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# How to get Certain Knowledge from Fallible Justification

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## Abstract

“Real knowledge,” as I use the term, is the most highly prized form of true belief sought by an epistemic agent. This paper argues that defeasible infinitism provides a good way to characterize real knowledge and it shows how real knowledge can arise from fallible justification. Then, I argue that there are two ways of interpreting Ernest Sosa’s account of real knowledge as belief that is aptly formed and capable of being fully defended. *On the one hand*, if beliefs are aptly formed only if they have a specific causal etiology, namely that they are efficiently caused fully or partially by virtuous characteristics of the epistemic agent, then Sosa’s account falls prey to what I call the problem of the Hazard of Empirical Disconfirmation (HED). The HED problem applies to all forms of causal accounts of real knowledge and is simply that as we gain more empirical knowledge about the causal origins of our true beliefs that are the most highly prized we will discover that they do not always (or even hardly ever) satisfy the required efficient causal constraints. Bluntly put, having sufficiently good reasons for our beliefs might not require that the beliefs have the requisite efficient causal etiology. *On the other hand*, there is a way of interpreting Sosa’s views that does not include an efficient causal prerequisite. That interpretation makes Sosa’s account of real knowledge almost identical to defeasible infinitism but expressed in an alternate vocabulary. Such a view is not subject to the HED problem and it can solve the deep problem in epistemology, namely how to get epistemically certain (as opposed to psychologically certain) knowledge from fallible justification.

**Keywords:** apt belief; certainty; defeasibility; efficient causation; epistemology; infinitism; justification; material causation; real knowledge; Sosa; virtue epistemology

## Introduction

Real knowledge is the most highly prized form of true belief sought by an epistemic agent.<sup>1</sup> But it is not the only kind of knowledge. Think of *real* knowledge this way:

<sup>1</sup>In the *Meno* Plato writes:

To acquire an untied work of Daedalus is not worth much ... but is worth much if tied down, for his works are very beautiful. What am I thinking of when I say this? True opinions. For true opinions, as long as they remain, are a fine thing ... but they are not willing to remain long; and they escape from a man’s mind, so that they are not worth much until one ties them down by (giving) an account of the reason why ... After they are tied down, in the first place they become knowledge and then they remain in place. *That is why knowledge is prized higher than correct opinion, and knowledge differs from correct opinion in being tied down.* (Plato 1997: *Meno*, 97e–98a) (emphasis added)

For a more fully developed account of real knowledge see Klein (1983, 2017).

At a horse auction, when the auctioneer says, while pointing at an exquisite steed, “Now, ladies and gentlemen, this is a *real* horse,” she does not mean to be implying that all the other horses, even the nags, weren’t horses; what she means is that this horse is a paradigm example of a horse. It is the kind of horse sought by hippophiles – lovers of horses.

Of course, as epistemophiles, we seek true beliefs that are justified. In addition, a lesson many of us learned from the Gettier literature is that we seek more than mere justified true belief because justification, truth and belief can be accidentally conjoined.

That is a very old lesson that we could, perhaps should, have gleaned from Plato’s *Theaetetus*, Aristotle’s *Posterior Analytics*, and the vast literature on the various forms of *scientia*.<sup>2</sup> What we want is a type of certainty, i.e., justifications that assuredly lead to the truth and are not subject to any legitimate doubts.<sup>3</sup>

The problem, what I call the “deep puzzle,” is that it seems virtually, if not actually, impossible to obtain the kind of truth-guarantee that we seek. Perhaps, like seeking the Fountain of Youth, it is just a will-o-the-wisp and should be abandoned.

I don’t think so, and the purpose of this paper is to provide some reasons for thinking (1) that a combination of the defeasibility theory and infinitism (call it “defeasible infinitism”) is a good way of solving the deep puzzle in epistemology and (2) that defeasible infinitism is a better way of addressing the problem than are the various theories about how our beliefs are caused. The deep puzzle is simply this: How can real knowledge, i.e., certain knowledge, arise from fallible justification?

I’ll first set the stage in [section 1](#) by clarifying the deep puzzle. In [section 2](#), I will discuss two forms of certainty, psychological and evidential, in order to show that the specific form of certainty sought by epistemic agents is objective doxastic evidential certainty. In [section 3](#), I’ll make clear what I mean by “fallible justification.” In [section 4](#), I will show why the various forms of etiology of belief theories (reliabilism, tracking, safety, and virtue views) are subject to a serious problem. The problem is what I call the “Hazard of Empirical Disconfirmation” (HED). Then, in sections 5 and 6, I’ll present defeasible infinitism and explain why it is not subject to the HED problem and show how it can solve the deep puzzle and, as an added bonus, solve the Gettier Problem. I will explain, but not *directly* defend, defeasible infinitism. Nevertheless, this paper is an *indirect* defense because it shows some good consequences of defeasible infinitism.

Finally, in [section 7](#), I will examine Sosa’s version of virtue epistemology and show that it is subject to the HED problem *iff* it is understood as I think it commonly is.

In the usual understanding of Sosa’s view, the central concept of aptness is understood as requiring a specific type of efficient causal pedigree of the target belief. Such a view runs afoul of the HED problem. However, if “cause” is taken to refer to material or constitutive causation, then the view is not subject to the HED problem. Such an interpretation of virtue epistemology would make it a version of defeasible infinitism.

And, happily, all would be well in the world of epistemology.

<sup>2</sup>See Hilpinen (2017) and Pasnau (1995, 1997).

<sup>3</sup>At the outset I grant two things. First, sometimes we have to play the odds in coming to justifiably believe that *x*, but when we do, what we really know is, for example, that *x* is 99.9% likely to be true. We don’t really know that *x*. Often being more reasonable to believe that *x* is good enough (in gambling, for example). But the most highly prized form of true belief rises to the level of certainty. Second, there is a clear sense of “know” in which it is true that you know something, or even really know something, that you have not yet believed. For example, at time *t* most of us know that  $632 \times 2 = 1,264$  even though we never occurrently believe that. That would best be handled by adding a dispositional clause in the belief, justification and no-defeater conditions (the latter two to be explained later). But since this is a problem for every account of knowing-at-a-time, I think I can safely ignore that epicycle here.

