X-Phi within its proper bounds

Jonathan Dixon

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Jonathan Dixon [ID]

Department of Philosophy, Wake Forest University, Winston-Salem, NC, USA

ABSTRACT

Using two decades worth of experimental philosophy (aka x-phi), Edouard Machery argues in *Philosophy within its Proper Bounds* (2017) that philosophers' use of the "method of cases" is unreliable because it has a strong tendency to elicit different intuitive responses from non-philosophers. And because, as Machery argues, appealing to such cases is usually the only way for philosophers to acquire the kind of knowledge they seek, an extensive philosophical skepticism follows. I argue that Machery's "Unreliability" argument fails because, once its premises are percisified, they are either self-defeating or without justification. This is a significant result because Machery's arguments are the most widely cited and discussed x-phi arguments for philosophical skepticism and many hold that Machery provides the most empirically informed, convincing, and thus best case for this kind of skepticism. So, if my arguments are sound, then the best x-phi argument for philosophical skepticism fails. I further argue that this result provides strong reason to believe the more general conclusion that "negative" x-phi is likely doomed: x-phi likely can never support a substantive philosophical skepticism. Ultimately, I argue for the broad conclusion that all empirically minded arguments for philosophical skepticism are likely to fail for the same reasons that Machery's does, i.e. they are (likely) self-defeating.

One of Edouard Machery's primary aims in *Philosophy within its Proper Bounds* (2017) is to establish a robust kind of philosophical skepticism. To accomplish this, Machery's main target is the so-called "method of cases," i.e., the practice of appealing to thought-experiments (aka hypothetical cases) to "test" certain philosophical claims against our intuitive judgments of these cases. Machery argues that two decades of experimental philosophy (x-phi) shows that *philosophers' use* of the method of cases is unreliable: nearly all of the most cited philosophical cases of the past 80 years have a tendency to elicit different intuitive responses from non-philosophers.

CONTACT Jonathan Dixon ✉ Jdixon6611@gmail.com ✉ Department of Philosophy, Wake Forest University, Tribble Hall B301, P.O. Box 7332, Winston-Salem, NC 27109, USA

And, Machery argues, because appealing to such cases is usually the only way for philosophers to acquire the knowledge they seek (i.e., *modal* knowledge about the *nature* of knowledge, reference, right action, responsibility, etc.), an extensive philosophical skepticism follows.

The first aim of this paper is to argue that once the premises of Machery's unreliability argument are percisified, they are either self-defeating or without justification. Specifically, these premises are either the kind of modal claims Machery denies philosophers have access to or these premises must be supported by the very kind of cases this argument deems illegitimate. Either way, Machery's unreliability argument does not support philosophical skepticism. By itself, this is a significant result because Machery provides the most widely cited and discussed x-phi arguments for philosophical skepticism. Specifically, Li and Zhu's (2023, p. 39) results show that, not only is *Philosophy within its Proper Bounds* the most influential book published in x-phi, but it is also the third most influential published work (i.e., article or book) in x-phi. And many hold that Machery presents the most empirically informed, convincing, and thus best case for this kind of skepticism (see Akagi, 2019, p. 2; Deutsch, 2020; p. 758; Drożdżowicz et al., 2018, p. 470).[1] So, if my arguments are sound, then the best x-phi argument for philosophical skepticism fails.

The second aim of this paper is to show that this result against Machery further supports a more general conclusion against the cogency of "negative" x-phi:

> **Negative X-Phi** = the view that x-phi's empirical studies show that our intuitive reactions to (philosophical) thought experiments are not adequate evidence that can justify our (philosophical) beliefs. (cf. Nado, 2016, p. 2)

Specifically, I argue that this result against Machery provides strong reason to believe that negative x-phi is likely doomed: x-phi likely can *never* support a substantive philosophical skepticism. In short, such empirical results are unlikely to ever be a considerable threat to philosophical knowledge. Finally, the last aim of the paper is to argue for the even more general conclusion that all empirically minded arguments for philosophical skepticism are likely to fail for the same reasons that Machery's does: they are (likely) self-defeating.

I should note that while others have argued that some of Machery's arguments are self-defeating (e.g., Setiya (2018); Strohminger (2018); Lewis (2018); Cappelen (2022); Nado (2022); and Alexander and Weinberg (2020); most only mention it in passing or do not develop it in much detail (see Machery (2020, 2022) for replies). And even those who do develop it (i.e., Hughes (2019), and Strohminger and Yli-Vakkuri (2023)), direct this issue to a different and, by my reading, non-central part of Machery's challenge to philosophical methodology and knowledge

involving peer disagreement (see Machery (2019, 2023) for replies).[2] While a full explication is outside the scope of this paper, my self-defeat argument is distinct from these because it targets, by my reading, Machery's central argument (i.e., "Unreliability"), and it furthers the self-defeat challenge in a systematic way.[3] Additionally, as the second and third aims of this paper indicate, if sound my arguments do not just thwart Machery's argument but make the further case that this problem is likely *permanently unavoidable* for negative x-phi and, more generally, for all similar empirical challenges to philosophical knowledge.

Section 1 explains Machery's central argument in more detail. Section 2 argues that Machery's unreliability argument fails. And Section 3 concludes by providing two arguments for the more general conclusions that, not only negative x-phi but, all empirically minded arguments for philosophical skepticism are likely to fail for the same reasons that Machery's does.

1. Machery's unreliability argument

Machery claims that philosophers typically aim to acquire some *modal* knowledge about the *nature* of knowledge, reference, right action, responsibility, etc. is reflected in the fact that philosophers typically state their theories in metaphysically necessary or metaphysically sufficient conditions. To evaluate and adjudicate between such modal theories, philosophers typically use the "method of cases": they pose thought experiments to "test" these theories against our intuitive judgments of these cases.

For example, hedonic theories of well-being roughly state that pleasure is both necessary and sufficient for a good life, while desire-satisfaction theories of well-being roughly hold that satisfying one's desires is both necessary and sufficient for a good life. Many philosophers believe that hedonic theories of well-being are refuted by some version of the "experience machine" (Nozick, 1989). These are cases where someone is given a choice to remain in the real world with its typical trials and tribulations, or a choice to "plug-in" to a virtual world that will be filled with what one expects will be immense pleasure. In this version, the choice is permanent and once it is made one will have no memory of making this choice. Because many philosophers intuitively judge that a life lived in the experience machine is not as good as a life (with similar subjective experiences) lived outside the experience machine, they believe that such simple versions of hedonism are false. But it seems that desire-satisfaction theory is not challenged by the experience machine since we typically desire to live in the real-world and really accomplish our life's goals. Neither of these desires can be satisfied in the experience machine.

