williamson is often characterized as an important ally of the no-intuition view, it is clear that Williamson himself does not ally himself entirely with the intuition-deniers. In his latest work on philosophical methodology, Williamson describes the view that philosophers do not rely on intuitions in philosophy as a "non-starter". The debate, he says, "rests on confusion about what intuitions are supposed to be."[112] Williamson does not, unfortunately, elaborate on this, and thus it is difficult to be sure precisely what he means. What is clear, however, is that Williamson does not assign intuition an evidential role in his own work. Williamson urges his readers not to mistake philosophers' use of thought experiments as appeals to intuition as evidence. Thought experiments are not tools for

[110] Williamson, 2007, p. 220.
[111] Williamson's approach, as compared to that of Cappelen and Deutsch, occurs at a much more abstract level. There are, for instance, no case studies in Williamson's work.
[112] Williamson, 2018, pp. 62-63.

eliciting intuitions, he argues, they are arguments in which the central premise is known by imagination.

5.1 Basic Philosophical Evidence and Armchair Knowledge

As we saw in Chapter 4, Williamson thinks that we are justified in taking our judgments about thought experiments to be true regardless of whether or not we are aware of independent reasons for saying that our judgments are true. In Deutsch's book, this idea is presented as the idea of 'Basic Philosophical Evidence.' Deutsch finds it to be one of the most objectionable aspects of Williamson's theory. Not only is it false, Deutsch claims, the idea of Basic Philosophical Evidence is a clear expression of a "lingering remnant of the myth of the intuitive in Williamson's thinking."[113]

First, a point about terminology. Williamson does not label judgments made about thought experiments "Basic Philosophical Evidence". This is Deutsch's terminology. That is important, for Williamson's point is *not* that there is anything distinctively philosophical about the evidence used in philosophy. This, I take it, is one of the main elements of Williamson's *The Philosophy of Philosophy*. The evidence appealed to by philosophers is not, in any distinctive way, different from evidence appealed to in other intellectual disciplines. Williamson would not, accordingly, approve of the phrase 'Basic Philosophical Evidence'.

To say that Williamson is opposed to the idea that there is something *philosophically* distinct about thought experiment judgments is not, however, to say that Williamson takes judgments about thought experiments to be unexceptional. The central point, however, is that the process underlying judgments about thought experiments are not merely at play in philosophical thought experiments, or in philosophy alone. The same process serves important roles in other intellectual disciplines.

This quibble aside, let's consider Deutsch's reasons for taking Williamson's view to be problematic. Those reasons are, primarily, outlined in two footnotes. In the first footnote, Deutsch describes Williamson as holding Basic Philosophical Evidence to be non-inferential. This is Deutsch:

> I do not mean to suggest that Williamson accepts that intuitions are non-inferential judgments. It is rather that there are specific examples of judgments made in philosophy that Williamson regards as non-inferential and standing in need of no inferential justification. His main example is "the Gettier intuition". Williamson takes this judgment to have "epistemic priority"

[113] Deutsch, 2015, p. 59.

> (182) over more general principles that might imply it, and argues (in chapter 7) that it may be regarded as evidence even if it does not receive any argumentation.[114]

In his second footnote, Deutsch makes it clear that the judgments that constitute Basic Philosophical Evidence are not supposed to be self-justifying. Instead, Deutsch takes Williamson's view to be "that we can take it for granted that these judgments are true, unless there is some legitimate challenge to them."[115]

Aside from the point about the terminology, I'm inclined to say that this outline of Williamson's view is roughly right. However, whereas there is little doubt that Williamson is committed to the view that thought experiment beliefs enjoy default justification (see Section 5.3), it is not so clear that Williamson is committed to the view that thought experiment judgments are non-inferential. Williamson sometimes makes the claim that thought experiment judgments are not *purely* inferential, but he does not explicitly call thought experiment judgments non-inferential.[116] Whether we should do so or not depends, at least on my reading of Williamson, on how liberal we are in characterizing a judgment as inferential.[117] In any case, there is little doubt that Williamson takes the judgments we make about thought experiment to be justified regardless of whether the judgment receives independent backing. We do, oftentimes, just "simply apply our concepts to what confronts us, without relying on an inference from further premises" and this ordinary ability to apply concepts in judgment is, Williamson argues, reliable. [118]