## 1. Setting the stage

The deep puzzle in epistemology results from seemingly conflicting intuitions about real knowledge and justification. On the one hand, as epistemic agents we seek real knowledge that not only is true justified belief, but true justified belief that is tethered to the world because there are no grounds for genuine doubt. In other words, we seek a form of certainty, i.e., justifications that guarantee truth. But, on the other hand, we recognize that our methods of justifying our beliefs are fallible, i.e., susceptible to many kinds of errors. Echoing Descartes: If our methods of obtaining beliefs are fallible (and they certainly seem to be), the less perfect those methods are, the more likely we are to hold false beliefs.<sup>4</sup> Thus, the puzzle can be put more bluntly: How can real knowledge arise from fallible justification?

Unlike mere true justified belief, real knowledge is resistant to epistemic (as opposed to psychological) doubt. A doubt is *epistemic* when it contains a proposition which, if true, lowers the degree of justification of the propositional content of the belief below the level required for real knowledge. If a truth is really known, then there is no (obtaining) fact or combination of (obtaining) facts represented in a proposition which defeats the justification.<sup>5</sup>

## 2. Certainty

Certainty comes in two forms: *Psychological* certainty and *evidential* certainty. First, psychological certainty. A.J. Ayer wrote that knowledge is having the right to be (psychologically) sure (Ayer 1956: 31–5). Even if that were true (which I don't think it is), it is a right we should choose *not* to exercise. Norman Malcolm similarly claims that there is what he calls the “strong” sense of ‘know’ (Malcolm 1952). If S strongly knows that p at t, then at t, S has the *attitude* toward p which is such that were S to consider any counter evidence against p, S would deny the evidence if accepting it would rationally require S to give up believing that p. Again similarly, the dogmatic belief puzzle discussed by Harman and Kripke depends upon giving a psychological account of the certainty component of knowledge (Harman 1973; Kripke 2011). Roughly this view is that if S knows that p, then S is entitled to believe that all evidence against p is misleading.

Psychological certainty (as understood above) is what Sextus called “dogmatism.”<sup>6</sup> It is cheap and readily available to fools, fanatics, or the epistemically indolent. It can be

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<sup>4</sup>After Descartes rejects many reasons for radical skepticism, here is the one that he thinks is the strongest and the one he attempts to reject in the *Meditations*:

nevertheless in whatever way they suppose that I have arrived at the state of my being that I have reached – whether they attribute it to fate or to accident, or make out that it is by some continual succession of antecedents – since to err and deceive oneself is a defect, it is clear that the greater will be the probability of my being so imperfect as to deceive myself ever, as is the Author to whom they assign my origin the less powerful. (Descartes 1955: 147)

<sup>5</sup>It is important to keep in mind that a false proposition conjoined with a true one could override the justification. That might lead S to withhold or even deny the target proposition. S could lose her real knowledge that x by losing her belief that x. But that would not entail that she didn't have real knowledge that x when she had the belief. The justification would not be defeated (as I use the term because the conjunction is false, but it would be overridden (as I use the term) because overrides can be false. I hope that will become clear after the brief discussion of the defeasibility theory.

<sup>6</sup>See Sextus Empiricus' discussion of the two forms of belief in *Outlines of Pyrrhonism*, Bk I: 230–5 (Empiricus 1976).

purchased simply by closing one's mind to counter evidence, even to counter evidence that one possesses. You don't even need any evidence in favor of what you believe.<sup>7</sup> Being psychologically certain is not an epistemic achievement; it is epistemic hubris.

Our goal, as epistemic agents, is not psychological certainty. Real knowledge requires evidential certainty. That is typically difficult to obtain because it requires gathering and evaluating reasons for *and* against a proposition.<sup>8</sup> Roughly, what is required for a contingent belief to be evidentially certain is that the reasoning for the believed proposition guarantees that the proposition is actually true in this world.<sup>9</sup> The reasoning doesn't have to guarantee its truth in all or even any near worlds (except the actual one).

Maybe if the circumstances had been a little bit different, there would be a fact that would be such that the justification is defective. But just as a dollar that is accepted for payment in this world *and* in other possible worlds is worth no more to a miser in this world than a dollar that is only accepted in this world, a contingent belief that is certain in many possible worlds is worth no more to an epistemic agent in this world than a belief that is certain only in this world.<sup>10</sup> But this question remains: How can there be such a guarantee if the reasons for the belief aren't themselves guaranteed and the inference from them to the target belief is often something short of entailment? That's part of the deep puzzle.

Further, it is *doxastic* evidential certainty that is required for real knowledge, not mere *propositional* evidential certainty.<sup>11</sup> *A proposition is evidentially certain for S iff the reasons S has are sufficient to guarantee its truth in this world and S has no*

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<sup>7</sup>Interestingly, some epistemologists have claimed that nothing or almost nothing is psychologically certain. Unger, for example, argues that "certainty" (and he means psychological certainty) is an absolute term allowing for no degrees of doubt (Unger 1975). He would argue this way: Consider almost any proposition that you think is certain, say, that you now have a hand. Can't you imagine a proposition that is more certain, for example, either you have a hand or you don't? Further, he would argue that if any proposition is more certain than the target proposition, then the target proposition is not certain. He would parse the sentence 'x is more certain than y' as 'x is more nearly certain than y.' Hence, his unusual argument for the claim that ignorance is ubiquitous.

Nevertheless, although Unger is correctly describing the degrees of psychological confidence we *ought* to have toward most of what we believe (i.e., that none or almost none of them is certain), he is not describing the degrees of psychological certainty that we actually do have toward propositions. Unfortunately, we are often absolutely certain of many propositions.

<sup>8</sup>What about the general arguments for skepticism? One answer is to follow Hume's advice in dealing with skeptical doubts that "arise naturally." He said, I hope with some irony, that "carelessness and inattention alone can afford us any remedy" (Hume 1978: 218). My hope is based partially on the fact that he, himself, proposed a "skeptical solution" to the skeptical doubts. This is not the place to explore his solutions or to argue for my own solution which is that there are no good reasons to be an academic/Cartesian skeptic. I do think there are some good reasons to take Pyrrhonism seriously. Indeed, defeasible infinitism can be seen as just a form of Pyrrhonism. But that's a topic for another occasion. (See Klein 1995, 2004a, 2004b.)

<sup>9</sup>I will follow the ordinary custom of using 'belief' as it is used in ordinary English. That is, 'belief' can refer to the belief-state or it can refer to the propositional content of the belief-state. In most cases I think the context makes it clear whether I am referring to the belief-state or to its content. Where the context doesn't make it clear, I will clarify it.

<sup>10</sup>Kant's words were (in arguing that existence is not a property), "A hundred real thalers do not contain the least coin more than a hundred possible thalers" (Kant 1961: A599/B627).