Importantly, Machery contends that philosophers often must appeal to similarly outlandish cases that have what he calls "disturbing

characteristics": they are unusual hypothetical cases that pull apart what typically goes together in everyday life (2017, pp. 118–120).[4] For example, the experience machine is unusual because this situation is, as far as we know, not actual and which we have never, or infrequently, encountered in our everyday lives and thinking[5]; and it separates the properties of pleasure, well-being, and a good life – which typically co-occur in everyday life, e.g., gaining pleasure from achieving one's goals typically contributes to one's well-being and a good life.

For Machery, it is an essential part of philosophical cases that they pull apart properties that typically co-occur, since this is often the only way philosophers can adjudicate between competing theories (e.g., hedonic and desire-satisfaction theories of well-being) and (allegedly) attain the modal knowledge they seek (e.g., what is metaphysically necessary and/or sufficient for a good life). And typically, only unusual cases like the experience machine can accomplish this. This philosophical practice is supposed to mirror scientific practice: because "natural occurring phenomena rarely discriminate between existing scientific theories, and scientists are compelled to devise artificial experimental conditions about which existing scientific theories make different predictions" (Machery, 2017, p. 118).

In providing a systematic review of the x-phi literature, Machery argues that *philosophers' use* of the method of cases is unreliable: Nearly all of the most cited philosophical cases of the past 80 years (that are used to support or undermine philosophical theses) have a strong tendency to elicit different intuitive responses from non-philosophers and are largely influenced by demographic effects (e.g., one's culture, age, gender) or presentation effects (e.g., the order or framing of the case).

For instance, a study from Olivola et al. (ms) shows that South Koreans are over 200% more likely to plug into the experience machine, men are about twice as likely to plug into the experience machine as women, and the older you are the more likely you are to plug in. A study from de Brigard (2010) shows that how non-philosophers react to the experience machine largely depends on how the case is described. While people in general are unwilling to *plug into* the experience machine, they are also unwilling to *unplug* if they are told to imagine they are already in the experience machine. These results indicate that our responses to this kind of case reflect a kind of status quo bias – to remain in one's initial state – rather than revealing something necessary or sufficient about the good life.[6] Thus, it neither seems that the experience machine refutes simple kinds of hedonism, nor supports desire-satisfaction theories, contra many philosophers. According to Machery, what best explains the variance in intuitive judgments in this, and other, philosophical cases is that such cases are defective in the same way: they have the disturbing characteristics mentioned above.

For Machery, this explains why nearly all philosophical cases are unreliable guides to modal knowledge.

Machery further uses this (negative) x-phi literature to extend his argument to a general inductive pessimism which indicts all current and potential philosophical cases that have disturbing characteristics. Machery helpfully formalizes his argument as:

Unreliability

(1) Unreliable judgments are severely deficient from an epistemic point of view.
(2) Judgments elicited by most of the philosophical cases that have been examined by experimental philosophers are unreliable.
(3) If the judgments elicited by most of the philosophical cases that have been examined by experimental philosophers are unreliable, then the judgments elicited by most philosophical cases are plausibly unreliable.
(4) We ought to refrain from making a judgment of a particular kind K (i.e., we ought to suspend judgment of kind K) when most judgments of this kind are plausibly severely deficient from an epistemic point a view, except when this judgment is known to be an exception.
(5) Hence, except when a philosophical case is known to elicit a reliable judgment, philosophers ought to suspend judgment about the situations described by philosophical cases. (Machery, 2017, pp. 102–103)

Premise 1 states a reliability condition (more on this in the next section). Premise 2, aka the "inductive base" of Machery's argument, essentially claims that the empirical findings of the negative x-phi literature are cogent. Premise 3, aka the "inductive step," extends the inductive base to indict all potential cases philosophers might use to test philosophical claims against their intuitive judgments. Premise 4 articulates a normative claim that, for Machery's purposes, amounts to the claim that because the *type* of cases philosophers typically appeal to (i.e., ones with disturbing characteristics) are unreliable, we ought to suspend judgment about them. Premise 5 concludes with a near global skepticism about philosophers' use of the method of cases. I say "near" because Machery holds that unless a philosophical case has been shown by empirical means to elicit the same intuitive judgment among philosophers and non-philosophers, regardless of demographic and presentation effects, that we cannot trust any such philosophical case to support or undermine a philosophical theory. In short, philosophical cases are guilty until proven innocent.

To be clear, Machery is not a general skeptic about all our judgments regarding knowledge, right action, etc., nor is he a skeptic about our

judgments regarding everyday kinds of cases. He claims that we often do make reliable judgments about such things (Machery, 2017, pp. 91, 113).[7] Machery is just a skeptic regarding the type of cases (i.e., ones with disturbing characteristics) philosophers typically must use to analyze the modal nature of their philosophical theses.

To reach a broad philosophical skepticism, Machery uses the conclusion of Unreliability[8] as a key premise in another argument he calls "Modal Ignorance": in brief, because appeals to cases with disturbing characteristics are both common and usually necessary for philosophers to investigate and (allegedly) attain the modal knowledge they seek, and we should suspend judgment about such (unreliable) cases, a pervasive kind of philosophical skepticism follows (Machery, 2017, pp. 186–7). To clarify, Machery is not a complete modal skeptic (Ibid), but just a skeptic regarding certain ways of justifying the modal claims philosophers wish to know. Specifically, while Machery acknowledges that philosophers have attempted to acquire such modal knowledge via other methods than the method of cases, he argues that these other methods also cannot allow us to acquire such modal knowledge. For instance, in addition to the method of cases, Machery also denies that we can come to know or justifiably believe such modal claims by means of intuition, through analyzing the meaning of words, or by modeling philosophical views on the theoretical virtues (Machery, 2017, pp. 194–205). Thus, the conclusion of Modal Ignorance cannot be denied on the grounds that this kind of modal knowledge can be acquired some other way. In short, while Machery is also against these other armchair methods to acquire justification for, or knowledge of, metaphysical necessities, his focus is on the method of cases.

That said, because my focus in this paper is on Unreliability, I will set Modal Ignorance aside in the rest of the paper and grant that its premises and conclusion are true. Specifically, I will assume that we should suspend judgment about the method of cases' ability to attain modal knowledge (per the conclusion of Unreliability) *and* assume that the method of cases is the *only* way for philosophers to acquire the modal knowledge they seek (per a premise in Modal Ignorance). These assumptions will be useful below in making the case that Machery's Unreliability argument is self-defeating *or* without justification because together they allow me to accept that modal knowledge of the modal claims philosophers seek are "beyond our epistemic reach" (Machery, 2017, p. 1) – which is the ultimate aim or epistemic significance that Machery intends for Unreliability. In the sections that follow, "modal knowledge" and "modal claims" are used as shorthand for the kinds of things Machery denies we philosophers can ever have access to (e.g., via the method of cases).

