

Epistemic Justification and Epistemic Luck

[ABSTRACT] Among epistemologists, it is not uncommon to relate various forms of epistemic luck to the vexed debate between internalists and externalists. But there are many internalism/externalism debates in epistemology, and it is not always clear how these debates relate to each other. In the present paper I investigate the relation between epistemic luck and prominent internalist and externalist accounts of epistemic *justification*.

I argue that the dichotomy between internalist and externalist concepts of justification can be characterized in terms of epistemic luck. Whereas externalist theories of justification are incompatible with veritic luck but not with reflective luck, the converse is true for internalist theories of justification. These results are found to explain and cohere with some recent findings from elsewhere in epistemology, and support a surprising picture of justification, on which internalism and externalism are *complementary* rather than contradictory positions.

It is widely held in epistemology that knowledge excludes beliefs true merely by luck.¹ Indeed, one may construe the upshot of Gettier's classical paper to be precisely that justified true belief is not sufficient to rule out epistemically problematic luck (Gettier 1963).² Primarily for this reason, the analysis of luck received a fair bit of attention in recent epistemological literature (e.g. Coffman 2007; Goldberg 2015; Lackey 2008; Pritchard 2005, 2014; Zagzebski 1994).

In this paper, I argue for two claims: (i) internalist and externalist theories of justification can be distinguished in terms of epistemic luck, (ii) these accounts should be seen as *complementary* rather than contradictory theories of justification. To this end, I provide in section 1 definitions of the two forms of epistemic luck relevant for this paper: veritic luck and reflective luck. In section 2, I consider two prominent externalist theories of justification (reliabilism and competence based justification) and argue that they are incompatible with veritic luck but not with reflective luck. In section 3, I consider two prominent internalist theories of justification (accessibilism and mentalism), and argue that they are incompatible with reflective luck but not with veritic luck.³ In section 4, I integrate these results with recent claims made by William Alston about epistemic justification and Ernest Sosa about the structure of knowledge, and argue that internalism and externalism are complimentary rather than contradictory theories of justification.

¹ This view can be traced back to Plato (1973). For some recent statements of this view, see (Engel 1992; Lackey 2006; Pritchard 2004).

² For some examples of this kind of interpretation, see (Church 2010; Dancy 1985; Pritchard 2005; Zagzebski 1999).

³ These claims are related, but not equivalent to Pritchard's claim that "externalists and internalists in epistemology often speak past one another precisely because they are concerned with ... different kinds of epistemic luck." (Pritchard, 2005, p. 9). See Section 4 for discussion.

1. Epistemic Luck

This paper is based on Duncan Pritchard's modal account of luck (2005, 2014).⁴ Pritchard's main claim is that "what makes an event lucky is that while it obtains in the actual world, there are – keeping the initial conditions for that event fixed – close possible worlds in which this event does not obtain" (2014:599). Since it is clear from the context that Pritchard intends the presence of nearby possible worlds where the event fails to obtain to be both necessary and sufficient for luck, we formulate the following definition:

MAL: An event is lucky if and only if it fails to occur in a nearby possible world, or set of nearby possible worlds, where the relevant initial conditions for the event are the same as in the actual world.

The fundamental motivation behind MAL is the claim that lucky events *could have easily failed to obtain*. Paradigm cases of luck confirm this: both winning the lottery and finding a treasure are events that could have easily failed to obtain. Events that could not have easily failed to obtain, such as the sun's rising this morning, are appropriately classified as events that are not lucky.

The Modal Account of Luck adopts a possible world framework.⁵ In this framework, possible worlds are ordered in terms of how easily they could have obtained from the perspective of our actual world. So the nearer a possible world is to our actual world, the more easily that possibility could have obtained from the perspective of the actual world.⁶

A reference to 'the relevant initial conditions for the event' needs to be included in any analysis of luck because whether an event is lucky or not depends on its initial conditions. For example, I am lucky to win the lottery if I bought a random ticket for a fair lottery, but not if I managed to rig the lottery in such a way that I could hardly have lost.

⁴ Versions of MAL have been endorsed by (Church 2010; Coffman 2007; Levy 2009, 2011). For some objections to the Modal Account of Luck, see (Goldberg 2015; Hales 2016; Lackey 2008).

⁵ *Which* possible world framework? Pritchard explicitly assumes the framework of David Lewis (Lewis 1973, 1986; Pritchard 2014:4). The specific advantages and disadvantages of this framework compared to others do not matter for the points made in this paper.