<sup>11</sup>Roderick Firth (1978) introduced the distinction that has now become commonplace.

*ultimately overriding reasons.*<sup>12,13</sup> A *proposition* can be certain for S, but if S does not deploy those truth-guaranteeing reasons in justifying the proposition, the *belief-state* containing the proposition would not be evidentially doxastically certain.

It is crucial to note that I can deploy a reason for believing that *x* in order to justify *x* without it being the case that the belief with the reason as its propositional content efficiently causes the target belief. I deploy a reason by simply sincerely citing it as my reason.

In addition, if S deploys the wrong reasons for *x*, although she has the right reasons that she could deploy, her believing *x* is not doxastically evidentially certain. She must marshal the right reasons. Thus, mere propositional evidential certainty is a necessary but not sufficient condition of doxastic evidential certainty.

Let's be really clear here. I am *not* going to be arguing that such beliefs are, or even should be, psychologically certain. My claim is that there is a preferred available account of evidential certainty which explains how a belief can be doxastically certain even though it is not, and should not be, psychologically certain. Psychological certainty is closed-mindedness to future evidence and such dogmatism is not a characteristic of a responsible epistemic agent.

In addition, I do not mean to be talking about a possible form of *subjective* evidential certainty. My reasons for a proposition might entail that proposition and I might assign a subjective probability of 1 to the reasons, and, hence, my subjective evidential certainty for the proposition would be 1. Nevertheless, it might not be objectively doxastically certain for me because, for example, (1) I may have assigned too high a probability to the reasons or (2) it might be that I have overriding reasons that I have ignored or to which I have assigned too low a probability.

### 3. Fallible justification – some general comments

What makes a justification fallible? It is tempting to say that what makes a justification fallible is that the belief could be justified and false. Maybe this: A justification of *x* is fallible *iff*  $\Diamond(Jx \ \& \ \sim x)$ ? That seems intuitively plausible and it was a lesson that some people took from the Gettier paper. After all, Gettier's two cases begin with a false but justified belief, and he does appear to be stating a general principle when he says:

In the sense of 'justified' in which S's being justified in believing P is a necessary condition of S's knowing that P, it is possible for a person to be justified in believing a proposition that is in fact false. (Gettier 1963: 121, fn 1)

<sup>12</sup>At times in the history of the discussion of evidential certainty, only some types of propositions that I will take to be candidates for evidential certainty were considered eligible. I'm referring to the use of "scientia." That term is not univocal. Sometimes it has been limited to beliefs that are either self-evidently true or deducible from self-evident truths and sometimes it has been limited to those arrived at by rational intuition resulting from repeated, similar experiences. And sometimes it refers to what is the result of careful experimentation as long as the results are not inconsistent with the fundamental laws of nature. Sometimes it is claimed that it obtains only when the belief is also psychologically certain. (See Pasnau 1995, 1997.) I will not deal with any of these characterizations of evidential doxastic certainty. Doing so is not required because our task is the much more difficult one of solving the deep puzzle about how mundane empirical beliefs, e.g., *there's a sheep in the field*, can be doxastically evidentially certain.

<sup>13</sup>I say "ultimately" here because the overriding reason could, itself, be overridden. And the overrider of the overrider could be overridden, etc. I hope that will become clear after the discussion of the defeasibility theory.

But regardless of whether he was intending to state a general principle, his characterization of fallible justification does not state a necessary condition of fallible justification and it is misleading because, as we will see, it focuses attention on the truth or falsity of the target proposition rather than features of justification. It is not a necessary condition because (1) S can have a fallible justification for a necessary truth and (2) there are some contingent propositions such that if they are justifiably believed they have to be true.<sup>14</sup> For example, S can be justified in believing of a necessary truth that it is a necessary truth on the basis of being told it is necessarily true by a trustworthy person who believes that it is false but happens to mistakenly say that it is true.

Consider a great logician, Logiretta, who says of some formal system that it is complete; and further stipulate that the system is complete, and S's reason for believing that the system is complete depends upon Logiretta's testimony and the belief that Logiretta is a great logician. I take it that it is *not* possible for S's belief to be justified and false, because it is a necessary truth that the system is complete. Now, add that the logician had made two mistakes: (1) She had mistakenly come to believe that the system was incomplete and (2) she meant to say "The system is incomplete" but she was distracted and said "The system is complete." That is a case in which S's justification is fallible, because it is in fact defective, but it is not possible that S's belief is false.<sup>15</sup>

With regard to contingent truths, I leave it to the reader to see that if S believes *I have a belief that can be expressed in contemporary English by using sixteen English words*, then S has a contingent belief whose justification can be defective even though the belief cannot also be false. Further, I take it that although the cogito belief, "I exist," cannot be false it could have a defective justification, for example if I believe it because a little bird told me so rather than, for example, recognizing that if it is believed, denied, or withheld it is true.

In the cases I have mentioned so far the fact that both necessary truths and some contingent truths cannot be false if justifiably believed has nothing to do with the beliefs being *justified*. The beliefs can't be false even if they were not justified. But here's a contingent proposition which cannot be false because it is justified rather than because it is merely believed: *I have a justified belief*. If that belief is justified, then it cannot be false.

The upshot is that a justification can be actually defective, hence fallible, even if the belief cannot be false. I suggest that we look at what makes a belief justified rather than at the content of the belief or its modal status. The question we should be asking is this: What is it that makes a justified belief defectively justified? If only we knew the answer to that question, we could delineate the conditions in which fallible justifications lead to real knowledge because the justification is not defective.

In the next two sections, I will examine two approaches for providing an answer to that question:

- (1) views which hold that is the etiology of beliefs that distinguishes defective from non-defective justification;
- (2) views which hold that it is the quality of the reasoning for beliefs that distinguishes defective from non-defective justification.

<sup>14</sup>I discuss this more fully in Klein (2017).

<sup>15</sup>Iván Rodríguez, a graduate student at the Universidad Nacional Autónoma de México, has suggested to me another way to formulate Gettier style examples in which a necessarily true proposition is justified in a way that is defective. One can take the contingently true target proposition in one of the original cases, e.g., Brown is in Barcelona, and simply disjoin its negation. That is an instance of a completely generalizable way of justifiably arriving at any proposition of the form,  $x \vee \sim x$ , which would be a case of ignorance as S does not recognize that  $x \vee \sim x$  is a necessary truth. I hope that his paper will be published soon.

The upshot of the examination will be that only the quality of reasoning approach is acceptable – at least for now.