2. Against unreliability

While there are many ways to challenge Unreliability (and Modal Ignorance),[9] I argue that premises 1 and 4 of Unreliability are either defeated by the conclusion of Unreliability or these premises are without justification. Specifically, premises 1 and 4 are either the kind of modal claims that Machery denies philosophers have access to or these premises must be supported by the very kind of cases this argument deems illegitimate. Either way, these premises of Machery's own argument are, by Machery's own lights, without justification, and thus Unreliability does not support philosophical skepticism.[10] To be clear, the issue here is not whether these premises are true; indeed, with proper refinements, I believe something like them is true. The issue is whether, by Machery's own reasoning, they can legitimately be accepted and used in Unreliability.

Let me begin by noting one common and problematic feature of both premise 1 and 4: they contain the vague and imprecise phrase that unreliable judgments are "severely deficient from an epistemic point of view." This does not precisely indicate what is wrong with unreliable judgments (in premise 1) or why we should suspend judgment about unreliable judgments (in premise 4). Typically, philosophers would state such premises in terms of "justification" or "knowledge" to make such claims more precise and informative. For example, reliabilists like Goldman (1979) would argue that unreliable judgments are insufficient for justification and knowledge. But Machery contends that this should be avoided to circumvent the discussions and controversies surrounding such epistemic notions, especially discussions about "what is sufficient or necessary for justification and knowledge" (Machery, 2017, p. 97). Specifically, Machery mentions the often-discussed counterexamples to reliabilism (i.e., Truetemp and Norman the clairvoyant), the internalism/externalism about justification debate, and the generality problem.

But the crucial question is: what warrants avoiding such discussions and allowing premises 1 and 4 to be expressed in an imprecise (and potentially uninformative) way? Machery seems to justify this formulation of these premises by providing three sources of support for them, which I will call:

Consensus: Most epistemologists agree that something like 1 and 4 are true.
Everyday Cases: Non-philosophical or everyday cases support 1 and 4.
Obvious: Upon reflection, 1 and 4 are obviously true.

I will argue that each of these sources of support is inadequate and do not prevent premises 1 and 4 of Machery's argument from being self-defeating or, by Machery's lights, without justification.

Against consensus

Machery says that many proponents of the method of cases assume something like premise 1 and 4 (Machery, 2017, p. 103), and so he is just following their lead. But this won't do, since presumably proponents of the method of cases accept these premises on the basis of considering intuitive judgments elicited from philosophical cases. To see why, it is important to first note that such proponents are likely to spell out premises 1 and 4 in terms of reliability being *necessary* for justification or knowledge. For instance, Turri (2015) provides a list of epistemologists who hold that the reliability of cognitive processes is necessary for knowledge:

> Alvin Goldman ... argues that knowledge *requires* justified belief, and that a belief's justification "is a function of the reliability of the process or processes that cause it" (1979, p. 345), ... Ernest Sosa argues that knowledge *must* be produced by a competence, which is a disposition "that would in appropriately normal conditions ensure (or make highly likely) the success of any relevant performance issued by it" (Sosa, 2007, p. 29). ... Duncan Pritchard argues that knowledge *must* be "the product of the agent's reliable cognitive ability" (2009: 415). Wayne Riggs argues that "one's theory of knowledge *must* contain a reliabilist component" (2002: 81) ... Laurence BonJour reminds us that "what is *needed* for knowledge, according to the traditional conception, is a reason or justification of the distinctive sort that is truth-conducive," where a truth-conducive reason "increases or enhances" the "likelihood that the belief is true" (2002: 39) ... Timothy Williamson tells us that he finds "no reason" to "doubt the intuitive claim that reliability is *necessary* for knowledge" (2000: 100). (Turri, 2015: fn. 1, emphasis added)[11]

In other words, these and other epistemologists hold, in-line with premise 1, that the reason unreliable judgments are severely deficient (from and epistemic point of view) is because reliability is necessary for knowledge and/or justification; and, in-line with premise 4, this is why we should refrain from making unreliable judgments.

But these facts about epistemologists implicitly block Machery from supporting premise 1 and 4 with *Consensus* for two reasons. Firstly, they appeal to exactly the kind of modal claim that he holds philosophers cannot attain knowledge of by using the method of cases (recall the end of section 1). Second, philosophers usually support this kind of modal claim by appealing to cases Machery's argument forbids. For instance, reliabilists like Goldman (1979) hold that reliability is necessary and sufficient for justification and (along with truth and belief) knowledge, and supports the centrality of reliability for these epistemic notions by appealing to the following cases: paradigm unreliable processes like confused reasoning, wishful thinking, and guesswork also do not provide adequate justification or knowledge; while paradigm reliable processes like sense perception, remembering, and good reasoning do provide adequate justification or knowledge (Goldman, 1979, p. 95). It is not clear that these cases are non-

philosophical (i.e., cases without disturbing characteristics) in the way that Machery allows.

To make matters worse, Machery relies on the following definition of reliability he approvingly takes from Goldman (1979) and Alston (1995):

> T, a psychological process outputting judgments, is reliable in environment E *if and only if* in E either T has the disposition to produce a large proportion of true judgments or, if T is an inferential process, T has the disposition to produce a large proportion of true judgements if its inputs are true. (Machery, 2017, p. 96, emphasis added)

But this understanding of reliability in necessary and sufficient conditions is also the kind of modal knowledge that Machery forbids or is likely supported by the kind of cases Machery's argument disavows. Either way relying on this definition seems to show another way that Machery's argument is self-defeating or, by Machery's own lights, without justification. Indeed, Machery gives the following example to illustrate and support this definition: "A fake-bill detector may be reliable (it may detect a very large proportion of fake bills) when the fake bills are of low quality, but unreliable when a super-duper counterfeiter made them" (Ibid). But it is not clear that Machery can appeal to cases like fake-bill detector since they seem to have the disturbing characteristics Machery identifies as problematic. At the very least, Machery must explain why cases like fake-bill detector are not the forbidden kind of unusual hypothetical case that pulls things apart that typically go together.

Furthermore, consider premise 1, which states: "Unreliable judgments are severely deficient from an epistemic point of view" (Machery, 2017, p. 102). As stated, this premise is a generic statement of the form "Fs are Gs." Generic statements are notoriously difficult to interpret semantically since they allow for different interpretations about their degree of quantification. For example, "dogs are mammals" is correctly interpreted as "*all* dogs are mammals" but, since approximately only 1% of ticks carry Lyme disease, "ticks are carriers of Lyme disease" must be interpreted as "*only a very few* ticks are carriers of Lyme disease".[12] Importantly, for Machery to reach his radical skeptical conclusion (i.e., a general skepticism about philosophers' use of the method of cases), premise 1 must be interpreted as having universal quantification (i.e., '*All* unreliable judgments … "). For, if the kind of quantification is anything less than this, then Machery's argument would allow for some (however few) unreliable judgments to not be severely defective. This, in turn, would allow for some unreliable judgments about philosophical cases to avoid Machery's skeptical conclusion. Furthermore, Machery cannot lend himself to this interpretation of premise 1 because, with such universal quantification, this premise is essentially saying that "unreliable judgments are *sufficiently* severely deficient from an epistemic

point of view." But this is exactly the kind of modal knowledge that Machery prohibits. Indeed, this interpretation is equivalent to "reliable judgments are *necessarily* non-severely deficient from an epistemic point of view."