Deutsch's objection to the idea of Basic Philosophical Evidence is of the type we have encountered before. Philosophers do not *say* that they treat non-inferential judgments as evidence in philosophy, and hence we have no reason to suppose that they do. Moreover, philosophers present inferential reasons for supposing their judgments about thought experiments to be true. Since they do, Deutsch claims, the possibility of non-inferential thought experiment judgments serving an evidential role in philosophy is excluded.[119] If what I argued in Chapter 1 is correct, however, Deutsch's objection against Williamson does not stick. Appeals to judgments as evidence could be implicit. Moreover, even if philosophers do not appeal to what judgments their readers will form on the basis of considering their thought

[114] Deutsch, 2015, p. 172.
[115] Deutsch, 2015, p. 172.
[116] Williamson, 2007, p. 151.
[117] Williamson, 2007, p. 147.
[118] Williamson, 2007, p. 194.
[119] Deutsch, 2015, p. 59.

experiments, it might still be the case that readers are non-inferentially justified in taking their judgments about thought experiments to be true.

A second criticism, of a slightly different nature, can be found in Cappelen's book. This objection targets Williamson's attempt of making "generic claims about the kind of judgments we make about thought experiments." The assumption that all judgments about thought experiment have something in common, Cappelen objects, is an implausible one. Hence, we should resist the temptation. One claim Williamson should not make, Cappelen says, is the claim that thought experiment judgments are not, in a strict evidential way, based on experience. Williamson is mistaken, Cappelen claims, in holding judgments about thought experiments to belong to a special category of 'armchair knowledge.' If we were to indulge in the mistaken practice of making general claims about thought experiment judgments, Cappelen continues, it would be more correct to say that thought experiment judgments are justified in that they are based on experience.[120]

These are interesting aspects of Williamson's epistemology of thought experiments. In a longer text, more would be said about Williamson's reasons for taking judgments about thought experiments to not be based on experience and inference in a strict way. For the purposes of this chapter, however, it is enough to note that Williamson makes generic claims about how judgments about thought experiments are justified. To this we should add that the features claimed by Williamson to be characteristic of thought experiment judgments are features also claimed to be characteristic of intuitions by intuition-theorists.

Features such as being non-inferential and not based on experience is features typically attributed to intuitions by intuition-theorists. Moreover, as we shall see in Section 5.4, Williamson claims intuitions to enjoy default justification. This claim is often made by intuition-theorist as well. Intuition-friendly philosophers often claim that "the role and corresponding epistemic status of philosophical intuitions are similar to the role and corresponding epistemic status of perceptions."[121] Like perception, intuition is commonly thought to provide "non-inferential, defeasible justificatory foundation."[122] Thus understood, intuitions enjoy a privileged justificatory status. Intuitions are justifiers that do not stand in need of independent justification. Hence, the question introduced at the end of Chapter 4 arises: Is Williamson merely buying into elements of the myth of the intuitive? What stops us from saying that Williamson's account is an account of intuition?

[120] Cappelen, 2012, p. 110.
[121] Weinberg and Alexander, 2014, p. 188.
[122] Weinberg and Alexander, 2014, p. 188.

5.2 Intuition-centered or Intuition-free?

How do we determine whether a theory of the epistemology of thought experiments ought to be labeled intuition-centered or intuition-free? An obvious option suggests itself. Can't we just check whether the author of the theory invokes intuition-terminology or not? If that was the correct way of determining whether a theory was intuition-centered or not, Williamson's account would clearly not be intuition-centered. Intuition sounds, Williamson thinks, "like some strange inner oracle, guiding or misguiding us from the depths."[123] Invoking invoking-terminology, he claims, makes thought experiments sound more exceptional and mysterious than they are. Moreover, Williamson claims, the primary current function of intuition-terminology is not "to answer questions about the nature of the evidence on offer, but to fudge them, by appearing to provide answers without really doing so."[124]

We may, however, be inclined to label Williamson's theory an intuition-centered theory of the epistemology of thought experiments, despite Williamson's misgivings about intuition-terminology. That might sound bold, but the move in itself is neither unusual nor implausible. It would be analogous, for instance, to calling people who are for equal opportunities among genders 'feminists', despite their misgivings about the word 'feminism'. Assuming the legitimacy of this move, let's consider a second way of determining whether Williamson's theory ought to be labeled intuition-free or intuition-centered. On this second approach, we determine whether a theory is intuition-centered or not by comparing the theory in question to intuition-centered theories found in the literature. If the theory at hand makes the same claims as central theories on intuitions does, then we have reason to label the theory a theory on intuition. The main obstacle for this approach is a familiar one. As pointed out earlier in this text, intuition-theorists do not agree on what intuitions are. Not even large-scale categories are agreed upon. For some intuition-theorists, not being based on experience is a central mark of the intuitive.[125] For other intuition-theorists, experience plays a dominant role in our forming of, and justification for, intuitions.[126] Moreover, some intuition-theorists claim that intuitive justification is justification that does not derive from ordinary sources of evidence such as testimony, memory and perception. Here is Chalmers:

[123] Williamson, 2018, p. 61.
[124] Williamson, 2007, p. 220.
[125] See for instance Bealer (1998)
[126] See, for instance, Rowbottom, 2014, p. 120.

