

Luck in Epistemology

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WHAT IS LUCK?

In our mundane lives, we come across several events which we term as “lucky”. Finding a long-lost ring or surviving a dreadful car accident, all these instances are of sheer luck. In general terminology, we tag an event as lucky when all the circumstances that surround the event are very unfavorable. Most random example is of winning a lottery. It is absolutely a matter of luck if out of 200 lottery tickets, yours comes out to win.

WHAT IS LUCK IN EPISTEMOLOGY?

Background: According to the classical account of knowledge, knowledge cannot just be a true belief as one can have numerous true beliefs in a vague manner. One additional component that must be added to true belief to make it knowledge is justification for one’s belief. Justification is needed to know that there is a good reason behind a belief to be true. This proposal was given by Plato. It is also referred to as ‘tri-partite’ account of knowledge i.e., the three-part account which includes JUSTIFICATION, TRUTH AND BELIEF. The standard structure of this account is: If S knows p , then-

- p has to be true
- S must have a belief that p is true
- S must have a justification to believe that p is true.

Many contemporary epistemologists accept the adequacy of this tri-partite analysis of knowledge. However, most epistemologists point out that this account is although necessary for knowledge but is not sufficient for it. Edmund Gettier, an American philosopher was one such epistemologists who in his paper “Is Justified True Belief Knowledge?” (1963) proposed a set of counterexamples to this JTB theory. The most classic Gettier case is of a protagonist John who has a habit of looking at a wall clock to know time. The clock shows 8:20 a.m.

According to the JTB theory, John has knowledge because- Truth- The fact that the time is 8:20 a.m. is true

Belief- John believes that the time is 8:20 a.m.

Justification- the clock John has been looking at is very reliable at telling time for many years and he has no reason to think that it is faulty now.

The catch here is, that the clock has stopped working exact 24 hours before (by luck) and John is now forming a justified true belief by looking at a stopped clock. Here, even though John has fulfilled all the criteria laid by classical account of knowledge, he still lacks the knowledge.

Another famous Gettier case is the Chisholm’s sheep case in which a farmer by looking at a hairy dog forms a belief that there are sheep in the farm. His belief is true because there are sheep in the farm and it is justified too but the object the farmer is seeing is a dog. Here, farmer’s belief is lucky even if it checkboxes all JTB requirements. Therefore, the farmer lacks knowledge.

Henceforth, Gettier cases clearly showcased that luck plays a significant role in knowledge. This brought in the idea of luck in the realm of knowledge which came to be known as

Epistemic luck.

Epistemic luck refers to the role that luck plays in our acquisition of knowledge or a justified belief. It is a specie of luck which features in circumstances where a given cognitive success (some form of cognitive contact with reality) is attained in a manner that is lucky viz. accidental or beyond our control. This involves the formation of a belief that is luckily true, and where the subject plausibly deserves little credit for having gotten things right.

It is a common notion amongst epistemologists that knowledge is a true belief that has been formed in a non-lucky or non-accidental fashion. However, there are many commentators who say that all knowledge must be to some degree dependent upon luck as

knowledge involves a kind of union of agent and world and thus is dependent upon the cooperation of that world. As it is rightly put by Wittgenstein that “It is always by favour of Nature that one knows something.” Nevertheless, people who are very optimistic in the face of epistemic luck often face two broad challenges- firstly, it opens a way for radical sceptics who are waiting for a chance to strike back. Secondly, many of the writers who allow epistemic luck often fail to give any detailed account of just what it is that they are conceding and how, in particular, it differs from that variety of epistemic luck that should not be conceded.

THEORIES OF LUCK

There are three major theories of luck that have been significant in the realm of epistemology namely probabilistic theory of luck, lack of control and modal account of luck.

PROBABLISTIC ACCOUNT OF LUCK

According to the probabilistic account of luck, an event is lucky just in case it is highly improbable that it would happen. Thus, if an event has a less than fifty percent chance of obtaining, and is significant for someone, it is lucky for that person. A very accommodating example is the lottery one as winning the lottery is an exemplary case of an unlikely, or improbable, event.

Pritchard gives a few reasons for why he doesn't accept the probabilistic account of luck. Firstly, while it seems to capture the luck operative in the lottery case; it produces the wrong results when we fail to win the lottery. For most lotteries it's both the case that one's winning is a matter of luck and that one's losing is also a matter of luck (good luck in the first case, bad luck in the second). And yet in the latter case the event in question is a high probability event. While it may be likely for a person to lose the lottery, it is ultimately a matter of chance.