And, it is not clear precisely what this equivalent version of premise 1 means. If this premise were stated as "reliable judgments are necessary for knowledge or justification," then it would clearly articulate what Machery's argument requires. But recall that Machery explicitly chooses to use the less precise phrase "severely deficient from an epistemic point of view" to avoid the controversies surrounding what is necessary or sufficient for knowledge (Machery, 2017, p. 97). However, because premise 1 is a generic statement that must be interpreted with universal quantification, its imprecise phrasing does not allow Machery to avoid the thrust of such controversies.

In sum, even though premises 1 and 4, as stated, avoid commitment to how reliability relates to more familiar epistemic notions like "justification" and "knowledge," it does so at the cost of being imprecise and uninformative. By and large, philosophers only accept these premises when they are put in these familiar epistemic notions and forbidden modal terms. Machery explicitly avoids this terminology because he wants to avoid weighing in on controversies surrounding "what is sufficient or necessary for justification and knowledge" (Machery, 2017, p. 97). But, Machery illicitly accepts a definition of reliability that is put in forbidden modal terms and is likely supported by forbidden philosophical cases.[13] Additionally, it is unclear how this imprecise language is helpful to Machery's project since it still commits premise 1, as a generic statement, to some forbidden modal connection between "unreliability" and being "severely deficient from an epistemic point of view" (cf. Nado (2022)). Thus, because *Consensus* either, by Machery's own lights, appeals to forbidden modal knowledge or likely makes Machery's argument (self-)defeat premises 1 and 4, *Consensus* does not provide adequate justification for these premises.

Against everyday cases

So, if not *Consensus*, what supports premises 1 and 4? As mentioned above, Machery is not a skeptic about everyday uses of the method of cases, or a general skeptic about modal knowledge. Because he holds that we often make reliable judgments about such cases, maybe premise 1 and 4 (as modal claims) are supported by everyday cases. While Machery does not explicitly say this is what warrants premise 1 and 4, he does provide what appear to be everyday cases that could reasonably be interpreted as supporting these premises. For premise 1, Machery provides the following case:

> If judgments produced by an unreliable process were not severely deficient from an
> epistemic point of view, then choosing what to believe by random (by, e.g. throwing

a coin to decide what to believe) or choosing on the basis of a process that works as designed but does not do better than a random process would result in epistemically appropriate or only moderately deficient beliefs. (Machery, 2017, p. 97)[14]

Furthermore, Machery writes that he "will take Premise 4 for granted" but he explains that what it recommends is in line with the following practice:

> If I know that most eggs in a pack are rotten, the reasonable thing in the absence of further information is to throw out the *whole* pack. (Machery, 2017, p. 93)[15]

But, I argue, appealing to such (alleged) everyday cases will not help Machery support these premises.

To begin, let's focus on the coin flip example Machery uses to support premise 1: "Unreliable judgements are severely deficient from an epistemic point of view" (Machery, 2017, p. 102). Firstly, such examples cannot provide adequate support for this premise since there are other (supposedly) everyday examples that contradict this premise:

> **Singer**: Ashley is a professional singer who can correctly identify pitches by ear 45% of the time. While Ashley is unreliable at identifying pitches, she is attempting to acquire perfect pitch.

However, contra premise 1, although Ashley is unreliable at correctly identifying pitches by ear, she is (in some sense) extremely epistemically *proficient* at identifying pitches from an epistemic point of view: She nearly has a very rare and difficult ability to attain.

This counter-case illustrates the *fickle justificatory nature* of everyday cases in supporting imprecise premises, like premise 1. Singer is only able to contradict premise 1 because this premise uses "severely deficient from an epistemic point of view" instead of more precise characterizations like: "insufficient for justification" or "insufficient for knowledge." Clearly, Ashley would neither know nor be justified in believing that the pitch she auditorily identifies is correct. But, again, Machery explicitly avoids putting his argument's premises in these terms to avoid controversies surrounding justification and knowledge. And, again, to do so would seemingly commit himself to the kind of modal knowledge he denies we have access to. But it seems that Machery's premises need these notions (i.e., justification, knowledge, etc.) since without them it is not clear how Ashley's judgments, despite coming from her nascent and unreliable ability, are "severely deficient from an epistemic point of view." So, this provides more reason to believe that Unreliability is self-defeating or, by Machery's own lights, without justification, i.e., it seems it either relies on modal knowledge Machery forbids or needs to appeal to forbidden philosophical cases (instead of everyday cases like the coin flip example) to support its premises, contra Unreliability.[16]

The same points about the fickle justificatory nature of everyday cases can be made against the rotten eggs example Machery uses to support premise 4: "We ought to refrain from making a judgement of a particular kind K (i.e., we ought to suspend judgement of kind K) when most judgements of this kind are plausibly severely deficient from an epistemic point a view, except when this judgement is known to be an exception" (Machery, 2017, p. 103). Firstly, such examples cannot provide adequate support for this premise since there are other (supposedly) everyday examples that contradict this premise:

> **Surgery**: Imagine that I will certainly die unless I receive a lifesaving surgery. Unfortunately, there are only two options: Surgery 1 which has a 25% success rate or Surgery 2 which has a 45% success rate. Even more unfortunately, I have unknowingly been given misinformation about the success rates of these surgeries. I am told that Surgery 1 has a 40% success rate and Surgery 2 has a 30% success rate.

However, contra premise 4, in such a case I will not suspend judgment about which surgery I will request. Although both Surgery 1 and 2 are severely deficient in saving lives and I can neither reliably judge whether I will survive my operation nor know which surgery is best (since I have been given misinformation), I will and ought to pick Surgery 1 over suspending judgment and certain death. Furthermore, I will and ought to (incorrectly) *believe* this procedure is the best option, even though judgments based on misinformation are plausibly severely deficient from an epistemic point of view, contra premise 4.