> For economy of expression, let us abuse language by saying that a justification is broadly inferential if it is inferential, perceptual, introspective, memorial, or testimonial (…). We can say that intuitive claims have a broadly noninferential justification: justification that does not derive from any of these sources.[127]

Contrast this with Climenhaga's view outlined at the end of Chapter 4. On Climenhaga's account, intuitive claims *can* have a broadly inferential justification. The central mark of the intuitive is that the agent herself does not know that her judgment has broadly inferential justification. Moreover, some intuition-theorists even claim straightforwardly perceptually based claimed to be intuitive. As Williamson points out, for instance, the judgment that there are mountains can be claimed to be intuitive.[128] Here's another example of a perceptual judgment being labeled as an intuition due to Jennifer Nagel:

> "When we read the emotions of others in their facial expressions- to take an example of an uncontroversial case of intuitive judgment- neurotypical adults are remarkably accurate at detecting and decoding the minute shifts in brow position and nostril contour that distinguish emotions such as surprise and fear."[129]

Nagel's example of an uncontroversial intuitive judgment would not qualify as an example of intuition for many intuition-theorists.

These are just some examples of disagreement over the question of what features intuitive judgments are supposed to have. There are many other examples; similar disagreements can be found over all features claimed to be characteristic for intuition. Even the seemingly least controversial features, such as seeming true and being fast or unreflective are controversial.[130]

This makes clear, I hope, why the second strategy for determining whether a theory is intuition-centered or intuition-free fails. It seems that no matter what features one claims thought experiment judgments to have, some theory of intuition will fit the bill.

Here is what I take to be a more promising strategy: We can determine whether a theory is intuition-centered by considering the functional role of intuition in the theory. On this account, neither Gendler's nor Williamson's theory ought to be labeled intuition-centered, because their theories do not *need* intuitions. Omitting the notion of 'intuition' from

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[127] Chalmers, 2014, p. 537.
[128] Williamson, 2007, p. 219.
[129] Nagel, 2012, p. 498.
[130] Here is an example: Intuition-theorists often claim intuitions to be unreflective. Rawls's idea of an intuition does not, however, fit into the picture of intuitions as unreflective. Rawls describes intuitions as our 'considered moral judgments'. They are, Rawls says, judgments that are made under favorable conditions: the agent is fully informed, he is thinking clearly and carefully, and his judgments are not subject to factors that could distort the judgments (Scanlon, 2003, pp. 140-141).

Gendler's theory makes no difference in argumentative force. This is evident, I think, by the fact that several of Gendler's articles on the epistemology of thought experimentation actually omit intuition-terminology.[131] Moreover, Gendler does not give a theory of the nature or epistemic value of intuition. In my view, that is okay. Gendler has everything she needs to make sense of the epistemology of thought experiments. Invoking the notion 'intuition' or cognate terms is not necessary. The same is true of Williamson's theory. The consequences of invoking intuition-terminology would, if Williamson is right, have solely negative consequences. First, it would make judgments about thought experiments sound more mysterious than they are. Second, it would make judgments about thought experiments sound more exceptional than they are. Third, it would mislead readers by making judgments about thought experiments sound like they are doing more than they are really doing. For these reasons, Williamson concludes, "philosophers might be better off not using the word 'intuition' and its cognates."[132] I'm inclined to agree with Williamson. We seem to have ample reason for jettisoning intuition-terminology from talk of thought experiments.

5.3 The Demarcation Problem and Judgment Skepticism

According to Williamson, intuition-theorists have not been successful in demarcating intuitive judgments from ordinary judgments. The result of this failure, Williamson claims, is that the category of intuition overgeneralizes. The category of intuition has become too broad and indiscriminate to be useful. As an example of the many attempts of demarcating intuitions from ordinary judgments overgeneralizing, let's return to Climenhaga's theory of intuition. As we saw above, Climenhaga claims intuitive judgments to be judgments that seem true and that are not based on a conscious process of inference. Here is Williamson's objection:

> Drawing the line between intuitive and non-intuitive judgments in that way has a significant result: *all non-intuitive thinking relies on intuitive thinking*. For if non-intuitive thinking is traced back and back through the conscious processes of inference on which it was based, sooner or later one always comes to some thinking not itself based on a conscious process of inference, which therefore counts as intuitive thinking. Consequently, philosophy's reliance on intuitive thinking shows nothing special about philosophy, because all thinking relies on intuitive thinking.[133]

[131] Gendler tends to use the word 'intuition' interchangeably with words such as 'judgment' and 'reaction.'
[132] Williamson, 2007, p. 220.
[133] Williamson, 2018, p. 62.