In the probabilistic account, significance of an event plays a major role. The relationship between probability and significance is an important one because it gives us reasons why our intuitions can be misleading at times. The significance aspect can be explained with this example- A lottery gives participants a one in a million chance to win

\$500,000,000. Here, losing is case of bad luck. But if a lottery offering the same amount of money is a one in a thousand chance, it seems to be worse luck even though we have increased the probability of the lucky event occurring. This shows that changes in probability alone cannot resolve competing intuitions.

LACK OF CONTROL ACCOUNT OF LUCK

The lack of control account of luck has been propagated by many philosophers like Daniel Statman, John Greco, Michael Zimmerman, and Wayne Riggs. As quoted by Greco, to say that something occurs as a matter of luck is just to say that it is not under my control.

Zimmerman defines luck in a similar manner- “something which occurs as a matter of luck with respect to someone P is something which occurs beyond P's control”. The central idea of this view of luck is: An event is lucky for a given agent, S, if and only the occurrence of such an event is beyond—or at least significantly beyond—S's control. The lottery example can be taken to say that winning/losing a lottery is something that is out of the agent's control. However, Jennifer Lackey comes up with a list of counters to show that lack of control is neither necessary nor sufficient for an event's being lucky. She begins with the sufficiency component-

if a lack of control is sufficient for an event's being lucky, then there will be a counterintuitive proliferation of lucky events. For instance, suppose that I walk into my kitchen, toast a bagel, and eat it with cream cheese. When my husband comes home ten minutes later, my eating a toasted bagel with cream cheese ten minutes earlier is an event that he neither had control over (he wasn't home) nor was sufficiently responsible for (he had nothing to do with my eating the bagel in question). But is it lucky for him that I ate a toasted bagel with cream cheese? If so, it is clearly not in any interesting sense of luck. Of course, details may be filled in for each of these scenarios so that the event in question is properly regarded as lucky. For instance, suppose that my husband's health requires that he be gluten-free, but he is nonetheless occasionally overcome with powerful cravings for bread and related food items. My eating a toasted bagel with cream cheese, then—which happened to be the 4 last item of food in our house that contained gluten—removed a temptation from his environment

that he would not have been able to resist, thereby saving him from a debilitating physical reaction. In such a case, it may be true that my eating a toasted bagel with cream cheese was, in fact, lucky for my husband. But however the luck in this revised version of the original scenario is explained, this does not show that a lack of control is sufficient for luck. (Lackey, 2008)

However, it might be argued here that lack of control account excludes such ordinary and mundane events and only looks up to the one having significance or importance but again this notion of significance is very ambiguous as there are events that are both clearly outside of an agent's control and of significance and importance to her, but which are nonetheless clearly not lucky. If we take such examples in considerations then there is no end to the events that are deemed lucky.

Lackey then brings in the necessity problem. The example quoted by her is as follows-

DEMOLITION WORKER: Ramona is a demolition worker, about to press a button that will blow up an old abandoned warehouse, thereby completing a project that she and her coworkers have been working on for several weeks. Unbeknownst to her, however, a mouse had chewed through the relevant wires in the construction office an hour earlier, severing the connection between the button and the explosives. But as Ramona is about to press the button, her co-worker hangs his jacket on a nail in the precise location of the severed wires, which radically deviates from his usual routine of hanging his clothes in the office closet. As it happens, the hanger on which the jacket is hanging is made of metal, and it enables the electrical current to pass through the damaged wires just as Ramona presses the button and demolishes the warehouse. (Lackey, 2008)

There are two things that has to be noted here- firstly, Ramona's success in blowing up the warehouse is an obvious case of chance. Ramona's coworker had to break his usual routine and hang his jacket in the exact location where the wires were severed at the exact time, she pressed the button for this event to happen, which is both unlikely and coincidental.

Secondly, Ramona's hitting of the button, which she might have avoided, directly caused the explosion which makes it a controllable occurrence. This shows that although an event maybe within an agent's control, the agent having such control might largely be

a matter of luck and henceforth the event resulting from this control can be lucky as well.

Therefore, lack of control is neither necessary nor sufficient for an event's being lucky. Thus, the lack of control account of luck fails to provide an adequate account of luck.