This counter-case further illustrates the fickle justificatory nature of everyday cases in supporting imprecise premises, like premise 4. Surgery is only able to contradict premise 4 because this premise uses "severely deficient from an epistemic point of view" instead of more precise characterizations like: "insufficient for justification" or "insufficient for knowledge." Clearly, I would neither know nor be justified in believing I would survive the surgery. I also would neither know nor be (ultima facie) justified in believing Surgery 1 is the best option (because it is based on misinformation). But, again, Machery explicitly avoids putting his argument's premises in these terms to avoid the controversies surrounding justification and knowledge. And, again, to do so would seemingly commit himself to the kind of modal knowledge he prohibits. But it seems that Machery's premises need these notions (i.e., justification, knowledge, etc.) since without them it is not clear how preferring Surgery 1 is still "severely deficient from an epistemic point of view," nor is it clear that I should refrain from *believing* Surgery 1 is the best option.[17]

In sum, the above cases show *Everyday Cases* cannot provide adequate support for premises 1 and 4. Specifically, such cases provide more reason to

believe that Unreliability is self-defeating or without justification since for these premises to circumvent counterexamples and the fickle justificatory nature of everyday cases, they need to be made more precise. But doing this likely requires either relying on modal knowledge Machery forbids and/or needing to appeal to forbidden philosophical cases (instead of everyday cases) to support these premises.

Against obvious

Rather than use everyday cases to justify premises 1 and 4, Machery could be interpreted as arguing that these premises are obviously true upon reflection, and that everyday cases merely *illustrate* them. This is because Machery (2017, p. 15) explains that his attack on philosophers' use of the method of cases does not impugn the use of such cases in all contexts. He argues that using cases to *illustrate* abstract philosophical notions and distinctions is innocuous and exempt from his argument which attempts to undermine the alleged *justificatory* nature of philosophical cases (Ibid). Machery could appeal to this distinction and argue that his above cases are merely meant to illustrate the content of his premises but do not attempt to justify them since that would lead to the self-defeat worries above.

But this is a potentially problematic move for Machery since appealing to this distinction would seem to severely limit the scope of Unreliability. If philosophical cases can serve a merely illustrative function, then this offers a way for proponents of the method of cases to avoid Machery's argument entirely. For instance, on this construal the experience machine thought-experiment would be merely illustrating the claim that having real world experiences are often considered to be more valuable than virtual experiences. It seems that a similar move can be made for all the philosophical cases examined in the x-phi literature (cf. Strohminger (2018)). Additionally, and more worrisome for Machery, it is not clear that Machery can appeal to this distinction between illustrative versus justificatory cases. Firstly, this distinction pulls apart what typically goes together in everyday life. Indeed, it seems that appealing to everyday cases often serves to *both* illustrate and justify the claims we are making, and this seems to be true of Machery's examples above (e.g., coin flip, fake bill detector, etc.). Second, because this distinction pulls apart what typically goes together in everyday life, by Machery's reasoning this distinction will seemingly have to be justified by cases which will likely have the disturbing characteristics Unreliability forbids. So, this is not a way Machery can avoid the challenge of self-defeat while retaining his pervasive philosophical skepticism.

Additionally, there is another even more pernicious way that Unreliability is self-defeating. To see why, it is first important to note that in surveying the vast x-phi literature to support his second premise (i.e.,

"Judgements elicited by most of the philosophical cases that have been examined by experimental philosophers are unreliable" (Machery, 2017, p. 102)), Machery overlooks a study by John Turri (2016). Turri presents nine experiments that he argues show that unreliably produced knowledge is compatible with our everyday folk intuitions about knowledge. In other words, Turri argues that non-philosophers are likely to judge that unreliable judgments are *not* always severely deficient from an epistemic point of view, but are often conducive to acquiring *knowledge*. This empirical study directly contradicts premise 1 of Machery's argument and, if cogent, it shows that premise 1 is *not Obvious* to non-philosophers. Additionally, if Turri's study is cogent and non-philosophers hold that unreliable judgments can deliver knowledge, then to non-philosophers it is also *not Obvious* that we should refrain from making unreliable judgments, contra premise 4. Thus, Turri's x-phi study empirically challenges both premises 1 and 4 of Unreliability.

Likewise, if cogent, Turri's (2016) study shows an additional way that Machery's argument is self-defeating. The goal of Machery's argument is to show how the negative x-phi literature undermines "philosophers' flights of fancy" by showing that "resolving many traditional and contemporary philosophical issues is beyond our epistemic reach" (Machery, 2017, p. 1). But if Turri's study is correct, then Machery's argument was presupposing some claims about reliability that are also (allegedly) beyond our epistemic reach.[18] While Turri's (2016) study can be resisted in several ways, it will be extremely difficult *for Machery* to deny the cogency of Turri's (2016) study without also thereby undermining some of the empirical support for Unreliability. But unless Machery can deny the cogency of this study, his first premise is defeated by his own conclusion.

To demonstrate, let's consider one of Turri's (2016) experiments that seems to support the claim that non-philosophers are willing to ascribe knowledge to agents who have unreliable abilities. A portion of Turri's 136 participants read the following case involving Alvin who has a true but unreliably produced belief:

> Alvin is very unreliable at remembering driving directions. Today he is visiting a friend in an unfamiliar town. Alvin needs to pick up a prescription while he is there, so his friend gives him directions to the pharmacy. On the way, Alvin needs to make a right turn at the intersection. Alvin gets to the intersection and turns right. (Turri, 2016, p. 205)

After reading this case, participants were asked whether Alvin "knew/only thought" that he should turn right to get to the pharmacy. Participants who read this case overwhelmingly attributed knowledge to Alvin (77%) despite his unreliable memory.

This empirical support is particularly troubling for Machery since this case does not have any of the disturbing characteristics that he claims philosophical cases typically have: an unusual hypothetical case that pulls apart what typically goes together. Indeed, being unreliable at remembering driving directions is an everyday occurrence that many can directly relate to through their own experience. And if not, it is well within any competent adult's capacity to imagine such an everyday case. As such, Machery cannot write off this case as suspicious because it is unusual or philosophically extravagant (more on this below).

It seems then that Machery must challenge the nuts-and-bolts of this study. While I do not want to pontificate on how Machery would challenge Turri's study, what I will say is that this is a dicey proposition for Machery. Since Turri's study is done with the same methods and statistical rigor as many other x-phi studies, challenging the nuts-and-bolts of this study is likely to impugn other x-phi studies that Machery relies on in supporting premise 2 of Unreliability. In effect, by challenging Turri's study to prevent Unreliability from being empirically self-defeated, Machery will likely be challenging much of the empirical support for his own argument.[19]

Furthermore, in addition to contradicting *Obvious*, Turri's (2016) study is additionally significant because it also serves to further prevent *Consensus* and *Everyday Cases* from supporting premises 1 and 4 of Unreliability. First, recall that the overall aim of Unreliability is to use negative x-phi studies to challenge the (alleged) consensus amongst philosophers that the method of cases can allow us to know modal truths about the metaphysical nature of things philosophers are interested in. But by showing that non-philosophers by and large do not think that unreliable judgments are severely deficient (from an epistemic point of view) or that we should refrain from making unreliable judgments (i.e., since such judgments can result in knowledge), Turri's x-phi study also challenges the (assumed) *Consensus* amongst philosophers that these are the case, contra premises 1 and 4. Indeed, since Machery skepticism relies on negative x-phi studies regarding the intuitive judgments of non-philosophers, Machery cannot dismiss Turri's study without then being inconsistent in his skeptical reasoning against the method of cases. Second, as mentioned above, Turri's study uses cases, like the one involving Alvin, which do not appear to have the disturbing characteristics that Machery claims philosophical cases typically have. But it wasn't mentioned above that because of this it seems that Turri's cases are *everyday* cases. Thus, contra Machery, non-philosophers do not hold that everyday cases straightforwardly support premises 1 and 4, and so, by Machery's and negative x-phi's own lights, *Everyday Cases* also does not provide adequate support for premises 1 and 4.