#### 4. Etiology of Belief Theories (EBT) and the HED problem

Recall that the deep puzzle is to explain how a fallibly justified belief can rise to the level of doxastic objective evidential certainty. Every Etiology of Belief Theory (EBT) holds that it is the causal history of the belief that determines whether the belief is sufficiently objectively doxastically evidentially certain to reach the level of real knowledge. The sought-after tether to the world is supplied by the manner in which the belief arises and/or is sustained. Some, but only some, etiologies of a belief are sufficient to convert a true belief into real knowledge. What differentiates the various species of EBTs is the set of the delineated criteria for a non-defective causal process. For example, does the process produce true beliefs sufficiently often in this and near possible worlds (Goldman 1979 [2012]: 46)? Or is the method by which the belief is produced sensitive to the truth of the belief (Nozick 1981: 167–288)? Or is the belief produced by a safe method (Sosa 1999)? Or is the belief the causal result of the activities of a virtuous mind (Zagzebski 1994, 1996)? Or does one have a true belief because it was adroitly formed (Sosa 1991, 2007, 2014)?

There are, of course, specific objections that have been developed to each EBT and the proponents of the views typically either seek to clarify them or they revise them in order to meet those objections. My claim here will *not* be that any of these views is incorrect.

Rather, my claim is that, at least for now and the foreseeable future, it is clearly premature to adopt any of them in so far as they entail some claim about the etiology of beliefs. I will discuss the general problem here and, later (in section 7), I will focus on Ernest Sosa's account in particular because I think it is the most promising of the EBT views.

The general problem with EBTs results from the fact that, at this point, we have no good way of identifying the causal origins of particular belief tokens. That is an extremely difficult thing to do. I call this the HED problem – the Hazard of Empirical Disconfirmation problem.

Let me illustrate what I mean. Suppose that Mr. Overdetermined (“Mr. O” for short) believes that it is raining after looking out his window and seeing what he takes to be rain. And let us suppose that it is raining and that he saw rain. But let us also suppose that unbeknownst to Mr. O there is a large sprinkler on the roof of the building that is spewing out droplets of water that look identical to the rain drops with which they are intermixed. It gushes so many of them that had it not been raining Mr. O would have justifiably (but falsely) believed that it was raining. Let us stipulate that roughly 50% of the droplets Mr. O sees were rain drops. Does he really know that it is raining?

I'm not sure what the clear answer is or even whether there is a clear answer. I hope you share that hesitancy and I will return to this case later. But for now, I just want to use this case to illustrate the general difficulty I see with all of EBTs.<sup>16</sup>

Suppose that Mr. O finds out about the sprinkler and (remotely) shuts it off. Because it is raining, he then sees only raindrops and justifiably believes that it is raining. In addition, I think it is now clear that, *ceteris paribus*, he would then really know that it is raining.

<sup>16</sup>Keith Lehrer and Tom Paxson (1969: 236–7) present a case, somewhat similar in structure to the one I give here, as evidence for the claim that what I call ‘Etiology of Belief Theories’ are false. I don't think such cases, as presented, provide evidence for the claim that those theories are false because the cases, as described, are compatible with the truth of those theories. It is an, as yet, undecided empirical issue. I will argue later that defeasible infinitism can accommodate either empirical result.

The question at this point is: Does the belief-state with the content that it is raining have a new cause? Mr. O certainly has new *reasons* for his belief. And now his reasons are good ones and, by stipulation, satisfy the justification condition in knowledge. But, according to the EBTs, in considering whether his belief is now knowledge and earlier it wasn't knowledge or at least it wasn't clearly knowledge, we have to determine whether the cause of his belief-state has changed. Was it just the same belief-state token that endured and now has a new, sustaining cause? Or is it an entirely new belief-state token? Or did the original belief-state token remain by inertia, so to speak?

Consider what we might try to do to determine whether the belief-state has a new cause. Could we just ask Mr. Overdetermined whether it has a new cause? No. He certainly cannot tell that by introspection. He can tell that he has the belief and he has new reasons. But can he somehow introspect and, thereby, determine that the cause has changed? Of course not. We can't even "extrospect" that a specific external event is the cause of another external event. It takes a lot of work to determine that one event caused another. We have to use something like Mill's Methods (Mill 1974) or we have to use some sort of complex regression analysis. In addition, we would need a belief-state detector that can discriminate tokens of belief-state types that contain the representation of the proposition that it is raining as well as reason-state tokens of types that contain the proposition that Mr. O sees rain.

Maybe something like that will eventually be done. Maybe we will somehow be able to demonstrate empirically that the belief-states containing the new reasons are the new or sustaining causes of the belief-state that contained the known proposition. And I am certainly not denying that there is some process of inferring that sometimes goes on in our heads. But I am questioning whether at this point we have any good reason for believing that the folk-psychology underlying etiology of belief theories is true. However, and this is crucial, once Mr. O turns off the sprinkler, it is *obvious* why he knows, *ceteris paribus*, that it is raining. Mr. O can now justify the belief by citing reasons which, *ceteris paribus*, make the belief doxastically evidentially objectively certain. Indeed, that Mr. O can cite those reasons in the defense of his belief is the criterion we use in determining whether he has real knowledge. We don't need to know – and we certainly do not now know – whether the cause of that belief has changed. Does the belief state have a new initiating or sustaining cause? Maybe. Maybe not. But the important point here is that we don't need to know the answer to that question in order to know that Mr. O has knowledge that it is raining. My point is that to make such causal claims as found within the EBTs with very little, if any, empirical evidence is extremely hazardous, especially for so-called "naturalized" epistemologists.

I think it is obvious that what has changed is the quality of Mr. O's reasons. Whether the first set of reasons is good enough for knowledge isn't clear, I think; but what's important here is that the judgment that Mr. O acquires knowledge in the second scenario is based upon the new and better reasons he has and could give if asked. In sum, whether just one or more of the EBTs are correct is an unsettled empirical question.

Further, suppose it is much later in the development of cognitive science and we can identify belief types and tokens and one of two things is discovered: (1) Mr. O's second belief token that it is raining *does have* the required pedigreed etiology. In that case, would we take that to be good evidence for the claim that the specified pedigree is necessary, or even sufficient, for knowledge and discard the way we now have of identifying this as a case of knowledge based on the quality of the reasoning possessed by Mr. O? (2) Mr. O's second token of the belief that it is raining *does not have* the specified pedigree. Would we, then, give up the claim that there is some specifiable causal pedigree required for knowledge? Or would we develop another causal hypothesis and test it? How many of those hypotheses would we test?