MODAL ACCOUNT OF LUCK

According to Pritchard, what lies at the heart of the concept of luck is not accidentality, chance, or a lack of control but the absence of counterfactual robustness. Whether an event is counterfactually robust or not is determined by the extent to which it is stable across possible worlds near the actual world in which the event occurs—the more stable an event is across such possible worlds, the more counterfactually robust it is. Due to this necessary connection between luck and the absence of counterfactual robustness, Pritchard has proposed the Modal Account of Luck. The core Modal Account of Luck says:

An event that actually occurs is a lucky event to the extent that it fails to obtain in close possible worlds where the same relevant initial conditions for that event continue to occur. In particular, the closer the possible world where the event fails to obtain relative to the same initial conditions, the luckier the event. (Pritchard)

This account is further explained by Pritchard through an example- Suppose that one has narrowly avoided being shot by a sniper, with the bullet flying inches away from your head. You are clearly lucky to be alive. According to the modal account of luck, the reason for this is that there is a close possible world where you have been killed by a sniper's bullet.

Moreover, notice that the modal account can neatly capture the idea that luck comes in degrees, such that some events are luckier than others. Imagine that in the actual world the bullet flies by not inches from your head, but feet. In that case, while we still might say that you are lucky to be alive, you are clearly less lucky than in the case where the bullet misses you by inches. But that difference is reflected in the modal account of luck by the fact that such physical distance from hitting you in the actual world will entail that the closest possible world where you are hit by the bullet will be further out.

This account has two severally necessary and jointly sufficient conditions:

Condition 1: If an event is lucky, then it is an event that occurs in the actual world but which does not occur in a wide class of the nearest possible worlds where the relevant initial conditions for that event are the same as in the actual world.

Condition 2: If an event is lucky, then it is an event that is significant to the agent concerned.

This account captures paradigmatic instances of luck, such as lottery wins and lucky discoveries of buried treasure, since such events are lucky precisely because they are both significant to us and occur in the actual world but not in a wide class of relevant nearby possible worlds. On the other hand, events like a landslide which affects no one fails the condition 2 as it lacks the appropriate significance and henceforth cannot be termed lucky. It also avoids the problems afflicting both the sufficiency and the necessity dimensions of the lack of control account of luck. Mundane events such as eating, walking etc. not only fails condition 2 but also often fail condition 1 by virtue of occurring in the actual world and in a wide class of the nearest relevant possible worlds.

However, Pritchard rules out the significance condition in his latter work. According to him, the issue comes down to what we are expecting from a theory of luck. Adding the significance condition certainly helps the account to match up with our ascriptions of luck, since we don't of course ascribe the property of luck to insignificant events, regardless of their modal profile. The fact that we don't ascribe the property of luck to insignificant events does not in itself suffice to show that insignificant events with the relevant modal profile aren't lucky.

COUNTEREXAMPLES TO THE MODAL ACCOUNT OF LUCK

- By Carter and Peterson:
Imagine that some event E occurs (i) in the actual world, and (ii) in a small class of the nearest possible worlds where the relevant conditions for E are the same as in the actual world. Also consider some other event E*, which occurs (iii) in the actual world, and (iv) in the very same small class of previously mentioned nearest possible worlds, and (v) in every possible world located just a tiny bit further away. So,

according to the modal account of luck, both E and E* will be classed as equally lucky events.

However, this is a problematic conclusion. It can be seen that E* is surely less lucky than E because E* occurs in many more worlds than E does. Suppose we construct the example such that the number of nearest worlds in which E occurs is just at the limit at which E would no longer count as a lucky event. That is, if E had occurred in, say, one or a few more of the nearest worlds, then E would not have been lucky. However, because E was in fact lucky, proponents of the modal account must concede that E* is (by the same rationale) lucky too. But this is absurd. By construction, E* occurs in the same worlds as E and in every possible world located just a tiny bit further way, and those somewhat more remote worlds should surely count for something.

This can further be explained with the help of an example-

Event E: imagine that you are in Edinburgh but wish to meet up with your sister in London tonight. You decide to take the East Coast Express from Edinburgh to London. To your surprise, the train actually arrives on time at 7.59 p.m. This event is a lucky event because the East Coast Express usually arrives in London at least ten minutes after schedule. However, E is fairly close to being a non-lucky event.

Event E*: This is the event in which you arrive in London no later than 7.59 p.m. There is a very reliable express coach running from Peterborough to London that is scheduled to reach its destination before 7.59 p.m. In a large number of the possible worlds in which you sit on the East Coast Express you notice that the train is running late as it stops in Peterborough. In those worlds you therefore transfer to the express coach and arrive on time in London no later than 7.59. Now the question is, if this event is lucky or not. Our intuition is that it is not. E* occurs in the same worlds as E and in every possible world located just a tiny bit further way. Those somewhat more distant worlds make the scales tip over. E* is not a lucky event.