⁶ Pritchard orders the possible worlds in terms of their similarity to the actual world. In order to account for our intuitions, he thus needs the further assumption that the more similar a world is to the actual world, the more easily it could have obtained. I think it most straightforward to provide an ordering directly in terms of the ease with which these possible world could have obtained, but nothing essential hangs on this difference.

Epistemic luck is luck that is in some way relevant for the acquirement of knowledge. Some forms of epistemic luck are compatible with knowledge. For example, by visiting Wikipedia's featured article page, one may luckily acquire a piece of evidence about The Sugarbabes. Even if it is a matter of luck that one stumbled upon the evidence, it seems plausible to suppose that one may acquire knowledge on the basis of it. In line with Pritchard, we call the forms of luck that are compatible with knowledge 'benign' forms of epistemic luck.⁷

There are also 'malicious' forms of epistemic luck; forms of luck that prevent one from knowing. The literature identifies two potential forms of malicious epistemic luck: veritic luck and reflective luck. Both forms of luck apply to *beliefs* only.

Veritic luck is luck that one's belief is true. Veritic luck was first identified by Mylan Engel, who writes that a person is veritically lucky if she is lucky "in virtue of the fact that, given her evidential situation, it is simply a matter of luck that her belief turns out to be true" (Engel 1992:67). An example of someone who is veritically lucky would be someone who forms a belief exclusively on the basis of a lucky guess, since given that she has no more evidence than provided by her guess, her belief could have easily been false.

I will modify Engel's characterization of veritic luck in two respects. The first concerns the relevant initial conditions for a belief to be veritically lucky. In Engel's specification, they include only the agent's evidential situation. I will instead specify them in terms of the agent's method of belief-formation.⁸ Note that in this latter case the evidential situation of the agent is still relevant insofar as it features in the agent's belief-forming method.

My proposal should be preferred because it allows us to say that the belief of an agent who is in possession of excellent evidence, but who does not make *use* of this evidence in forming her belief, is still veritically lucky. For example, one may be in possession of excellent evidence that one's spouse is having an affair, but solely on the basis of wishful thinking form the belief that this is not so. Even if such beliefs turn out to be true, they are epistemically faulty in exactly the same way as plain guesses are faulty: such beliefs could have easily been false given the way they were formed.

The second modification that I want to propose is based on the fact that there are (at least) two ways in which the relevant event of an agent forming a true belief can fail to occur. In the first case, the agent

⁷ For an overview of various benign forms of epistemic luck, see (Pritchard 2005:5.2)

⁸ Referring to the notion of a belief-forming method makes our account vulnerable to a generality problem (Conee and Feldman 1998; Feldman 1985; Goldman 1979). What is the proper way to individuate such methods? While the problem should be taken seriously, we will see below that many accounts of justification already refer to a method of belief-formation. The problem is thus not specific to the account of veritic luck developed here. I will not attempt to formulate a solution to the problem, but instead assume that the problem can be solved in some way or another. Below I will decide on a case-by-case basis what the relevant belief-forming method is.

forms the same belief, but it is false. In the second case, the agent forms a *different* belief. Engel seems to think only the first possibility is relevant for veritic luck. I want to propose to include the second case in our considerations of veritic luck as well. The main reason for this is that it allows us to say that simple guesses of necessary truths are veritically lucky. Suppose I guess that the continuum hypothesis is true. Suppose it is true. If it is true, it is necessarily true, so given the way I formed my belief (or given my evidential situation, for that matter), *this belief* could not have easily been false. But we want to account for the way in which beliefs formed on the basis of guessing are lucky. We can accommodate lucky guesses of necessary truth by extending the account of veritic luck to include the possibility of the formation of *different* false beliefs by the same method. What is wrong with beliefs formed on the basis of guessing is not that *they* could have easily been false, but that they are produced in a way that could have easily produced a false belief.⁹ We thus arrive at the following definition of veritic luck:

VL: S's belief that *p* is veritically lucky if and only if *p* is true in the actual world, but the belief-forming method that generated S's belief that *p* produces a false belief in a nearby possible world.