According to Williamson, similar problems arise for all current theories of intuition. There simply is no way, Williamson claims, of drawing a line between intuitions and mundane cases of concept application, and so any belief or inclination to believe may be regarded as an intuition."[134]

If that is true, we have a fourth reason for not labeling judgments about thought experiments intuitions. To do so would pointless. It would be to put judgments that are consciously based on inferential processes, judgments that are unconsciously based on inferential processes and judgments based on non-inferential processes in the same category. Moreover, Williamson claims, the failure of demarcating intuition from ordinary judgments causes a gigantic problem for those that are skeptical of judgments about thought experiments. Here is an example: Let's say that we endorsed the following two claims. First, Climenhaga's theory of intuition outlined above is the correct way to think about intuition. Second, we are not entitled to trust our judgment that Mr. Truetemp does not know to be true. If Climenhaga's theory of intuition generalizes, then our skepticism does too. With no plausible reply to the demarcation problem, skepticism about the judgment that Mr. Truetemp does not know generalizes to skepticism about all thinking, since all thinking relies on intuition. As a result, our skepticism has become much more general than what was initially intended. We are not merely questioning philosophers' use of thought experiments. We are questioning our ordinary capacities for making reliable judgments.

Since all judgments involve concept application, Judgment Skepticism is an overarching form of skepticism.[135] Positions of this sort (overly broad and radical forms of skepticism) are widely considered to be both implausible and unattractive in philosophical discourse. In fact, it is commonplace in ordinary philosophical inquiry to simply ignore them. This is Williamson's proposed way of dealing with those that are skeptical about thought experiment beliefs. We should, on Williamson's view, summarily ignore their complaints.[136]

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[134] This might strike us as strange. It seems that attempt at demarcating intuitions from other sorts of judgments should, at least eventually, be possible. To think that intuitions can be demarcated is, however, to assume that the notion 'intuition' could pick out some fixed category of judgments. Reasons to doubt this assumption has, however, been pointed out by Cappelen. Cappelen suggests that the introduction of the term 'intuition' as a technical term has been unsuccessful. The term 'intuition' might fail to denote anything at all, Cappelen suggests, and thus any attempt at demarcating intuitions from other sorts of judgments is doomed to fail at the outset.

[135] Williamson, 2007, p. 220.

[136] Williamson, 2007, chapter 7.

5.4 Default Justification

This last section will be an attempt to dissolve a disagreement between Williamson and Deutsch. According to Deutsch, Williamson makes the following two claims:

(1) Seeking inferential reasons for supposing judgments about thought experiments to be true leads to judgment skepticism.[137]
(2) Demanding inferential reasons for supposing judgments about thought experiment to be true leads to judgment skepticism.[138]

If (1) is true, then both Chapter 3 and 4 of this thesis are expressions of Judgment Skepticism. If (2) is true, then Nado' challenge outlined in Chapter 3 is illegitimate. Neither intuition-theorists nor intuition-deniers are allowed to demand reasons for taking judgments made on the basis of thought experiments to be true.

Both claims by Williamson are, according to Deutsch, bogus. There is nothing wrong with demanding an explanation for why we should take thought experiment beliefs to be true, and there is nothing wrong with providing reasons for thinking that our thought experiment judgments are true. Or so, Deutsch argues. Here's what I am going to argue. First, Deutsch is mistaken in attributing (1) to Williamson. Williamson would not object to an attempt of providing additional evidence for thought experiment claims. Second, Deutsch is, due to a curious blindside to Williamson's Demarcation Problem, unsuccessful in his attempt to reject (2).

There is not much to say about Deutsch's attribution of (1) to Williamson other than that it is a mistake. Deutsch gives no reasons for why we should think that Williamson holds the view that seeking additional evidence for thought experiment beliefs leads to judgments skepticism, and he makes no references to Williamson's work when attributing the view to him. We do not, however, need to look hard in order to find passages in Williamson's work that is in conflict with (1). Here is Williamson *encouraging us* to seek further evidence for our judgments about thought experiments:

> Still, if thought experimentation can yield knowledge of a fact, why should more support be needed? That's like asking: if naked-eye vision can yield knowledge of a fact, why should more support be needed? […] Although naked-eye vision without further checks can yield knowledge, a general policy of relying on naked-eye vision without further checks must be expected to yield errors too, since the faculties we use in naked-eye vision are fallible.