This counterexample is similar to the claim made by Pritchard, Sosa and Carter that luck comes in degrees. In that case we construct the examples such that E occurs in the actual world and is lucky to degree x ("very lucky", "somewhat lucky", etc.) although E is just at the limit at which an event is no longer lucky to degree x. While E and E* both occur in the very same

small class of previously mentioned nearest possible worlds, the difference between E and E* is that the latter event also occurs in every possible world located just a tiny bit further away. Therefore, E* is lucky to a lower degree than E. But the standard formulation of the modal account lacks the resources to acknowledge this. On the standard modal account, all that matters is what happens in the nearest worlds.

• By Lackey:

According to Lackey, the modal account of luck is fundamentally incorrect. She explains this with the help of an example-

BURIED TREASURE: Sophie, knowing that she had very little time left to live, wanted to bury a chest filled with all of her earthly treasures on the island she inhabited. As she walked around trying to determine the best site for proper burial, her central criteria were, first, that a suitable location must be on the northwest corner of the island—where she had spent many of her fondest moments in life—and, second, that it had to be a spot where rose bushes could flourish—since these were her favourite flowers. As it happens, there was only one particular patch of land on the northwest corner of the island where the soil was rich enough for roses to thrive. Sophie, being excellent at detecting such soil, immediately located this patch of land and buried her treasure, along with seeds for future roses to bloom, in the one and only spot that fulfilled her two criteria.

One month later, Vincent, a distant neighbour of Sophie's, was driving in the northwest corner of the island—which was also his most beloved place to visit—and was looking for a place to plant a rose bush in memory of his mother who had died ten years earlier—since these were her favourite flowers. Being excellent at detecting the proper soil for rose bushes to thrive, he immediately located the same patch of land that Sophie had found one month earlier. As he began digging a hole for the bush, he was astonished to discover a buried treasure in the ground.

In this example we can see that, Vincent's discovery of the buried treasure is a lucky event. not only does he have no reason to think that a treasure has been buried in the particular location in which he was digging, he also has no reason to think that a treasure has been buried anywhere on the island. His happening to discover a buried treasure while attempting to plant a

rose bush in memory of his deceased mother is an instance of good luck. On the other hand, even though Vincent's discovery is clearly lucky, it fails L1 and is therefore excluded by Pritchard's modal account of luck. For given that there is only one patch of land on the northwest corner of the island that is suitable for roses to thrive, combined with the fact that only this spot satisfies both Sophie's criteria for proper burial of her treasure and Vincent's requirements for the location of planting his rose bush, the following is true: Vincent's discovering a buried treasure when he did is an event that not only occurs in the actual world, it also occurs in a wide class of the nearest possible worlds where the relevant initial conditions for such an event are the same as in the actual world.

Henceforth, in this buried treasure example, we have a paradigmatically lucky event that is nonetheless counterfactually robust, thereby showing that L1 of the modal account of luck is not a necessary condition of luck.

It might be said that Vincent's discovery merely seems lucky to him, when in fact it is not. But this seems implausible. Taking another example- suppose that Noah is the only person to survive an otherwise fatal plane crash because of an elaborate scheme that, unbeknownst to him, was orchestrated by a political group to ensure his survival. Suppose further that because of the factors determining this scheme, Noah's survival is counterfactually robust, i.e., he is the only survivor of the plane crash in question in all of the relevant nearby possible worlds. Now, even though Noah's survival may seem lucky to him because he is not privy to the factors determining it, it nevertheless is not in fact a lucky event. If Noah would discover that this event had been carefully planned all along, then he would plausibly no longer regard it as a lucky event.

However, such a response is simply not plausible with respect to buried treasure.

Counterfactual robustness is ensured in buried treasure through absolutely no deliberate intervention of any sort. Circumstances just happen to fortuitously combine in such a way so as to make Vincent's discovery appear both in the actual world and in all of the relevant nearby possible worlds. Were Vincent to hear all of the details surrounding his discovery, he would quite likely continue to regard it as an extraordinarily lucky event that he found Sophie's buried treasure while planting a rose bush.

Similar counterexamples can be constructed through the steps given below-

- choose a paradigmatic instance of luck, such as winning a game show through a purely lucky guess, emerging unharmed from an otherwise fatal accident through no special assistance, etc.
- construct a case in which, though both central aspects of the event are counterfactually robust, there is no deliberate or otherwise relevant connection between them.
- if there are any residual doubts that such an event fails L1, add further features to guarantee counterfactual robustness across nearby possible worlds.