I don't know the answer to those questions. And I presume no one else does. What I do know is that the causal history of the belief does not currently determine whether we classify the case as one of knowledge or ignorance. We make that judgment on the basis of the quality of the reasons that Mr. O would marshal to justify his belief. I take that as a good *prima facie* reason for thinking that the difference between real knowledge and other less paradigmatic forms of knowledge or ignorance depends fundamentally on the quality of reasons for the belief, not the etiology of the belief.

In [section 7](#) I will return to and clarify the HED problem by focusing on what I think is the most promising of the EBT theories, namely, Sosa's virtue epistemology.<sup>17</sup> According to what I take to be the standard understanding of Sosa's account, a necessary condition of Mr. O's belief that it is raining being real knowledge either before or after he discovers and turns off the sprinkler is that the belief tokens satisfy the aptness condition. Is the belief true because it is adroitly acquired? In other words, is the belief true because it has the required etiology? Only if it has that etiology is it apt and, thus, qualifies as animal knowledge.<sup>18</sup> I will return to this in [section 7](#).

## 5. Quality of Reasoning Theories (QRT) – infinitism and justification

The alternative to the EBT approach, which focuses on the causal history of the belief-state containing the target proposition, is to focus on the quality of the reasoning S deploys for the target proposition. The belief could be caused by the actions of a malevolent genie or by a totally unreliable process, e.g., S's reading a fortune cookie, but if S sincerely marshals good enough reasons for believing the proposition and, crucially, if there is no defeater, then S would have real/certain knowledge. That's the gist of my type of QRT approach.

Let me elaborate a bit. I don't have a settled view about all the necessary and jointly sufficient conditions of having and deploying good reasons. But we can begin by saying that *x* (where *x* could be a conjunction of propositions) is a good reason for *y* iff (1) *x* and *y* are propositions and (2) *x* makes believing *y* more reasonable than denying *y* or withholding *y*. Of course a difficult issue is how to characterize "being more reasonable than." Perhaps that is a basic epistemic property that can be employed to characterize other epistemic properties.<sup>19</sup> Or, perhaps, it supervenes on "natural" properties or, perhaps, there is an Open Question issue in epistemology similar to the open question issue in ethics raised by G. E. Moore (1994).

I'm going to postpone addressing that issue for another day or, perhaps, for another lifetime! Nevertheless, there is one general point to underscore here before we turn to a few specific principles that apply to giving good reasons. Because the justification condition in knowledge refers to doxastic justification, rather than mere propositional justification, S must *deploy* the good reasons in some fashion to justify the belief.

<sup>17</sup>I will focus on Sosa's account but I think my comments can be applied to Zagzebski's as well.

<sup>18</sup>Here is Sosa's succinct statement about the required etiology of animal knowledge:

Beliefs fall under the AAA structure, as do performances generally. We can distinguish between a belief's accuracy, i.e., its truth; its adroitness, i.e., its manifesting epistemic virtue or competence; and its aptness, i.e., its being true *because* competent. (Sosa 2007: 23)

<sup>19</sup>See Chisholm (1966: 21–3) for an account of varying degrees of epistemic justification defined by appealing to a basic, undefined, epistemic relation. I cite this not because I agree with the specifics of the account, but rather to show how it might be possible to develop an account of epistemic properties without presupposing that they supervene on non-epistemic properties.

Here are two, important, general principles that are useful in characterizing what counts as deploying good reasons properly:

**The Principle of Avoiding Circularity (PAC):** The propositional content of a doxastically justified belief, *x*, cannot appear as a conjunct in any premise in the chain of reasons that is deployed by *S* in justifying *x*.

**The Principle of Avoiding Arbitrariness (PAA):** If *S* deploys a reason, say *r*, in justifying her belief that *x*, there is *always* a challenge available for both *x* and *r*, and if the challenge is deployed, then *S* should either (i) provide a reason for overriding the challenge or (ii) provide a further reason for *x* and/or *r* or (iii) reconsider the justificatory status of each. Then, if either *x* or *y* fails to rise to the level of justification required by knowledge, *S* should revise her thinking about how likely it is that the relevant belief is true.<sup>20</sup>

There is always the fallback position from *believing that y* to *believing that y is likely to be true*, and that reduced claim might be sufficient for the purposes at hand, e.g., practical choices. But, and this is crucial, it is possible that *S* could determine that the original target belief, *x*, remains justified if *S* can successfully answer the challenges by appealing to other beliefs she has available. That is, when a belief is challenged, it could remain the case that it is more reasonable for *S* to believe *x* than to withhold *x* or deny *x*.

The conjunction of PAC and PAA entails infinitism, i.e., the view that reasoning that leads to knowledge has no final end and is not circular.

I think PAC is clear enough and will be accepted even though there are many clarifications of PAC that would be required to fully explain what PAC means (see Klein 2007, 2017). On the other hand, PAA is neither clear nor obviously correct. What is a challenge and why think there is always one available? And further, why should *S* respond?

Recall that my task here is not to defend infinitism or the defeasibility theory directly. Rather, it is to show that if they are correct, a solution to the deep puzzle is readily available. Nevertheless a few comments seem appropriate here in order to clarify what I mean by fallible, but non-defective, truth-guaranteeing justification:

- (1) A challenge to believing any proposition (including those that are reasons) will take one or more of these three forms: rebutting evidence for the proposition, or undercutting evidence for the reason(s) for the proposition, or evidence that the inference from *r* to *x* is not valid (if deductive) or sufficiently strong (if inductive).<sup>21</sup>
- (2) Whenever a proposition, *x*, is claimed to be true, there are challenges always available: Is *S* capable of recognizing the objects and/or properties represented in the proposition? If the proposition is justified by deploying a reason, is there a reason for that reason? If so, what is it? Or if *S* is a practicing foundationalist, and hence claims that *x* or *r* is basic and justified but not by a reason,

<sup>20</sup>This is a significant revision of PAA put forward in previous papers. See, for example, Klein (2005).