Reflective luck, on the other hand, applies to beliefs that are true by luck, *judged from the perspective of the agent* (Pritchard 2004). We modify our definition accordingly:

RL: S's belief that *p* is reflectively lucky if and only if, given the information reflectively accessible to S, *p* is true in the actual world, but the belief-forming method that generated S's belief that *p* produces a false belief in a nearby possible world.¹⁰

Veritic and reflective luck are logically independent. First, it is possible for a belief to be reflectively lucky but not veritically lucky. An example of such a belief would be Norman's beliefs about the whereabouts of the president of the U.S. in Bonjour's famous clairvoyance case (Bonjour 1980). Norman, according to the story, has reliable clairvoyance powers, which we may suppose – and we will come back to this issue below – could not easily have produced false beliefs. Norman, however, does not know how his beliefs are produced. To him, it just seems these beliefs 'pop' into his mind, with no evidence to back them up. Since Norman has no reflectively accessible evidence that speaks in favour of the reliability of his belief-forming

⁹ Goldberg (2015) makes a similar point when he discusses MAL. Pritchard (2009) also seems to be aware of this problem.

¹⁰ This assumes that one's perspective consists of just those facts that are reflectively accessible. Pritchard seems to share this assumption (Pritchard 2005:5).

method, the method, from his perspective, could have easily produced a false belief. Norman's belief is thus reflectively but not veritically lucky.

Second, it is possible for a belief to be veritically lucky but not reflectively lucky. Such is the case in Cohen and Lehrer's famous New Evil Demon case (Lehrer and Cohen 1983). In this case, victims of the demon have reflective access to exactly the same information as we in our world have. If our beliefs are not reflectively lucky, this will hold true for the beliefs of the victims of the demon as well. However, even if this is the case, since they are massively deceived by the demon, the way the beliefs of the demon's victims are *actually* produced in their world could have very easily produced a false belief. So if their beliefs are true at all, they will be veritically lucky.

The New Evil Demon case also serves to illustrate that what matters for reflective luck is not whether the method one actually used in forming one's belief could have easily produced a false one, but rather whether the method that one *believes* one used could have done so. We are to take into account only the perspective of the agent, so we cannot draw on facts about belief-forming methods that are not reflectively accessible, as is the case in the New Evil Demon case. For a similar reason, modal distance is not determined relative to the actual world in the case of reflective luck, but relative to what the agent *believes* to be the actual world, and what she believes to be easily possible.

2. Externalism and Luck

In this section I argue that some of the most prominent externalist theories of justification are compatible with reflective luck but not with veritic luck. This claim is to be understood as follows: these theories of justification entail that justified belief is not veritically lucky, but they allow for the possibility of justified belief that is reflectively lucky. We will consider the incompatibility with veritic luck first, and then the compatibility with reflective luck.

The first externalist theory of justification that I will consider is Alvin Goldman's process reliabilist account of justification. It can be characterized as follows:

PR: S's belief in *p* is justified IFF it is caused (or causally sustained) by a reliable cognitive process, or a history of reliable processes. (Goldman 1994:309)

What does it mean for a cognitive process to be reliable? According to Goldman, the cognitive process that caused the belief must have a 'tendency' to produce true beliefs (Goldman 1979:96). This tendency can be understood as a high frequency (either actual or hypothetical) in the actual world, or in nearby possible

worlds as well. Consequently, reliability can be understood in a modal or in a non-modal way. Both Goldman and Williamson have defended modal interpretations:

[A] cognitive mechanism or process is reliable if it not only produces true beliefs in actual situations, but would produce true beliefs, or at least inhibit false beliefs, in relevant counterfactual situations. (Goldman 1976:771).

Reliability and unreliability, stability and instability, safety and danger, robustness and fragility are modal states. They concern what could easily have happened. They depend on what happens under small variations in the initial conditions. (Williamson 2000:123)

The generally received view is that process reliabilism fails to exclude all cases of veritic luck.¹¹ I believe this view to be mistaken, at least regarding modal interpretations of reliability. If a belief is modally reliable, it is produced in a way that produces true belief in the 'relevant counterfactual situations'. On the assumption that easy possibilities are included in this set, there will be no nearby possible worlds in which one believes falsely on the basis of the same process, for reliability is now simply defined in terms of whether the belief-forming method produces true beliefs in these worlds.¹²

The non-modal interpretation of reliability should be rejected for independent reasons. Consider the following example:

Reasoning according to the Gambler's Fallacy, Rene believes that roulette numbers which have not come up for long strings are more likely to come up next. Suppose all beliefs Rene actually forms and will form on the basis of this method turn out to be true.

Rene's method of belief-formation is reliable according to the non-modal account of reliability. But his beliefs do not seem to be justified. The modal interpretation can explain why we would not consider Rene's beliefs justified, for it is clear that this method of belief-formation *could* easily produce false beliefs, even if *actually* it does not. The most plausible version of process reliabilism thus excludes veritic luck.