Another set of events that reveal that (L1) and (L2) also fail to be jointly sufficient for capturing the concept of luck are called whimsical events. These are the events that result from actions that are made, either entirely or largely, on a whim. Lackey's example for whimsical event is –

I decide on a whim to take advantage of a low airfare and fly to Paris for the weekend. Given my otherwise cautious character combined with the whimsical nature of my decision, I could have easily chosen to do something entirely different for the weekend, such as join my family at the nearby art museum, or catch up on the pile of grading at work. Accordingly, my going to Paris for the weekend is an event that occurs in the actual world but not in a wide class of the nearest relevant possible worlds. Because such an event can surely be significant to me— say it has been a lifelong dream of mine to see the Eiffel Tower—it clearly satisfies both (L1) and (L2) of the MAL. But surely whimsical events are not always a matter of luck. For even if my choosing to go to Paris for the weekend is based on a whim, I am still consciously choosing to perform this action and am, therefore, responsible for whatever consequences— either positive or negative— result from it.

Hence, (L1) and (L2) are not jointly sufficient for an event's being lucky. The MAL is, therefore, false. However, it is important to notice that the lack of counterfactual robustness found with many whimsical events does not follow from the mere fact that such events are sometimes out of character. For instance, we can imagine that my decision to fly to Paris for the

weekend wildly deviates from my otherwise cautious character, but that it is neither whimsical nor lacking of counterfactual robustness. Perhaps, for instance, I have recently suffered the tragic loss of a loved one, and a weekend trip to Paris, though uncharacteristic, is a way of dealing with this tragedy that I am quite likely to pursue under the circumstances, thereby being such that it occurs in both the actual world and in a wide class of the nearest relevant possible worlds.

THE ANTI-LUCK PLATITUDE

According to this, if S knows a proposition p, then S's belief that p is not true by luck. This platitude has mostly found its place in Gettier counterexamples. For e.g.- in the Chisholm's sheep example, the farmer misconceives a hairy dog as a sheep and henceforth forms a belief that there are sheep in the farm. His belief comes out to be true (as there are sheep in the farm) by sheer luck. Therefore, many epistemologists do not define such true beliefs as knowledge. It is a common practice in philosophy to dismiss any and all knowledge that is incompatible with anti-luck platitude.

There has been a constant effort in contemporary times to distinguish between knowledge- undermining luck from innocuous epistemic luck. Duncan Pritchard's methodological approach to classify varieties of epistemic luck consists several factors that are necessary for knowledge. It tries to figure out what happens to our epistemological intuitions when they are obtained by luck. This leads to the distinguished varieties of epistemic luck are classified as 'malignant' or 'benign' depending on whether or not they have the capacity to undermine knowledge.

Benign epistemic luck:

- Capacity luck- it says that in order to know agents need not only exist, but also possess the relevant physical and psychological constitution. It might be a matter of luck that someone ends up being so constituted. This type of luck is not necessarily incompatible with knowledge specially in the case where the person exercises the relevant luckily acquired cognitive faculties competently.
- Content luck- Luck may play a role in determining the truth-maker for a proposition, but it doesn't undermine knowledge. For example, if your favourite team out of luck starts playing away after a

fair qualifying round draw, luck doesn't prevent you from understanding the true proposition that your team will start playing away.

- **Evidential luck-** it is entirely possible that due to sheer luck someone ends up having access to a certain batch of evidences. For instance, it's possible that Sherlock Holmes accidentally overheard a conversation and obtained his proof that the butler is the murderer. It is not knowledge-undermining because the luckiness of evidence does not necessarily transmit to knowledge. Sherlock's knowledge still relies upon his reasoning abilities even after the evidence has come out of luck.

Malignant epistemic luck:

- **Intervening luck:** this kind of luck comes in picture with respect to Gettier-style cases where the knowledge solely comes from sheer luck. In the above-mentioned example, suppose that Sherlock overhears a conversation where the butler tells to accomplice 'Do not worry, I killed him' and on the basis of this Sherlock forms a belief. However, it turns out with the pronoun 'him', the butler was not referring to a human but to his dog who got rabies. Henceforth, even after acquiring an evidence, Sherlock gets things right by luck and therefore he fails to know regardless of the true belief.