<sup>21</sup>John Pollock first distinguished *rebutting* defeaters and *undercutting* defeaters (Pollock 1974: 42ff) although he initially referred to them as Type I and Type II, respectively. I believe that he first used those terms in 1987 (Pollock 1987). The third type is not original with me. I first came across it in a talk given by Ram Neta at Rutgers, Spring 2015. In that talk he called this third type of defeater a "SIDE defeater" and defined it this way: *S* acquires a SIDE defeater when *S* acquires reason to believe that *r* (the reason for *p*) does not (adequately) support *p*.

the mode of challenge would be to raise questions regarding S's ability to recognize the objects or properties represented in the so-called basic proposition in virtue of which the proposition is basic and/or whether those features or properties are truth-conducive.<sup>22</sup>

- (3) S should respond to challenges because S is an epistemic agent – a person who seeks real knowledge and S has just realized that there is a yet-to-be-unanswered challenge to the justification of her beliefs. S seeks justifications that are certain – i.e., challenge-proof.

A few more relevant comments about infinitism.<sup>23</sup> Infinitism is incompatible with some forms of foundationalism and some forms of coherentism. But it is compatible with some other forms of each.

Some foundationalists claim that there are some beliefs, so-called “basic beliefs,” that are immune to the types of challenges I mentioned above. In addition, some foundationalists will claim that the basic beliefs provide all the justification that the non-basic propositions have by transferring the justification to them via inference. Infinitists deny both of those claims. All beliefs are subject to challenge and reasoning creates at least some, if not all, doxastic justification. So, that form of foundationalism is incompatible with infinitism.

But foundationalism need not make those claims. A foundationalist could hold that the justificatory status of so-called basic propositions depends upon the context of inquiry and the context could change. And a foundationalist could hold that reasoning *creates* more justification.<sup>24</sup>

Of course infinitism is not compatible with any form of coherentism that endorses circular reasoning or begging the question. I doubt that anyone actually held that coherentist view. But if a coherentist thinks that propositions can be mutually evidentially supportive and each proposition can be used to *create* more justification for the other, then that form of coherentism would be compatible with infinitism. For one answer to a challenge about S's acceptance of a proposition, x, can be that a reason S has for believing x is that x coheres with his/her other beliefs. Of course, that good reason does not stop the progress of reasoning. The next questions would be: What is coherence? Are you good at recognizing it? And is coherence a truth-conducive property?

I said above that deploying a reason can create doxastic justification.<sup>25</sup> Let me briefly explain what I mean. Infinitists hold, or at least I do, that justifying a belief is something that S does. “Justify” is like most other “fy” verbs whose etymology includes the Latin “facere” (to make), e.g., certify, magnify, glorify, classify, unify, mystify, yuppify, indemnify.<sup>26</sup> Doxastic justification is not transferred from one belief to another through the process of inferring/reasoning.<sup>27</sup> S creates the justification of y by deploying good reasons for y, but the reason, x, might not yet have been doxastically justified.

Justification for the target belief is not lost as the chain of reasons lengthens via non-deductive reasons (as it seems that the foundationalists are mistakenly committed to). The first reason given, r1, does most of the heavy lifting for justifying the target

<sup>22</sup>See Chapter 15 of Empiricus (1976) for a discussion of the ways in which a Pyrrhonian would challenge the various accounts of justification employed by dogmatists.

<sup>23</sup>There are, of course, many objections to infinitism that I have tried to answer elsewhere (see Klein 2007, 2014, 2017).

<sup>24</sup>See Klein (2014).

<sup>25</sup>For a good discussion and defense of this view see Turri (2014).

<sup>26</sup>The word ‘defy’ has a different Latin etymology.

<sup>27</sup>We do say that one belief justifies another – but I take that to be roughly equivalent to saying that one belief is a good reason for another.

proposition, *p*. The second reason in the chain, *r*<sub>2</sub>, does the heavy lifting for *r*<sub>1</sub>, but less heavy lifting for *p* because *r*<sub>1</sub> had already done the lion's share. Thus, as the chain of reasons increases in length, the contribution to the degree of justification made by each succeeding reason diminishes, but the longer the chain, the better justified the target belief. At some point *S* can stop providing further reasons for *p* because, given good epistemic management practices, *S* should move onto some other target belief.<sup>28</sup> It's that fact – the fact that it is legitimate to stop at some point – that could have misled foundationalists into thinking that there is an inherently context-free, privileged set of “basic” beliefs. In other words, having a good basis for believing a proposition does not require locating a basic proposition.

## 6. The defeasibility theory and real knowledge

Let's move now to the defeasibility theory.<sup>29</sup> In the brief discussion of infinitism, I implicitly employed a defeasibility model of justification in discussing the challenges to a belief. Now let me make it explicit.

*S* can have a good set of reasons (as far as *S* has gone in the chain of reasons) but that chain of reasons can be subject to both internal and external challenges. The *internal* challenges, call them “overrides,” are propositions in *S*'s belief set that can be used to challenge the belief's propositional content by presenting either (1) counter evidence or (2) undercutting evidence or (3) evidence showing that strength of the connection between the reason deployed by *S* (for the target belief) and the target belief is not sufficiently strong. Those three challenges might not be successful challenges because *S* could have sufficiently good responses, i.e., overriding overrides. And that could go on and on. So a fully developed defeasibility theory would have to appeal to a notion of *ultimately non-overridden belief*. *External* challenges, call them “defeaters,” are *true* propositions that are not in *S*'s belief set that challenge belief in the same three ways as do internal overrides (see fn 21). *S* could have adequate responses to the defeaters. Call them “defeater eaters.” If *S* has a defeater eater in her available belief set, then *S*'s knowledge is maintained. If *S* doesn't have a defeater eater, *S* fails to have certain knowledge. Gettier cases are handled by the existence of non-overridden defeaters. In each case, there are such defeaters, e.g., “Jones won't get the job” or “Jones does not own a Ford” that defeat *S*'s reasons for believing the target proposition for which *S* does not have a ready answer available. That is, *S* does not have an override available, and hence, doesn't really know the target proposition.

Here's how defeasible infinitism defines real knowledge: *The belief that x is real knowledge for S iff S's justification of x (which does not violate either PAC or PAA) is neither overridden nor defeated, or if it is overridden or defeated, S has a way to ultimately override the override or a way to ultimately override the defeater without violating PAC or PAA.* Stated more simply: *S really knows that x iff every defeater or override of S's justification of x is ultimately overridden.*

There are cases in which it is unclear whether there is knowledge. They are unclear because it is unclear whether a necessary condition or a sufficient condition of knowledge is fulfilled. Perhaps, it isn't clear that *S* believes the proposition or whether the belief is doxastically justified or even whether it is true. But most relevantly, it might

<sup>28</sup>See Atkinson and Peijnenburg (2017) for a probabilistic model that has this “fading” feature. They were the first to recognize this feature.