It is instructive to briefly consider one reason for the received view that reliabilism fails to eliminate veritic luck. It involves a putative counterexample:

¹¹ See, for example, (Harper 1996). Thanks to an anonymous referee for pointing this out to me.

¹² This seems to render reliability a form of *safety*, as is indicated by Williamson's quotation above. For more on the safety requirement on knowledge, see (Pritchard 2005:6; Sosa 1999; Williamson 2000:5). Pritchard argues that safety eliminates veritic luck.

Suppose that Jones really does own the Pinto and that Smith forms a reliably formed belief, by normal methods, that Jones owns a Ford, but, unbeknownst to Smith, Jones' Pinto is blown to dust by a terrorist's bomb and simultaneously Jones wins a Falcon in the State lottery. (Harper 1996:277)

Harper presents this case as a case of reliably produced, yet veritically lucky belief. Given that the belief is deemed veritically lucky, the terrorist attack must be an easy possibility (for otherwise Jones could not have easily formed a false belief instead). But if this is true, then Jones' belief is not modally reliable. For this would require Jones' method *not* to produce false belief in relevant counterfactual situations, and the easy possibility of the terrorist attack clearly seems to be relevant. So Harper's case does not present a counterexample to the claim that modal reliability excludes veritic luck.¹³

The second form of externalism that we will consider can be called a competence based view of justification. It features prominently in certain virtue-theoretic accounts of knowledge.¹⁴ The view is characterized by Ernest Sosa as follows:

we can ... evaluate it [a belief] as 'epistemically justified', in one or another sense: 'competently adroit' perhaps (or reliably based, or counterfactually safe, etc.), or perhaps 'rationally justified' (coherently fitting, and held in part on that basis). (Sosa 2009:114)

While the second sense of justification that Sosa identifies is stronger than the first, adroitness is required for either sense of epistemic justification. A belief is adroit, on Sosa's account, if and only if it manifests an epistemic *competence*, in particular a competence to attain true belief (e.g. Sosa 2015:1). Thus, a belief is justified for Sosa only if it manifests a competence to believe truly.

We will not discuss Sosa's complete account of competence. What is relevant is the following:

"What then is required for possession of a competence? Required for archery competence, ... [t]here must be a close enough sphere of possible worlds where one takes shots, varied enough across the relevant range, and these shots must easily enough succeed, extensively enough across the relevant range. (Sosa 2015:97)

¹³ Harper anticipates a response like this but dismisses it on the grounds that it would lead to an infallibilist account of justification (Harper 1996:277). This is inaccurate. Modal reliabilism does not rule out that reliable methods can *possibly* produce false beliefs. It does rule out that they can *easily* produce false beliefs.

¹⁴ Virtue epistemologists are usually more interested in the concept of *knowledge* than in the concept of justification. Nevertheless, as we will see below, we can extract a theory of justification from their work.

Thus, for Sosa, one possesses a competence for X only if one could not have easily failed to X if one tried. Competences are relative to a set of appropriate conditions, however. An archer is competent if her shot does not too easily fail to hit the target. But archery competence does not require that one's shot does not easily fail to hit the target *when shooting in the midst of a storm*. As a result of this, competent action does not easily produce failure only under some set of appropriate circumstances.

Justification on Sosa's conception requires *manifesting* a competence to attain true belief. When is a competence manifested?

Consider the archer who shoots with the unexpected gust about to cross the field and the guardian angel poised to intervene, unbeknownst to the archer. This archer does not earn proper credit for his success, which does not really manifest competence. And the reason for this, I suggest, is that the archer does not shoot when in appropriate shape, in an appropriate situation. (Sosa 2015:103)

According to Sosa, then, a competence is manifested only if exercised in the appropriate situation. Justification, we saw, requires the manifestation of a competence to believe truly. According to the above, this requires in turn that one could not have easily believed falsely in the appropriate situation, and that further, the situation one is actually in is indeed appropriate. If one is justified in this sense, one believes thus in a way that could not have easily produced false belief. Thus, if one's belief is justified in Sosa's sense, this belief cannot be veritically lucky.¹⁵

Both externalist accounts of justification that we considered are thus incompatible with veritic luck. They are both *compatible* with reflective luck, however. It is possible that one's belief is reliably produced, and manifest a competence to believe truly, yet one does not possess any reflectively accessible evidence that this is the case. Robbert Brandom's famous chicken-sexers – who are reliably able to determine the sex of chicks, but have no idea how they do it – may be examples here (cf. Brandom 1998; Lewis 1996; Pritchard 2005). Their beliefs may well satisfy the externalist criteria for justification discussed above. Yet, from their perspective, it seems as if their beliefs could have easily been false. So the externalist conceptions of justification that we considered both eliminate veritic luck but not reflective luck.