[137] Deutsch attributes this view to Williamson on page 59 of his book.
[138] Deutsch attributes this view to Williamson on page 58 of his book.

> Similarly, although though experimentation without further checks can yield knowledge, a general policy of relying on thought experimentation without further checks must be expected to yield errors too, since the faculties we use in thought experimentation are fallible.[139]

I don't know how to read this quote other than as evidence against the view that Williamson endorse (1). I also take this quote (and similar quotes in Williamson's work) to be evidence against another claim made by Deutsch, namely that Williamson would view a reply to the Relocation Problem discussed in Chapter 3 as an act of "recapitulating to an unreasonable demand."[140] Williamson is a pluralist about evidence, and we should not read him as opposed to projects seeking to provide additional support for claims made in philosophy.

Let's consider Deutsch's objection to (2). The view that demanding further evidence for thought experiment beliefs is, as we have seen, a view that Williamson holds. We cannot, on Williamson's view, endorse skepticism about thought experiment beliefs without first demarcating judgments about thought experiments from other judgments. Failure to deal with the Demarcation Problem is, at least on my reading of Williamson, the primary route to judgment skepticism. Despite its centrality, however, the role of the demarcation problem goes unmentioned in the outline and objection Deutsch have towards Williamson's (2). In outlining Williamson's reasons for thinking that skepticism about thought experiment beliefs leads to judgment skepticism, Deutsch gives prominence to a different idea found in Williamson's book. This is the idea of evidence neutrality.

On Deutsch's reading of Williamson, the idea of Evidence Neutrality is super central. In fact, Deutsch thinks 'the plain falsity of Evidence Neutrality makes Williamson's diagnosis of judgment skepticism implausible"[141] First, what is evidence neutrality? Williamson presents the idea in the following way:

> As far as possible, we want evidence to play the role of a neutral arbiter between rival theories. Although the complete elimination of accidental mistakes and confusions is virtually impossible, we might hope that whether a proposition constitutes evidence is in principle uncontentiously decidable, in the sense that a community of inquires can always in principle achieve common knowledge as to whether any given proposition constitutes evidence for the inquiry. Call that idea evidence neutrality. Thus in a debate over a hypothesis h, proponents and opponents of h should be able to agree whether some claim p constitutes evidence without first having to settle their differences over h itself.[142]

[139] Williamson, 2015, p. 26.
[140] Deutsch, 2015, p. 64.
[141] Deutsch, 2015, p. 69.
[142] Williamson, 2007, p. 210.

Williamson's view is that this dialectical standard of evidence is implicitly assumed by those that challenge judgments about thought experiment. That is problematic, Williamson maintain, since it is a view of evidence that pressures philosophers into psychologizing their evidence. For if one accepts evidence neutrality, one might be forced to accept that one's judgment about a thought experiment no longer constitutes evidence.

Here is an example: Say Maria takes the fact that Mr. Truetemp does not know to be evidence against Reliabilism. Anders, however, does not accept that the fact that Mr. Truetemp does not know is evidence against Reliabilism. In order to satisfy evidence neutrality, then, Maria cannot appeal to the fact that Mr. Truetemp does not know as evidence against Reliabilism. She must therefore look for less contentious evidence- evidence that Anders can agree with. One way for Maria to do this, is by psychologizing her evidence. Instead of appealing to the fact that Mr. Truetemp does not know, she can appeal to the fact that she believes that Mr. Truetemp does not know. That Maria believes that Mr. Truetemp does not know is uncontentiously decidable, and hence evidence neutrality is satisfied. However, although evidence neutrality is satisfied, Maria has put herself in a very difficult situation. She now has to argue from a psychological premise to an epistemological conclusion. That gap is not, as Williamson points out, easily bridged.[143]

But evidence neutrality is, Williamson argues, false. We do not have to be able to convince everyone that our evidence constitutes evidence in order for it to be evidence. In particular, we do not have to be able to convince everyone that our judgments about thought experiments constitute evidence in order for it to be evidence. We should, therefore, resist the pressure to discard our evidence.