In sum, Machery cannot appeal to a distinction between using cases to illustrate vs. justify to support that premises 1 and 4 are *Obvious*

because this would severely limit his philosophical skepticism, and this distinction itself might have disturbing characteristics Machery's argument forbids. Additionally, according to Turri (2016) non-philosophers do not find premises 1 and 4 to be *Obvious* since they largely allow for unreliable judgments to lead to knowledge. Moreover, Machery is unlikely to challenge Turri's study since Turri uses cases without disturbing characteristics and challenging Turri's study would likely undermine the empirical support Machery provides for Unreliability. Lastly, Turri's (2016) study also further prevents *Consensus* and *Everyday Cases* from supporting premise 1 and 4 of Unreliability: viz. non-philosophers do not agree with the (alleged) philosophical consensus on these premises, nor do they think that everyday cases straightforwardly support these premises.

3. Against empirical challenges to philosophical methodology and knowledge

Overall, *Consensus, Everyday Cases*, and *Obvious* cannot support premises 1 and 4 because Unreliability seems to be unavoidably self-defeating or, by Machery's own lights, without justification. Premises 1 and 4 seem to either rely on modal knowledge Machery forbids or philosophical cases Unreliability bans. And, neither of these premises can be supported by everyday non-philosophical cases since such cases have a fickle justificatory nature in supporting imprecise premises. Lastly, Machery overlooks some empirical evidence that undermines two premises in his argument, which he cannot challenge without likely impugning the empirical support for Unreliability and philosophical skepticism.

This result against Unreliability is significant because, as mentioned in the introduction, Machery (2017) provides the most widely cited and discussed x-phi arguments for philosophical skepticism, and many hold that Machery provides the most empirically informed, convincing, and thus best case for this kind of skepticism (see Deutsch (2020); Akagi (2019); and Drożdżowicz et al. (2018)). Thus, if my arguments are sound, then the best x-phi argument for philosophical skepticism fails.

Additionally, I argue that this result provides strong reason to believe the more general conclusion that negative x-phi is likely doomed: x-phi likely can *never* substantively threaten philosophical skepticism. For, if the best argument, using 20 years of negative x-phi studies, cannot establish an extensive philosophical skepticism, then it is unlikely that more negative x-phi studies will accomplish this. This argument can be rendered as:

Pessimistic meta-induction against negative X-Phi

  (I) If research R has had an adequate amount of time and resources to establish X, and R has failed to establish X, then X will likely not be established by R.

 (II) Negative x-phi has had an adequate amount of time and resources to establish an extensive philosophical skepticism, and negative x-phi has failed to establish this.

(III) Thus, an extensive philosophical skepticism will likely not be established by negative x-phi.

Premise I is an instance of the widely accepted principle that, under certain conditions, absence of evidence is evidence of absence, viz. the belief that a view is unlikely to be true, can be inductively justified when a sufficient number of qualified researchers have been unable to acquire evidence to justify believing this view – despite such researchers having a sufficiently long period of time and resources to deliver such evidence. And premise II first takes my argument that Machery's Unreliability argument (with its use of 20 years of negative x-phi studies) fails to establish an extensive philosophical skepticism, and then it (controversially) uses this failure to brand negative x-phi (and its decades of x-phi studies) as also failing to establish an extensive philosophical skepticism (more on this premise below). And the conclusion inductively infers the more general claim that negative x-phi also likely cannot threaten philosophical knowledge or establish philosophical skepticism (more on this inductive inference below). In short, if Machery (2017) is the best x-phi case against the method of cases (i.e., a (allegedly) central philosophical methodology) and against philosophical knowledge, we philosophers likely have nothing to fear from negative x-phi.

    Assuming that my arguments against Unreliability are sound, proponents of negative x-phi like Machery are likely to deny premise II in either of two ways. First, they may claim that x-phi has not had adequate time or resources to run studies to conclusively demonstrate whether philosophical methodology is flawed. Second, they may argue that even if my arguments demonstrate Unreliability fails, this is only one x-phi argument for philosophical skepticism. Afterall, my contention that *Consensus, Everyday Cases*, and *Obvious* cannot support premises 1 and 4 is an argument by elimination. And like any argument of this form, one might challenge my argument by holding that with alternative support, and/or proper refinements, to its premises, a proponent of negative x-phi could potentially produce a modified or different argument for philosophical skepticism that is successful (i.e., non-self-defeating). So, even if my arguments above are sound, either way they have (at best) a temporary significance until more studies are run and/or better arguments are developed.

In my view, these potential responses should only provide cold comfort to proponents of negative x-phi. They both optimistically assume that future x-phi studies and future argumentative creativity will vindicate Machery's critiques of the method of cases and/or his philosophical skepticism. But it is not clear if this optimism is warranted before these studies are conducted or these new arguments have been formulated since there is no guarantee of this vindication. Indeed, Machery's own reasoning in Unreliability, especially premise 4, dictates that negative x-phi is guilty until proven innocent (see the end of Section 1). In other words, because every way to support premises 1 and 4 is severely deficient from an epistemic point of view (i.e., because they are epistemically self-defeating or without justification), by Machery's own lights, we ought to suspend judgment on the pronouncements of negative x-phi's empirical studies so we currently cannot trust the ability of x-phi to support or undermine philosophical knowledge.[20]

However, to further respond to this optimism, the rest of this section argues for a more general pessimism against the possibility that more studies or future arguments will *ever* substantially threaten philosophical knowledge. Specifically, I hold that the long history of empirical challenges to philosophical knowledge both from x-phi *and* eras prior to x-phi provides a strong inductive base to support the claim that: broad arguments against philosophical knowledge that use empirical premises will likely be self-defeating. For clarity, I am making the following additional argument (which serves to both bolster and broaden premise II above):

Pessimistic meta-induction against empirically supported philosophical skepticism

(I) If most empirical arguments for philosophical skepticism to date are self-defeating, then future empirical arguments for philosophical skepticism will likely be self-defeating.

(II) Most (if not all) empirical arguments for philosophical skepticism to date are self-defeating

(III) Thus, future empirical arguments for philosophical skepticism will likely be self-defeating.