3. Internalism and Luck

¹⁵ Sosa's account evades Harper's counterexample discussed above for a similar reason that reliabilism evades it. For if the case is a case of veritic luck, and terrorist attacks are an easy possibility, then the circumstances are not appropriate for exercising one's memory competence, and the belief thus does not *manifest* competence.

We have seen two prominent externalist theories of justification that are incompatible with veritic luck, but not with reflective luck. We will now argue that the contrary holds for prominent internalist theories of justification: these conceptions of justification entail the absence of reflective luck, but not of veritic luck. The first form of internalism that we will take a look at is called *accessibilism*. Its central thesis is:

AI: S is justified in believing *p* only if *p*'s justifiers are reflectively accessible to S.

Accessibilism is usually motivated by appeal to a *deontological* account of justification, in combination with an ought-implies-can principle.¹⁶ According to the deontological account of justification, a belief is justified only if the agent does not violate the relevant epistemic norms in so believing.¹⁷

Whether accessibilism, so construed, is incompatible with reflective luck depends on what the epistemic norms are. A fairly common suggestion is that they include something like the following:

Norm: Believe in such a way that you maximize true belief and minimize false belief.¹⁸

On the assumption that this norm is among the epistemic norms, the accessibilist thus maintains that a belief is justified only if, given the information reflectively accessible to the agent, her belief is formed in a way that maximizes her true beliefs and minimizes her false ones.

It is clear, however, that reflectively lucky beliefs violate this condition. For a belief that is reflectively lucky is a belief that, from the perspective of the agent, is formed in a way that could have easily produced a false belief. It would seem that from the perspective of the agent, employing such 'risky' belief-forming methods will in the long run lead to many false beliefs, and will not satisfy the epistemic norm we identified. Therefore, accessibilist justification is incompatible with reflective luck.

A second prominent internalist theory of justification is called *mentalism*. Most famously defended by Earl Conee and Richard Feldman, its main thesis is as follows:

MI: [T]he justificatory status of a person's doxastic attitudes strongly supervenes on the person's occurrent and dispositional mental states, events, and conditions. (Conee and Feldman 2001:2)

¹⁶ This general form of argument is discussed at length in Goldman (1999).

¹⁷ While not especially prevalent in contemporary epistemological literature, versions of this form of internalism have been endorsed by Bonjour (1980), Chisholm (1977) and Ginet (1975), among others.

¹⁸ The formulation is based on (Alston 1989:201). However, versions of it can be found in many places, including (Bonjour 1985; Rysiew 2003; Vahid 2006).

Mentalists thus think that justification supervenes on one's mental states, rather than on the information one has reflective access to. While it is not immediately clear that the two theories have different extensions, it seems MI and AI are at least logically distinct (cf. Pappas 2013).

Further, defenders of MI usually appeal to an *evidentialist* concept of justification rather than a deontological concept:

EJ: Doxastic attitude *D* toward proposition *p* is epistemically justified for *S* at *t* if and only if having *D* toward *p* fits the evidence *S* has at *t*. (Feldman and Conee 1985:15)

Taken together, MI and EJ do not yet show that justification cannot be reflectively lucky. This is because they leave open the way the relevant beliefs are *formed*. Beliefs that fit one's evidence very well may be the result of simple guessing. Because of this, beliefs could satisfy both MI and EJ and yet be subject to a high degree of reflective luck.¹⁹

I want to suggest, however, that there *is* a mentalist notion of justification that is incompatible with reflective luck. This is the notion of 'well-foundedness'. The difference between Conee and Feldman's notion of justification and well-foundedness is roughly the difference between *propositional* and *doxastic* justification: the former kind of justification concerns the question whether an agent *S* *would* be justified in believing proposition *p*, whereas the latter concerns the question whether *S* *is* justified in believing *p*.^{20, 21} The latter, but not the former, implies that *S* actually believes *p*. Conee and Feldman specify the following criteria for well-foundedness:

WF: *S*'s doxastic attitude *D* at *t* toward proposition *p* is well-founded if and only if

- (i) having *D* toward *p* is justified for *S* at *t*; and
- (ii) *S* has *D* toward *p* on the basis of some body of evidence *e*, such that
 - (a) *S* has *e* as evidence at *t*;
 - (b) having *D* toward *p* fits *e*; and

¹⁹ Note that guessing is a belief-forming method that entails both reflective and veritic luck, since the beliefs it generates could have easily been false, both from the objective and from the subjective viewpoint.