- **Environmental luck:** non-standard Gettier cases like the barn-façade case involve environmental epistemic luck as in these cases luck does not directly intervene in the way the subject forms his belief. Instead, the environment is such that possibilities of error could easily have become actual. Since it is a matter of chance that such a thing does not end up being the case, the resulting true beliefs are formed in an environmentally lucky fashion. In the barn façade case, Henry, a driver forms the lucky true belief that there is a barn right in front of him by directly looking at an area full of barns. However, there are many fake barns in the area which are indistinguishable from real barns and Henry is seeing a fake barn in front of him. Here, it is because of the environmental luck, that Henry's belief came out to be true but this cannot be distinguished as knowledge.

- **Reflective luck:** Epistemic luck might also operate at the reflective level. Duncan Pritchard argues that subjects in such an epistemic position are

reflectively lucky, not because they would get things wrong in standardly ordered close possible worlds but because they would get things wrong in the closest possible worlds that are consistent with what those subjects can know by reflection alone in the actual world. However, it is an open question whether reflective luck undermines knowledge. Most externalists take a negative stance against this as they reject that we need reflectively accessible grounds to know and claim that a belief can be both reflectively lucky and knowledge.

CHALLENGES TO THE ANTI-LUCK PLATITUDE

There are two different forms of scepticisms about the anti-luck platitude: a priori and experimental.

- **A priori philosophical grounds:** According to Stephen Hetherington, the anti-luck platitude rests on 'Epistemic Counterfactuals Fallacy'. According to this fallacy, these are instances where actual lack of knowledge is inferred from counterfactual lack of knowledge. Such a fallacy is committed by epistemologists who fail to attribute knowledge in certain cases simply because the agent in question could easily have not known. For e.g.- in barn façade case, epistemologists conclude that Henry does not possess knowledge since he would be tricked if he persisted in his quest. Such an inference confuses genuinely lacking knowledge with almost lacking it.

Moreover, Brent Madison suggests that proponents of the anti-luck platitude should accept Hetherington's claim that it is fallacious to infer from the fact that one could easily have not known that p, that one thereby does not know that p. Madison argues that this concession is not problematic for proponents of the anti-luck platitude, as they are not relying on this fallacious inference.

- **Experimental philosophy:** another source of scepticism about anti-luck platitude comes from experimental philosophy. Experimental philosophy is a new movement that uses systematic experimental studies to shed light on philosophical issues. In a study by John Turri, over 80% of participants that were surveyed, attributed knowledge in a barn façade style case, despite the presence of environmental epistemic luck. Similar results have been reported in other experimental studies as well such as those of Colaco,

Buckwalter, Stich and Machery (2014). The proponents of anti-luck platitude have at least some explanatory burdens in the light of these results.

EPISTEMIC LUCK AND EPISTEMIC RISK

Concepts of luck and risk are coextensive. The only difference lies in the fact that while luck can be both positive or negative, risk has a negative connotation and we do not usually talk about low levels of luck but we do talk about low levels of risk. Apart from this difference, Berrocal and Pritchard account for luck and risk in the same terms. Berrocal takes the lack of control account of luck to argue that an agent is at risk with respect to an event just in case it is beyond their control. In contrast to it, Pritchard takes the modal view of luck and thinks that an event is at risk of occurring just in case it would occur in at least some close possible worlds. This brings us to two concepts of risk- event-relative risk which is the risk that an event has of occurring and agent-relative risk which is the risk at which an agent is with respect to an event. Since there is a close relationship between luck and risk, there is also a close relation between epistemic luck and epistemic risk. Beliefs that are true by luck are beliefs that are formed in an epistemically risky fashion. Lucky true beliefs are beliefs that were at risk of being false in close possible worlds.

CONCLUSION

Luck in epistemology has been the center of debate over the past years. Many epistemologists such as Ernest Sosa, Linda Zagzebski, Jennifer Lackey have put light on this aspect of knowledge but this debate was brought into picture by Duncan Pritchard. Before Pritchard's anti-luck platitude, there hasn't been much work that has been done on luck. Also, most of the work that has been done by various epistemologists is somewhat a reply or an insight on Pritchard's theory. Starting from the anti-luck Gettier cases, it can be seen that luck in knowledge can be pointed out and further dismissed intuitively. This has been taken forward in the form where luck has been distinguished in various types in a way where few are said to be compatible with knowledge (capacity, content and evidential luck) while others are distinguished as incompatible with knowledge (intervening, environment and reflective

luck). Moreover, there are several other views and insights on this affair which can be talked about.

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