Premise IV is motivated by the same considerations that Machery uses to support the "inductive step" of Unreliability (i.e., premise 3). Indeed, as Machery himself notes, such inductive premises are crucial for generally impugning philosophical methodology and establishing a broad philosophical skepticism. For this reason, this premise is unlikely to be challenged by proponents of empirical arguments against philosophical knowledge. Premise V makes an empirical claim about the history of philosophy that

forms this argument's "inductive base." The rest of this section defends this premise.

To begin, I should note that self-defeat worries are prevalent in the (negative) x-phi literature. For example, Machery (2017, p. 92) himself explains that the underlying argument schema for Unreliability is shared by other prominent arguments for philosophical skepticism. Rather than rely on the notion of "unreliability" or target the "method of cases" as Machery does, other authors target philosophers' appeal to "intuition" generally and use different notions to identify the flaw in this philosophical practice. For example, Cummins (1998) argues that intuitive judgments should be discounted because they cannot be "calibrated," while Weinberg (2007) argues that intuitive judgments should be abandoned because they are "hopeless." In response to these and similar arguments, Pust (2019) argues that each of these arguments is self-defeating: the premises of Cummins argument cannot be calibrated, and some of the premises of Weinberg's argument are hopeless. Indeed, Nado (2015, 2016) argues that negative x-phi challenges to philosophical methodology and knowledge will inevitably be self-defeating unless the scope of these challenges is severely limited.[21] Machery is aware of the self-defeat worries but (presumably) believes that putting his argument in terms of "unreliability" can avoid such worries. However, as shown above, my novel arguments above against Machery's attempts to support premise 1 and 4 of his argument fail to adequately avoid self-defeat.

Additionally, self-defeat worries for intuition skepticism pre-date the x-phi literature. Pust (2019) provides additional examples of explanatory arguments (from Harman (1977)) and Benacerraf-like arguments (adapted from Field (1989)) for intuitions being unable to adequately justify philosophical beliefs. But Pust argues that both kinds of arguments also befall, what he calls, the "non-self-undermining constraint," i.e., the premises of these arguments are unjustified by these arguments' own lights. Additionally, Bealer (1992) and BonJour (1998) have each argued that positions and arguments against the use of intuitions will inevitably be self-defeating (cf. Huemer (2007)). Furthermore, to my knowledge, *every* empirical argument for philosophical skepticism leads to self-defeat. Indeed, considerations of self-defeat have, historically, often been used to defend philosophical knowledge from such arguments. For example, against Hume's and Tom (1999) empiricist argument at the end of the *Enquiry* which decrees that large portions of philosophy (esp. metaphysics) should be "consigned to the flames," some commentators have argued that much of the philosophy he condemns is used to support his philosophical skepticism (cf. Bealer (1992)). Similarly, against verificationism's claim that many philosophical words (esp. those in ethics and metaphysics) are meaningless

because they cannot be verified by observation, commentators have argued that verificationism itself would be meaningless by this standard.[22]

While more examples can be provided, I believe all these recent and historical examples above are sufficient to support premise V by demonstrating that self-defeat has figured prominently against empirical challenges to philosophical knowledge. Consequently, these empirical considerations provide a difficult challenge to all potential empirical arguments for philosophical skepticism: they will very likely be self-defeating.

Before concluding, I will respond to some potential objections and clarify my arguments above. Firstly, one might object that I have not addressed what I call "limited scope" or "piecemeal" arguments against the method of cases and for philosophical skepticism. Briefly, such arguments hold that negative x-phi studies show that we should be skeptical of *only* those philosophical claims and theories who rely on intuitive judgments from cases that have been tested and found to elicit unreliable judgment from non-philosophers. *Prima facie*, this limited or piecemeal kind of skepticism can potentially avoid many of the self-defeat worries argued for above. This is because by only targeting *particular* philosophical cases and instances of philosophers' use of the method of cases rather than, as Machery does, generally challenging the way philosophers tend to use the method of cases, this argument could avoid incriminating itself (cf. Nado (2015, 2016)) (Machery, 2017, pp. -181–2) considers and rejects such arguments).

In response, it is not obvious that even such limited skeptical arguments would avoid self-defeat. This is because it seems that Machery is right that, by and large, negative x-phi studies attempt to show that intuitive judgments about philosophical cases are *unreliable*. But this means even such limited arguments likely will rely on something like premise 1 or 4 of Machery's Unreliability argument. This is problematic because even if these premises are allowed to remain vague and/or rely on some (likely forbidden) modal knowledge, these premises still will be at odds with the results of Turri's (2016) x-phi study explained above. Indeed, Turri's (2016) study seems to provide an empirically based self-defeat challenge to *all* potential x-phi arguments to the effect that intuitive judgments about philosophical cases are unreliable.

However, even if such limited or piecemeal arguments can avoid being self-defeating, they do so at the expense of failing to substantively challenge philosophical methodology or knowledge. As many commentators have argued, such arguments only seem to be able to establish that we philosophers "have to be *careful* in how we use intuitions, not that intuition is useless" (Sosa, 2007, p. 105, original emphasis).[23] The same point can be made for the method of cases: negative x-phi shows that we philosophers should be careful in how we formulate our cases, not that such cases are

useless (cf. Swain et al. (2008); Alexander and Weinberg (2020) and Deutsch (2020)). This is an important point because it allows me to respond to another potential objection: Since I argue that negative x-phi studies (and all empirical challenges) are very unlikely to substantially threaten philosophical methods or knowledge, does this entail I hold that negative x-phi is useless or without merit? No, my arguments are compatible with the position that x-phi can and does provide valuable insights that philosophers can and do benefit from (cf. Alexander and Weinberg (2020)). My arguments only challenged the extensive kind of philosophical skepticism from empirical considerations (e.g., Machery's Unreliability argument). But how exactly and to what extent empirical methods like x-phi can be useful to philosophers is beyond the scope of this paper.

In conclusion, if my arguments above are sound, then not only does the best x-phi argument for philosophical skepticism (i.e., Machery's Unreliability argument) fail, but this provides strong reason to believe that negative x-phi likely cannot substantially threaten philosophical knowledge. I further argue that empirically minded arguments for philosophical skepticism are likely to fail for these same reasons. I take this to be a significant result that casts serious doubt on the ability of x-phi studies or empirical considerations generally to argue for a broad philosophical skepticism. In short, empirical results are unlikely to ever substantially threaten philosophical knowledge.