Deutsch agrees with Williamson that evidence neutrality is false. However, it is a standard of evidence that is *obviously* false, Deutsch argues, and for this reason he doubts that anyone skeptical of thought experiment beliefs actually do commit themselves to this dialectical standard of evidence. To assume that a thought experiment skeptic would be that gullible, Deutsch says, is to make an implausible assumption. Moreover, Deutsch does not think the skeptic about thought experiment judgments need to endorse evidence neutrality. Since commitment to evidence neutrality is not obligatory for the skeptic about thought experiment judgments, the charge of judgment skepticism does not stick. [144] Those that challenge thought experiment judgments can, Deutsch claims, "perfectly well argue for their

[143] Williamson, 2007, p. 211.
[144] Deutsch, 2015, p. 66.

views without relying on any general claim about the nature of evidence."[145] Consequently, Deutsch argues, we can challenge the truth of a judgment about thought experiment judgments without risking Judgment Skepticism. As long as one does not commit oneself to evidence neutrality, the question of what justifies our judgments about though experiment jugdments is legitimate.[146]

As already anticipated, I do not think that Deutsch's attempt to argue for the legitimacy of the skepticism about thought experiment judgments is successful. Deutsch's focus on the role of Evidence Neutrality is, in my opinion, misplaced. I have no quarrel with the claim that commitment to Evidence Neutrality is one route to Judgment Skepticism, but what strikes me as the main route is, as already emphasized, failure to adequately deal with the Demarcation Problem. Hence, Deutsch's attempt to show that demanding additional evidence for judgments about thought experiments is legitimate fails. It is not enough to resist Evidence Neutrality. A rejection of Evidence Neutrality must be accompanied by a plausible reply to the Demarcation Problem if the charge of Judgment Skepticism is to be avoided.[147]

Where does that leave us? I take Williamson's view to be this: our capacity to apply concepts in judgment is by and large reliable, and thus we are justified in assuming our thought experiment judgments to be correct. To demand further evidence for thought experiment judgments, for instance by demanding that the intuition-denier illustrate that thought experiment judgments are based on intuition-free sources of evidence, is not legitimate. The fact that we are reliable in our capacity for concept application is not, however, to say that we are infallible in applying concepts in judgment. Accordingly, we should look for additional evidence in support for our thought experiment judgments. Seeking additional inferential reasons for supposing that our thought experiment judgments are true is, at least as I read Williamson, perfectly legitimate.

This strikes me as a more accurate reconstruction of Williamson's argument. Furthermore, I think it is a reasonable position (regardless of whether this indeed is Williamson's view). Demanding independent reasons for thinking that our judgments about thought experiments are true might not be legitimate. Seeking independent reasons for taking our judgments about thought experiment to be true is.

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[145] Deutsch, 2015, p. 70.
[146] Deutsch, 2015, pp. 66-67.
[147] To dispel the demarcation problem has been attempted by several experimental philosophers. See, for instance, Weinberg (2007), Machery (2011) and Nado (2015). To evaluate whether these attempts are successful or not is beyond the scope of this essay. I am, however, inclined to agree with Williamson (2015) that these attempts still do not demarcate the intended target in an adequate way.

6. Conclusion

In hope of providing an interesting summary, and as a way of mapping out an important implication of the view argued in this thesis, this conclusion will center around the movement known as *experimental philosophy*.

Experimental philosophers have, for the past twenty years, conducted survey-style experiments with the purpose of uncovering ordinary people's "intuitions" about thought experiments. Their motivation for doing so is, and has been, a suspicion that judgments previously assumed by philosophers to be intuitive or counterintuitive (and thus serving as evidence for or against theories) might not be so after all. Indeed, this is what much experimental data appears to indicate. Truth-irrelevant factors such as, for instance, affective language, socioeconomic status and cultural background appear to influence the responses different subjects have to different thought experiments.[148] This, experimental philosophers argue, speaks against the reliability of intuitions. If intuitions are subject to truth-irrelevant variability, then intuitions are not suited to serve as evidence in philosophy. Accordingly, philosophers' use of thought experiments is futile.