²⁰ The comparison between mentalist justification and well-foundedness on the one hand, and propositional and doxastic justification on the other hand is made for illustrative purposes only. Even if the comparison fails the point remains that the notion of well-foundedness is more in line with the other concepts of justification discussed in this paper than the mentalist notion of justification is.

²¹ Goldman seems to target the same distinction when he distinguishes 'ex-ante' from 'ex-post' justification (1979:103).

(c) there is no more inclusive body of evidence e' had by S at t such that having D toward p does not fit e' . (Feldman and Conee 1985:24)

Can a belief be well-founded and yet reflectively lucky? As WF makes clear, a belief is well-founded only if it is based on a set of evidence e that is available to the subject and that fits the belief, and there is no more inclusive set of evidence available to the subject that does not fit her belief. Unfortunately, Conee and Feldman do not specify what it means for a belief to 'fit' a body of evidence, noting instead that while "there are difficult questions concerning the concept of fit ... [t]he application of EJ is clear enough to do the work that we intend here---a defense of the evidentialist position" (1985:2).

Whatever the precise notion of fit, however, I think it is clear that forming beliefs on the basis of evidence that fits them is a belief-forming method that would not easily produce false beliefs. If I form the belief that the grass outside is green on the basis of having a lush green perceptual experience, my belief may satisfy the criteria for well-foundedness, among which the requirement that it fits the body of evidence on the basis of which it is formed. If it does, it seems that forming my belief in this way could not have easily produced a false belief, given the information reflectively accessible to me. Some elaborate deception would have to be going on for my method to have produced a false belief. If given the information reflectively accessible to me, this *was* an easy possibility, the belief would no longer fit the evidence available to me. I conclude that beliefs that are well-founded cannot be reflectively lucky.

While Conee and Feldman reserve the term 'justification' for what we have called propositional justification, the theories that we have been considering thus far seem to be using the term 'justification' to refer to doxastic justification. This is evinced by the fact that all theories except mentalism refer to some form of belief-forming methods in their conditions for epistemic justification. Reliabilism refers to the reliability of the processes that generated the belief, competence based views refer to the competences exercised in generating the belief, and accessibilism, as we have construed it here, makes justification depend on whether the agent has violated any epistemic norms in forming her belief. Since propositional justification would attach to unbelievably propositions as well as believed ones, a reference to the belief-forming method in the definitions of justification considered here makes it clear that the intended notion of justification is doxastic, rather than propositional justification. Since we are concerned in this paper with doxastic, rather than propositional justification, we can conclude that Conee and Feldman's notion of *doxastic* justification (well-foundedness) is incompatible with reflective luck.²²

²² Pritchard argues that reflective luck is ineliminable (Pritchard 2005:8, 9). If this is right, the above will mean that we can never be (completely) internalistically justified. In line with Pritchard's insistence on perpetual epistemic *angst*, this may have sceptical implications. I will not go into this issue in the present paper. Thanks to an anonymous referee for stressing this point.

Both mentalism and accessibilism are compatible with veritic luck, however. To see this, we need only consider the New Evil Demon case again. Since the deception of the demon is very elaborate, we may suppose people in the demon world are in possession of the same reflectively accessible evidence as that we are in the actual world. By stipulation they go about forming their beliefs in the same way that we do. Thus, if much of *our* beliefs are well founded, so are theirs. But of course, if true at all, their beliefs will be subject to high degrees of veritic luck, for their belief-forming methods could have very easily produced false beliefs. So their beliefs could be well-founded yet veritically lucky. Also, since they have access to exactly the same reflectively accessible information as we do, it seems that if the accessibilist allows much of *our* beliefs to be justified, she should concede the demon's victims to be justified as well. Yet their beliefs are subject to veritic luck. So the accessibilist allows for justified beliefs that are veritically lucky as well.

We thus see that both accessibilism and mentalism are incompatible with reflective luck, but compatible with veritic luck. Since accessibilism and mentalism constitute by far the most prominent forms of internalism in the literature, we may suspect that internalist theories of justification in general are incompatible with reflective luck but not with veritic luck.