<sup>29</sup>There are many challenges to defeasible infinitism that would have to be answered if this paper were a direct defense of that theory. But it isn't. I have dealt with what I think are the most serious objections elsewhere. See Klein (1980, 2017).

not be clear whether there is a defeater for which S does not have a justification-restoring overrider. In particular, in the first scenario of the Mr. O case, it is unclear whether *the sprinkler was on and that can make it look like it is raining when it isn't raining* is an undercutting defeater and, if so, whether S has an available satisfactory rejoinder, namely, *some of the drops were drops of rain*.

That not every candidate proposition can be clearly placed in the knowledge basket or clearly placed in the ignorance basket is to be expected. For the boundaries of knowledge are vague. That being the case, a test of an adequate theory of knowledge would be whether in such borderline cases the account contains a necessary or sufficient condition which is neither clearly fulfilled nor clearly unfulfilled. This account of real knowledge passes that test.

Now to one of the main points of the paper, namely that one of the virtues of defeasible infinitism, aside from not being subject to the HED problem and being able to solve the Gettier Problem, is that it can solve the deep puzzle in epistemology:

- (1) This characterization of real knowledge does not lead to academic skepticism (i.e., the view that we *cannot* have real knowledge) because the necessary and sufficient conditions for real knowledge can be fulfilled and, importantly, the conditions for really knowing that you really know can also be fulfilled. For S really knows that S really knows that x *iff* S's justification for S *really* knows that x fulfills the no-defeat condition. And there is no reason to think it is always defeated.
- (2) Defeasible infinitism shows why psychological certainty (as characterized earlier) is not warranted. For there is always a challenge available which S has not yet considered.
- (3) It might be thought that I have made the conditions of certainty too easy to fulfill. But there cannot be counter examples to this account of real knowledge which show that it is too weak. For if there is no defeater of S's justification of x, then S does really know that x because S *does not really know that x* ( $\sim Ksx$ ) is a defeater of S's justification of x.<sup>30</sup> To see that suppose that r is S's reason for believing that x. Now consider the set {r,  $\sim Ksx$ } and ask whether it could remain the case that it is more reasonable for S to believe x than to deny or to withhold x. S should reason as follows: "If I don't really know that x, then at least one of the conditions of real knowledge is not satisfied. I do believe that x, so either D1: x is false, or D2: r does not make believing x more reasonable than denying x or withholding x, or D3: there is some defeater that I am not aware of and which is such that I cannot override it. D1 is a rebutting defeater; D2 is a SIDE defeater; D3 is an undercutting defeater. (See fn 21 for a little more on each type of defeater.) I think the argument just given can be put more intuitively and roughly like this: If an epistemic agent learned that her belief that x was not real knowledge that x, her belief that x would no longer be justified for her because she strives for real knowledge and now she has learned that her belief does not qualify as real knowledge."<sup>31</sup>
- 4) Defeasible infinitism can allow that an etiology of belief account of justification is empirically correct if the empirical facts turn out to be as the account predicts. For suppose it is empirically discovered that in order for S to really know that x, the process that brought about the belief-state containing x must have a certain

<sup>30</sup>A similar argument can be made for it being the case that S is not justified in believing that x is a defeater. I discuss this more fully in Klein (2017).

<sup>31</sup>I say "roughly" in order not to commit the conditional fallacy as described by Robert Shope (1983).

pedigreed etiology, then if a particular belief-state lacks that etiology, the proposition *S's belief lacks the etiology necessary for real knowledge* would be a defeater of *S's* justification. Put another way, it would not be evidence against the defeasibility theory were the empirical evidence to show that one of the EBTs is correct. Rather, that discovery would simply delineate a subset of potential defeaters in the full range of defeaters.

- (5) Finally, and most importantly for our purposes, defeasible infinitism provides an answer to the deep puzzle in epistemology. For it explains how a belief can be objectively certain even though the justification is fallible.

## 7. Aptness and defeasible infinitism

The first main point of the paper was to show that defeasible infinitism solves the deep puzzle in epistemology. The second main point was that Etiology of Belief theories are not, at least at this point, able to solve the deep puzzle because of the HED problem. I have already given general arguments for these points. I will now turn to one of the EBTs – the one I think comes as close to solving the deep puzzle as is possible for a theory which holds that it is the cause of the belief-state that distinguishes real knowledge from ignorance, namely the virtue theory developed by Ernest Sosa. My claim is that whether it can avoid the HED problem crucially depends upon what kind of cause is being depicted in theory.

Let me begin by pointing out that there are many important similarities between Sosa's virtue epistemology and defeasible infinitism even though those views are expressed using very different vocabularies to describe what makes a proposition really known.

Consider the deep puzzle in epistemology. I think the answer to the puzzle is that if *S's* belief is supported by non-defective but defeasible reasoning, the target belief has to be true in this world because the negation of the propositional content of the belief is a defeater. Sosa has accepted a defeasibility condition in knowledge (Sosa 1991).<sup>32</sup> And, thus, his view potentially contains a similar response to the deep puzzle.

But, importantly, Sosa has a second way of addressing the deep puzzle, namely appealing to the requirement that a belief rising to the level of real knowledge be true as a result of its being adroitly formed. It is clear that the causal processes of creating or sustaining a belief are fallible because even if adroitly employed and even if the truth is obtained, it might not be the case that the truth is obtained *because* it was adroitly sought. Such a belief would not be apt. For apt beliefs are true in virtue of their being adroitly obtained. The important point, here, is that if a belief is apt, it is true. Thus, just as the truth condition is redundant in the defeasibility theory, it is also redundant in the apt belief theory.

<sup>32</sup>In the "Introduction" to *Knowledge in Perspective*, while describing the first chapter, he writes that it contains the following three things:

- (a) A distinction between "subjective," *internal* justification, on the one hand, and "objective," *external* justification on the other – both required for knowledge. [Note the similarity with my discussion of subjective and objective doxastic justification.]
- (b) A discussion of evidence one does not possess, and of the social aspect of knowledge, and how these go beyond the subjective internal rationality of belief. [Note the similarity with my discussion of what makes a proposition a temporary stopping point in the chain of reasons.]
- (c) A *defeasibility framework of justification, according to which positive evidence for a belief can be defeated or overridden by additional facts*. [Note the similarity with my account of defeaters and overrides.] (Sosa 1991: 10–11) (Emphasis mine)

The material in square brackets is mine and not Sosa's.