If what I have argued in this thesis is correct, however, the experimental critique does not stick. Philosophers' appeal to thought experiments is perfectly legitimate. To see why, let's return to the Truetemp case. Lehrer's thought experiment has, as we have seen, received a great deal of attention by philosophers working within philosophical methodology. One important reason for that is, undeniably, the fact that Lehrer's Truetemp case features in one of the most cited papers on experiential philosophy. This paper, written by Stacey Swain, Joshua Alexander and Jonathan Weinberg, considers the question of whether the so-called Truetemp-intuition is subject to 'order effects.' Here is how the three authors summarize their findings:

> We found that intuitions in response to this case vary according to whether, and which, other thought-experiments are considered first. Our results show that compared to subjects who receive the Truetemp case first, subjects first presented with a clear case of knowledge are less willing to attribute knowledge in the Truetemp case, and subjects first presented with a clear case of non-knowledge are more willing to attribute knowledge in the Truetemp case. We content that this instability undermines the supposed evidential status of these intuitions, such that philosophers who deal in intuitions can no longer rest comfortably in their armchair.[149]

[148] See chapter 2 of Machery (2017) for a systematic review of the empirical findings of experimental philosophy.
[149] Swain, Alexander and Weinberg, 2008, p. 138.

According to Cappelen and Deutsch, this critique of Lehrer's thought experiments fails because it targets a method that does not exist. Philosophers does not, Cappelen and Deutsch claim, treat intuitions as evidence. Consequently, they claim, the entire project of experimental philosophy is invalidated, and the experimental data collected over the past two decades philosophically insignificant. Whether or not people have intuitions about thought experiments, and what the content of those intuitions are, are irrelevant. If what I argued in Chapter 1 is correct, this conclusion is too strong. What we should conclude on the basis of the textual evidence produces by Cappelen and Deutsch is that *we do not know* whether the method attacked by experimental philosophy exists or not. This more cautious conclusion is still rather damaging for the experimental critique. Since experimental philosophers pride themselves on being empirical, the fact that their entire movement rests on an unchecked empirical assumption is problematic.

Moreover, notice how Swan *et al*. assume Lehrer's rejection of Reliabilism to depend *entirely* on what intuitions are elicited in response to the case. All that is required in order to judge Lehrer's rejection of Reliabilism unsuccessful is, the experimental philosophers assume, evidence to the effect that the intuition he allegedly relies on as evidence is unreliable. The assumption that the only evidence relied on as evidence in the Truetemp case is intuition is, as we have seen, also made by non-experimental philosophers. The Argument from Lack of Other Obvious Options assumes, as we have seen, that judgments made on the basis of thought experiments are justified and that "there is *nothing else*" than intuition that could justify philosophers in making such judgments."[150] Both intuition-friendly and intuition-hostile philosophers, then, exclude the possibility of pluralism when theorizing about thought experiments.

This thesis has been an attempt to argue the opposite. Claims made about thought experiments are copiously supported. As argued in Chapter 3, philosophers argue for what's true in a thought experiment. Moreover, if what I have argued in Chapter 4 is correct, our judgments about thought experiments provides additional support for claims about thought experiments. Hence, justification for claims about thought experiments is pluralistic. That is a significant problem for Swan *et* al. For to show that the so-called 'Truetemp intuition' is unreliable is merely to undercut one source of support for Lehrer's conclusion. In order to say

[150] Boghossian, 2014, p. 381. My emphasis.

that Lehrer's argument is unsuccessful, one would have to address and evaluate all the evidence Lehrer presents against his target theory.[151]

It is worth emphasizing how important this result is. The combination of claims made by the experimental philosopher is, if true, catastrophic for philosophy. It is not hard to see why. The method of appealing to intuitions about thought experiments are, by most contemporary analytic philosophers, assumed to be one of the most widely used methods of analytic philosophy. If true that intuition is the only evidential source capable of doing evidential work in thought experiments, and if true that intuitions are subject to truth-irrelevant variability, then the evidential weight of thought experiments is entirely undermined. If experimental philosophers were right, then contemporary analytic philosophers would, to put it in Cappelen's phrasing, be "no better off than crystal ball gazers."[152] Our reliance on intuitions as evidence would, to repeat Williamson's point, a methodological scandal. The only evidence for judgments about thought experiments is *not*, however, intuition. Intuitions function, at best, as non-essential additional evidence for claims we make about thought experiments. This makes experimental data on intuitions irrelevant.

The experimental critique is, however, problematic regardless of whether or not evidence for thought experiment claims is pluralistic. Note how broad the conclusion drawn by Swain *et al* is. We are told that the fact that the 'Truetemp intuition' is subject to order effects undermines intuition on the whole and we are encouraged to refrain from relying on intuition as evidence altogether. This is a good example, I think, of experimental philosophers running into Judgment Skepticism. Since intuitions are not distinguished from ordinary judgments in any principled way, the conclusion drawn by Swain *et al.* generalizes. As a result, the kind of skepticism about thought experiments advocated by experimental philosophers is illegitimate.[153] Unless we are told what judgments we ought and ought not