4. Implications

In this section I consider some implications of the findings from the previous sections. We found that prominent externalist theories of justification are incompatible with veritic luck but compatible with reflective luck. The converse was true for the considered internalist theories of justification: they were found to be incompatible with reflective luck but not with veritic luck.

Our findings indicate that it is a feature of externalist theories of justification in general that they exclude veritic luck but not reflective luck, and of internalist theories of justification in general that they exclude reflective luck but not veritic luck. Our findings thus suggest a new way of distinguishing internalist and externalist theories of epistemic justification. This an advantage because the usual ways of demarcation remain rather vague:

Epistemic internalism is the view that a thinker's epistemic status depends wholly on matters which are 'internal' to that thinker, rather than at least partially on matters which are 'external' to her, such as her relations to her environment. Let epistemic externalism be the denial of epistemic internalism. (Brown 2007:13–14)

Internalism asserts that justification is internally determined, whether by evidence possessed, or by coherence among beliefs, or by some other internal condition. Externalism about justification is readily understood as the denial that internal factors are sufficient. Something external has an independent role in justifying beliefs. Justification does not supervene on the internal alone.

(Conee 2004:48)

The above characterizations of the internalism/externalism debate on justification are not very informative: they characterize internalism as the assertion that justification is internally determined, and externalism as the denial of that claim. If our findings in the previous sections can be generalized, we have a more informative way to characterize the difference between internalism and externalism about epistemic justification: internalist justification entails the absence of reflective luck (but not of veritic luck), whereas externalist justification entails the absence of veritic luck (but not of reflective luck).

The present view coheres with Duncan Pritchard's claim that "externalists and internalists in epistemology often speak past one another precisely because they are concerned with ... different kinds of epistemic luck." (Pritchard, 2005, p. 9). Pritchard's claim concerns accounts of knowledge, however, rather than account of justification. So while the views may be compatible, they are not equivalent.

Our findings do corroborate Pritchard's claim to a certain extent. A theory of knowledge that includes a necessary internalist condition of justification will be immune to reflective luck. Strictly speaking, however, our findings do not bear on the claim that externalist theories of knowledge are incompatible with veritic luck, since an externalist on Pritchard's account may still adopt an internalist concept of justification, as long as she does not think such justification to be necessary for knowledge.²³

Moreover, Pritchard's claim goes beyond our findings in stating not just that internalism and externalism have the consequence of eliminating different forms of luck, but that they are *talking past* each other because they are *aimed* at different forms of luck. While more work thus needs to be done to argue for this latter claim, Pritchard's suggestion is especially interesting when applied to the present debate about epistemic justification, because it would allow us to explain some recent claims made by William Alston.

In *Beyond Justification*, Alston argues that internalists and externalists about epistemic justification are engaged in a verbal dispute, and that we should therefore eschew talking about justification altogether (Alston 2005). Alston's main argument for this claim is a pessimistic induction on several attempts to formulate a substantive concept of justification that internalists and externalists about justification disagree

²³ Perhaps this is how we can construe Plantinga's view (1993a, 1993b).

about. Alston's explanation is that the dispute between internalists and externalists is not based on substantive disagreement, and thus merely verbal.

If we apply Pritchard's suggestion to internalism and externalism about justification, we can provide independent support for Alston's conclusion. In particular, we would be able to explain *why* internalists and externalists about justification talk past each other by referring to the relations between internalism, externalism, and the various forms of malicious epistemic luck. Internalists and externalists talk past each other, on this picture, because their theories are aimed at eliminating different forms of luck: internalism targets reflective luck, whereas externalism targets veritic luck instead. Our findings would thus allow us to explain why Alston's claim would be true.

The assumption that internalist and externalist concepts of justification target different forms of epistemic luck also allows for a novel interpretation of Gettier-cases. Consider the following quote:

[I]t is because the justification is supposed to rule-out lucky knowledge that Gettier cases are so vitiating; they show that the justification condition is not doing the job it was meant to do, i.e. rule-out all cases of epistemic luck. (Booth 2011:39)

The picture Booth sketches is a standard one in epistemology: the justification condition is meant to rule out luck, but Gettier showed it is not up to this task. Booth concludes on the basis of this that the justification condition on knowledge "cannot be there to accommodate the anti-luck intuition" (Booth 2011:39).