Notes

1. Indeed, as an expert and leading figure in experimental philosophy (see Li and Zhu's (2023, p. 37)), Machery aims in his book to "articulate and defend the strongest argument possible bringing experimental-philosophy results to bear on the validity of the method of cases" (Machery, 2020, p. 771; cf.; Machery, 2022, p. 305). Additionally, it is a widely reviewed book, e.g., see Baz (2020), Crandall (2022), Levin (2019), Springle (2019), Strevens (2019), Symons (2022), and the additional references in fn. 3.
2. Lewis (2018) is the exception because he raises, but does not pursue, the possibility that Machery's Unreliability argument is self-defeating.
3. Specifically, Machery (2017) provides two other arguments called Dogmatism and Parochialism which, according to Machery, together form a dilemma that also leads to philosophical skepticism. As mentioned, I will set these arguments aside in part because, by my reading, Unreliability is Machery's central argument against the method of cases and argument for philosophical skepticism (cf. Levin, 2019, p. 231). See Setiya (2018), Hughes (2019), and Deutsch (2020) for challenges to these other arguments. But, for what it is worth I will say that Dogmatism is problematic because it relies on Conciliationism – a controversial view in the peer disagreement literature that holds when acknowledged epistemic peers recognize they disagree on p, that they should suspend belief or significantly reduce their confidence in p. Among the many challenges to Conciliationism, probably the most serious is the

self-undermining challenge: because acknowledged epistemic peers recognize they disagree on Conciliationism itself, by this view's lights, we should suspend belief or significantly reduce confidence in it (see Christensen (2009), Decker (2014), Dixon (2024) among others). Machery (2017) does not discuss this central issue facing this horn of his dilemma, and without a plausible response to it, along with responses to the other challenges to Conciliationism, there is ample reason to hold that the Dogmatism horn of his additional dilemma for philosophical skepticism is unsuccessful.

4. Machery (2017, pp. 118–120) also argues that philosophical cases are problematic because the inextricable entanglement of "superficial and target content" of cases, i.e., it is the narrative elements of a case that people often respond to and not what is relevant for philosophical purposes. I will set this complication aside in this paper since it will not factor into my arguments.

5. "A situation or event (type) is unusual if and only if we encounter it infrequently or if we rarely read texts about it" (Machery, 2017, p. 113) and "A situation or event is unusual if and only if it occurs infrequently" (Machery, 2017, p. 117).

6. See Machery (2017, pp. 58, 63, 65, 83, 86–87) for Machery's discussion of these studies.

7. To this end, Machery (2017, p. 103) also assumes for the sake of argument that certain error theories about the nature of things that philosophers are interested in (e.g., normativity, right action) are false.

8. Along with the conclusions of Dogmatism and Parochialism, see fn. 3.

9. For example, one could challenge his characterization of philosophy and its use of the method of cases, one could challenge whether or the extent to which the negative x-phi literature supports the unreliability of current philosophical cases (premise 2), one could challenge whether the current negative x-phi literature warrants an inductive generalization or general pessimism against all potential philosophical cases (premise 3), or one could challenge Machery's characterization of philosophical cases as often requiring the disturbing characteristics he mentions. While I believe that these, and other, challenges to Machery's Unreliability Argument are worthwhile (cf. Lewis (2018) who raises many of these, and other, challenges), I will set these challenges aside and assume for the sake of argument that these features of Machery's argument are correct.

10. To be clear, it is both the conclusion of Unreliability and the premise from Modal Ignorance I grant from the previous section (viz. the method of cases is the *only* way for philosophers to acquire the modal knowledge they seek), that gets this result. However, for ease of exposition, I will put this complication aside since, as mentioned at the end of Section 1, this assumption is central to the ultimate aim or epistemic significance that Machery intends for Unreliability. Thanks to my anonymous reviewers for pushing me to clarify this.

11. See Turri (2015) for more references.

12. These examples are taken from Leslie and Lerner (2016).

13. I say "likely" because I have said nothing yet against the possibility that everyday cases can support these premises. The following section addresses this.

14. I should note that this case might have the disturbing characteristics that Machery abhors: It is unusual, and it seems to pull things apart that typically go together. How often does one decide what to believe based on a coin flip? However, I will set this issue aside since Machery's "disturbing characteristics" are too imprecisely defined to make this determination.

15. Machery (2017, pp. 110, 183) also uses similar examples to support premise 3 (i.e., the inductive step) of his argument.

16. One might object that flipping a coin is disanalogous to Singer. Flipping a coin gives one no ability to attain true beliefs while Ashley has at least some ability to do this (i.e., flipping a coin in no way tracks the truth while Ashley is (unreliably) tracking the truth). While I agree, this disanalogy does not help premise 1 since both are still "unreliable" by the definition Machery takes from Goldman and Alston. Furthermore, it does not matter that they are unreliable in different ways. Specifically, I agree with Turri (2015, p. 533) that "unreliability does not equal inability." To deny this, is tantamount to denying the existence of nascent abilities.

17. Machery (2017, p. 147) notes that there are counterexamples to premise 4 but replies that they can be avoided if the scope of this premise is restricted to only apply to when we can come to know "which option, if any, will allow us to bring about our goal and when we must make a choice." This defense of premise 4 fails to block Surgery from being a successful counterexample since it is easy to imagine that I can correct the misinformation I have been given and come to know which option will further my goal of increasing the likelihood that I will survive the operation, i.e., Surgery 2.

18. I should note that Machery (2017, p. 97) mentions and briefly discusses another paper by Turri (2015) that argues for unreliable judgments being able to produce knowledge. Machery argues that he and Turri "concur on the importance of reliability in the present case" since they both agree that achievement of knowledge "requires doing substantially better than luck." But this is incorrect since Machery wishes to deny that unreliable judgments can produce knowledge while Turri's (2015, 2016) accept this. See Dixon (2020) for a reply to Turri (2015).

19. Of course, Machery could argue that this kind of problem is only temporary since more testing should be done to see if Turri's findings are replicated. If they are not, then Machery can avoid the problems raised by Turri's study and potentially involve the exception clause in premise 4 of Unreliability. While I admit this would help Unreliability against Turri's study, until such testing is done, Machery's own argument dictates we should suspend judgment about the cogency of premise 1 and 4.

20. However, this pessimistic meta-induction does not yet necessarily imply that researchers (in philosophy or in science) ought to abandon their favorite theories or research projects. See Fleisher (2018).

21. Later in this section I address whether such limited arguments can avoid self-defeat.

22. See Creath (2022) for a summary of how the Logical Empiricists (esp. Carnap) responded to the "self-undercutting" problem. Additionally, if my contention is correct that *every* past empirical argument for philosophical skepticism has been self-defeating, then this immunizes my argument from some common responses to pessimistic inductions, viz. my argument doesn't rely on a biased or cherry-picked sample of past theories or views, this sample is not small or non-representative, etc.

23. I should note that Machery (2017, pp. 171–175) responds to this kind of "fallibility response" by arguing that (negative) x-phi studies show, contra Sosa, that we should not just be careful in using intuitive judgments about cases, but that philosophers' are unable to use this method to acquire that modal knowledge they seek. However, Machery's response relies on Unreliability and, as I have shown above, this argument is unavoidably self-defeating.

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Disclosure statement

ORCID

Jonathan Dixon 🔗 http://orcid.org/0000-0003-4040-7289

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