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[151] Some experimental philosophers have tried to dismiss the significance of arguments by claiming arguments to rest on intuitions. The idea is that intuitions are relocated to the premises of arguments for judgments about thought experiments (see Chapter 3). If intuitions are relocated to the premises of arguments, the experimental philosophy movement would still be relevant. As put by Nado: "If at least some fairly significant chunk of the evidential starting points that feature in philosophical inquiry is rooted in intuition, then a critique of intuition's epistemological merits has the potential to be quite devastating" (Nado, 2017, p 379). Experimental philosophers could merely restate their aim. They could, for instance, conduct surveys asking for people's intuitive judgments about premises in arguments for judgments about thought experiments. In this way, experimental philosophy could still form a significant threat. If what I argued in Chapter 3 is correct, however, the evidence for premises of arguments for claims we make about thought experiments would, if intuition indeed plays an evidential role, be pluralistic. Accordingly, experimental research on people's intuitions about premises would not be as essential as claimed by Nado.

[152] Cappelen, 2012, p. 17.

[153] Williamson puts this critique of the experimental philosophy movement in the following way: "Since the negative program has been forced to extend the category of intuition to ordinary judgments about real-life cases, the critique is in immediate danger of generating into global skepticism, because all human judgment turn out to

trust, we are allowed to ignore encouragements to the effect that we should stop relying on intuitions.[154]

To say that skepticism about judgments about thought experiment is illegitimate is not, however, to say that judgments about thought experiments are infallible. Thought experimentation does not always yield knowledge. In some cases, one simply lacks the relevant background knowledge. In other cases, one's reflection or imagination does not lead to a clear answer. The fact that some source of evidence is fallible is not, however, a reason to reject that the source can, and often does, give rise to knowledge. To return to the pollen-analogy from Chapter 4: Sometimes people who are allergic to pollen falsely judge themselves to have an allergic reaction when having caught something else (for instance a virus). A pollen allergic could also, if lucky, fail to have symptoms, despite there being pollen in the air. That does not change the fact that those allergic to pollen are mostly reliable in their judgments about whether or not there is pollen in their air. They are justified in making judgments about pollen despite not being infallible.

We should not be worried about the fact that thought experimentation is fallible. As put by Williamson:

> This isn't a reason for not using thought experiments, for all human faculties are fallible. Rather it's a reason for spreading our bets, not relying exclusively on thought experiments. If we use other methods too, they may help us catch our occasional mistakes in judging thought experiments, even if those mistakes are species-wide. Developing systematic general theories, supported by the evidence, is a good way of doing that.[155]

I agree with Williamson. We should not expect judgments about thought experiment alone to do the justificatory work in philosophical texts. Fortunately, philosophers very rarely (if at all) do. Philosophers - at least good philosophers - do not restrict themselves to merely pointing out *one* way in which their theories and claims are supported. Lehrer's book illustrates this point very clearly. Through the course of his book, Lehrer develops a systematic (some would even say overly systematic) theory. In doing so, he appeals to a number of different arguments, examples, thought experiments and methods. It is primarily on the basis of this

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depend on intuitions" (Williamson, 2015, p. 1). During the course of his work, Williamson presents several objections to the movement. For other objections, see Williamson (2011).

[154] The conclusion drawn is problematic for reasons that has nothing to do with judgment skepticism as well. See, for instance, Sosa (2016) for further criticism. According to Sosa, "the upshot is that we have to be careful in how we use intuition, not that intuition is useless."

[155] Williamson, 2018, p. 65.

systematic theory that we are justified in judging Reliabilism to be false. Although our judgment that Mr. Truetemp does not know provides *additional justification* for rejecting Reliabilism, the fact that we judge the Truetemp case to be a case in which knowledge-attribution would be a mistake is not, in any way, essential for Lehrer's overall project. On this understanding, our judgment concerning the Truetemp case have a much more limited role than what is typically assumed. We could, as Lehrer himself points out, remove the thought experiment (and accordingly our additional evidence that derive from considering it) and yet be justified in rejecting the Reliabilist theory of knowledge.

If I am right that evidence for judgments about thought experiments is pluralistic, that does not merely have implications for experiential philosophers. If intuition-free sources of evidence play an evidential role in thought experiments, intuition-theorist would no longer be entitled to say, without evidence, that intuition serve an evidential role in thought experiments. Whether or intuitions do play an evidential role would be an open empirical question. Moreover, answering the question would be a far less urgent task than commonly assumed. We can be confident that thought experiments do the job we assign them without first getting clear on whether intuitions are, can, or should serve an evidential role in philosophy.

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