Once one starts looking at the various malicious forms of epistemic luck, however, it becomes clear that our 'anti-luck' intuition is ambiguous. What kind of luck is justification supposed to rule out? Gettier's original paper features specific *internalist* forms of justification. Our findings suggest that this means that our original anti-luck intuition was directed more at the elimination of reflective luck than at the elimination of veritic luck. However, as Pritchard and Engel both argue at length, the kind of luck at issue in Gettier cases is *veritic*, rather than reflective luck (Engel 1992:69–70; Pritchard 2005:148). On this picture, what Gettier showed was not that justification failed to do the job it was designed to do, but rather that there is another form of luck, next to reflective luck, that is incompatible with knowledge. Externalist theories of justification can then be seen as attempts to formulate conditions on justification that are able to eliminate this other form of luck.

On such a picture, internalist and externalist justification can both be seen as sub-species of a general concept of justification: each directed at a different form of malicious epistemic luck. An interesting upshot of this way of thinking about justification is that we need not see internalist and externalist

positions as contradictory (the classical interpretation), or irrelevant to each other (Alston's interpretation), but rather as *complementary* positions. As we have seen, on the usual construal, externalism is the straightforward denial of internalism. But once we see that internalism and externalism target essentially different forms of malicious epistemic luck, it becomes possible to see internalist justification and externalist justification as complementary to achieve the common goal of eliminating malicious epistemic luck from knowledge.

This way of thinking sits easily with some recent claims about the structure of different levels of knowledge (Sosa 2007, 2009, 2010). For Sosa, there are three basic forms of knowledge: animal knowledge, reflective knowledge, and knowledge full-well. We already encountered Sosa's definition of justification as belief that is *adroit*. For Sosa, animal knowledge is apt belief; belief that is true *because* it is adroit. Reflective knowledge, for Sosa, is "apt belief, aptly noted" (Sosa 2010:12). The belief involved in reflective knowledge is thus a second-order belief; a belief about a belief. More precisely, reflective knowledge for Sosa is having an apt belief *p*, that one has an(other) apt belief *q*. Knowledge full-well, finally, requires in addition to reflective knowledge that the apt belief *p* (that one has an apt belief *q*) is able to guide the belief that *q* so that it is apt.

Sosa's different levels of knowledge merit much more discussion than I can give them here. The reason that they are mentioned, however, is that there seem to be some connections between Sosa's levels of knowledge and the forms of luck they are compatible with. For example, because it requires adroitness, apt belief is incompatible with veritic luck. It is compatible, however, with reflective luck. One may succeed in achieving truth because of the exercise of one's epistemic competences, even if, given the information reflectively accessible to one, one's belief could have easily been false. As we saw, chicken-sexer cases may present examples here. When some such chicken-sexer forms the belief that a particular chick is male, the belief may very well satisfy Sosa's criteria for animal knowledge while being reflectively lucky.

On the other hand, higher levels of knowledge are incompatible with *both* veritic *and* reflective luck. Because these higher levels all require apt belief, they are all incompatible with veritic luck. Contrary to animal knowledge, however, reflective knowledge requires the agent to aptly *believe* that she has formed an apt belief. This entails that she has to believe that she formed a true belief that is the manifestation of a competence to believe truly. Since we saw before that beliefs that manifest epistemic competences could not have easily been false, given the way they are formed, it follows that the agent who has reflective knowledge must aptly believe (call this belief *p*) that her belief that *q* could not have easily been false, given the way it was formed. Because *p* is among the information reflectively accessible to our agent, and the content of *p* is that *q* could not have easily been false, given the way it was formed, her belief that *q* could not have easily been false, given the information reflectively accessible to our agent (which includes the

belief p). Thus, Sosa's level of reflective knowledge requires the elimination of both veritic and reflective luck. Since knowledge full-well entails reflective knowledge, this kind of knowledge will also be incompatible with reflective as well as with veritic luck.²⁴

We found that externalist justification is incompatible with veritic luck, but not with reflective luck. The above suggests that Sosa's notion of animal knowledge just requires externalist justification, and no internalist justification. However, since the higher levels of knowledge both require the elimination of reflective luck, as well as the elimination of veritic luck, it seems that they would require internalist justification as well as externalist justification.

Sosa's views on the different levels of knowledge thus provide further support for the claim that rather than as contradictory positions, we should regard internalism and externalism about epistemic justification as complementary positions: insofar as we want to achieve reflective knowledge, we need both internalist and externalist justification.

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²⁴ Note that I am not claiming that reflective and veritic luck are the *only* malicious forms of epistemic luck. Therefore, the claim that Sosa's notions of reflective knowledge and knowledge full-well are incompatible with both forms of luck does not entail they are incompatible with *any* malicious form of luck.

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