Another similarity emerges with Sosa's requirement that the most highly prized form of belief is not just apt belief (animal knowledge); it is *defensibly* apt belief. He writes:

Animal knowledge is essentially apt belief, as distinguished from the more demanding reflective knowledge. ... One might proceed in three stages:

- (a) affirm knowledge entails belief:
- (b) understand "animal" knowledge as requiring apt belief *without* requiring *defensibly* apt belief, i.e., apt belief that the subject believes to be apt, and whose aptness the subject can therefore defend against relevant skeptical doubts; and
- (c) understand "reflective" knowledge as requiring not only apt belief but *also* defensibly apt belief. (Sosa 2007: 24)

The stages or levels view of knowledge has been a consistent part of his account of the most highly prized form of belief.<sup>33</sup>

Sosa is committed to a levels analysis of knowledge because a belief can be apt but not yet fully defensibly apt. Epistemic agents seek beliefs that can be defended, and to fully defend a belief, one would need, in part, to defend the methods one used to arrive at the belief as being truth-conducive. In other words, the type of potential defeater that challenges the truth-conducive power of the method needs to be addressed. But once doing that, the epistemic agent might be challenged (externally or internally) to defend the premises used in the argument for the claim that the methods are truth-conducive. And, then, that defense could be challenged. That would seem to imply that there is always a new challenge available. Here is what Sosa says on this very issue:

as with first-order foundations, mere true belief is surely insufficient. Some property F beyond its being a true belief is required at some upper level if it is to properly stop the regress. It must at least be a competent belief, competently formed. True, it cannot be required for flawless competence that the subject ascend to the next highest level – to level  $n+1$  – for perspectival approval and defense at level  $n$ . But this does not exempt level  $n$  from the requirement that it have been properly formed in every other relevant respect. ... It seems to me that on this issue Klein and I are in agreement. We both endorse a kind of infinitism, the idea that there is a potential infinite hierarchy of levels. And we both escape the vicious regress by allowing a level of epistemic justification that stops short of infinity and a corresponding level of human knowledge. (Sosa 2014: 209)

Thus, I think his and my view about the levels of knowledge are quite similar. *I* build the levels into defeasible infinitism by denying that there are ultimate basic propositions and claiming that the range of defeaters includes those that challenge the reasoning employed to justify the target proposition. *He* builds it in by requiring that the really known proposition be fully defensible.

In sum, even though we use different vocabularies to describe the structure of the most highly prized type of knowledge, the structure that is portrayed is virtually identical.

So, let us suppose that Sosa's view correctly claims that in every instance of real knowledge there is a belief that is aptly formed and capable of being fully defended. In that case, if a belief, say  $x$ , were not defensibly aptly formed, the proposition *the belief*

<sup>33</sup> As Sosa notes in the section "Sources and Acknowledgments" in *Knowledge in Perspective* (Sosa 1991: x) his Chapter 16 combines two papers written in 1988 which present and defend his levels view of knowledge.

that  $x$  is not real knowledge that  $x$  would be a defeater. Thus, defeasible infinitism can accept Sosa's view.

Given all those important similarities, the question becomes: Is there a fundamental difference between the two views? I think the answer to that question depends upon what role the skillful performance plays in bringing it about that  $S$  has defeasibly apt belief.

There is a significant difference between our views if Sosa's view imposes the requirement that a belief rising to the level of either animal or reflective knowledge must be "competently formed" where that performance is the *efficient* cause of the belief. If that is what is meant, then I think his view is subject to the HED problem because it requires that there be a particular type of efficient cause of the belief-state in order for it to be real knowledge. But if the process of deploying challenge-proof reasons *constitutes* a belief being defeasibly apt belief, then the two views are not incompatible. In this sense of "cause" – analogous to Aristotle's account of material causation (Aristotle 1984: *Metaphysics*, 1013ff) – we could say that the material cause of defeasibly apt belief *just is* the deployment of reasoning that is not defeated.<sup>34</sup>

This is such an important point about the potential similarity of our views, it should be amplified a bit. I think that a belief which rises to the level of real knowledge can be efficiently caused in any way that beliefs can be efficiently caused (e.g., from being the result of skillfully seeking reasons and seeing what follows from them or from mere wishful thinking) and yet rise to the level real knowledge whenever  $S$  skillfully deploys a set of defensible reasons which are such that the justification of the belief is not defeated. But that performance need not be an initiating efficient cause or the sustaining cause of the belief. The skillful performance I have in mind, i.e., the defeasibly skillful deployment of reasons, could be deemed to be a cause of the belief being an instance of real knowledge just in case 'cause' is taken to refer to what "makes" a belief real knowledge. It's what real knowledge is made of.

Sosa delineates such a notion of causation in an early paper, first read in 1977 and later published in 2001. He calls it "consequentialist cause" and gives this example: "If an apple is red then it is coloured as a result of being red; it is coloured *because* it is red" (Sosa 2001: 240). Perhaps he would grant that the tokening of a defeasibly skillful deployment of reasons is to real knowledge as red is to being colored. The relevant question here is: Does the defeasibly skillful performance create or sustain the existence of the kind of belief that is real knowledge or is the defeasibly skillful performance what constitutes a belief that is an instance of real knowledge? If it is the former, then I think that Sosa's view is susceptible to the HED problem. If it is the latter, it is not susceptible to the HED problem. That would be a conclusion devoutly to be wished.<sup>35</sup>

<sup>34</sup>As mentioned in fn 4, there is a perfectly good sense of "know" in which  $S$  can be said to know  $x$  even if  $S$  does not occurrently believe that  $x$ , but that sense derives its meaning from the occurrent sense. Sosa would also have to grant that there is a sense in which  $S$  knows such facts even though  $S$  has not yet formed the belief explicitly. Again, dispositions, or something very much like them, would surely play some role in both of our accounts.

<sup>35</sup>Versions of this paper were given at the University of Colorado, 4 April 2018, the Episteme Conference in Honor of Ernest Sosa, 25 July 2018, and at the University of Florida, 15 February 2019. I want to single out Cherie Braden, Michael Huemer, Robert Pasnau, and Matthias Steup for their comments and suggestions following the talk at the University of Colorado; Kurt Sylvan who was my commentator at the Episteme Conference; and John Biro, Rodrigo Borges, and Gene Witmer for their comments and suggestions after the talk at the University of Florida. I hope this version avoids some of the errors in previous ones; and, just to underscore my view that the Preface Paradox is a genuine paradox, let me say that the errors which do remain are my own. This paper repeats some of what I argue in Klein (2017). Both that paper and this one were made significantly better by Anne Ashbaugh's comments and suggestions.



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