I will demonstrate that either there is no such thing as moral luck or everyone is profoundly mistaken about its nature and a radical rethinking of moral luck is needed. The argument to be developed is not complicated, and relies almost entirely on premises that should seem obviously correct to anyone who follows the moral luck literature. The conclusion, however, is surprising and disturbing. The classic cases of moral luck always involve an agent who lacks control over an event whose occurrence affects her praiseworthiness or blameworthiness. Close examination of what it is to have control or to lack it reveals the logical space for counterexamples that do not fit the pattern constitutive of moral luck, and so unravel the whole.

Here is the argument to be defended in what follows.

1. Moral luck occurs only when factors beyond an agent’s control positively affect the degree of praise or blame she deserves. (premise)
2. Thus, moral luck exists only in cases where the agent has low control over the relevant factors. (from 1)
3. Control is properly understood either in terms of chanciness or causation. (premise)
4. If control is understood in terms of chanciness, then greater control over an event reduces its chanciness and less control increases its chanciness. (premise)
5. Causation always involves a reduction of chanciness—the greater extent to which A causes B, the likelier B is given A. (premise)
6. Thus, greater control entails less chanciness, less control entails more chanciness, no matter how control is cashed out. Control and chanciness are inversely proportional. (from 3-5)
7. Thus, moral luck occurs only in cases that are low control and high chanciness (from 2,6)
8. There are both cases of moral luck that are high control, high chanciness, and cases of moral luck that are low control and low chanciness. (premise)
By reductio, premise (1) is false. (from 7, 8)

Thus, either there is no moral luck or everyone is deeply mistaken about its nature and a radical rethinking of moral luck is needed. (from 9)

Everyone who writes on moral luck agrees with (1). Everyone who offers any kind of analysis of control agrees with (3) and (4). Everyone who writes on causation agrees with (5). Everything else is an inference from those premises. Except (8). That is the sole controversial premise, the keystone that holds up the argumentative arch, and I will provide an original defense of it. The conclusion in (10) is a radical one, but one that is not easily avoided.

The idea that moral luck is to be understood in terms of a lack of control is present in the seminal discussions of Bernard Williams and Thomas Nagel. Williams writes, “what is not in the domain of the self is not in its control, and so is subject to luck” (Williams 1981, 20). Nagel’s entire discussion of moral luck is predicated on the idea that there is a clash between a pretheoretic assumption that nothing outside of our control can affect our moral assessibility and the various examples of moral luck (Nagel 1979, 25). One seldom finds unanimity among philosophers, but everyone who has written on moral luck subsequently concurs.

Martha Nussbaum contends that what happens to someone by luck is that which is outside their agency, and that to eliminate luck from one’s life is to put the things that matter under one’s control (Nussbaum 1986, 3-4). Claudia Card writes that what makes something a matter of luck is that “it eludes our control” (Card 1996, 22). According to Kok-Shor Tan (Tan 2012, 92), “luck … is meant to capture any situation outside the choices and control of individuals.” Joseph Raz insists, “the puzzle of moral luck arises only if we are to blame for actions or consequences that are beyond our control” (Raz 2012, 149). According to Ishtiyaque Haji, “Something is subject to luck, roughly, if it is beyond our control. Moral obligation is so subject in some familiar ways” (Haji 2016, 16). Robert J. Hartman writes, “Moral luck occurs when factors beyond an agent’s control positively affect the degree of praise or blame she deserves” (Hartman 2018, 1). He calls this “the standard view” (Hartman 2017, 23), but it is more than standard—it is ubiquitous and universal. Mark B. Anderson goes so far as to claim that in all the work ever done on moral luck, one can just replace “luck” with “lack of control,” salva veritate (Anderson 2019, 10).

I have argued in earlier work that moral luck must rely on a control theory of luck, and that it is incompatible with other general conceptions of luck, such as probability or modal theories (Hales 2015). Here I am not concerned with theories of luck per se; stipulating that moral luck involves a lack of control without worrying about the nature of luck is sufficient to generate the conclusion of the central argument. Moral luck exists only in cases where the agent has little or no control over some event that affects their praise- or blameworthiness.

Moral luck arises in situations where one lacks control, but how should we understand control? In Enchiridion §1, Epictetus argues that our intentions and actions alone are within our control, whereas achievement and success
are not. The general understanding of control has not advanced too far since then. Instead, as Joshua Shepherd (Shepherd 2014) observes, most writers on control are far more interested in types of control—managerial, guidance, voluntary, direct, indirect, cognitive, and so on—than in explaining control simpliciter. Shepherd notes that the common thread tying these various sub-types together is that one’s degree of control has to do with one’s rate of success in executing one’s intentions, and offers a rare definition of general control:

An agent J exercises control in service of an intention I to degree D in some token circumstance T if and only if (a) J’s behavior in T approximates the representational content of I to (at least) degree D, (b) J’s behavior in T is within a normal range for J, where the normal range is defined by J’s behavior across a sufficiently large and well-selected set of counterfactual circumstances C of which T is a member, (c) the causal pathway producing J’s behavior in T is among those normally responsible for producing J’s successes at reaching the level of content-approximation represented by D across C. (Shepherd 2014, 410)

This complex definition is shot through with modality; the degree to which an agent is in control of some outcome is directly dependent on the chanciness of that outcome. Shepherd makes it clear elsewhere in his paper (400–01) that the more probable it is that one can bring about a desired outcome, the more one is in control. One of his examples is a darts player who intends to hit the bullseye. The player’s degree of control over dart-throwing is equivalent to her success rate at hitting the bullseye “where the success-rate is measured across a sufficiently large and well-selected set of counterfactual circumstances in which [the darts thrower] possesses, and attempts to execute, [an intention to hit the bullseye]” (401). Shepherd notes that “we need a large number of cases before we get any useful information regarding just how lucky” someone’s success really was (400).

Shepherd tends to run together the distinction between the probability of executing one’s intentions (the chance of hitting the bullseye in similar situations) and the modal robustness of executing one’s intentions (the chance of hitting the bullseye as the circumstances of throwing become increasingly bizarre and distant from the actual world). There is an important difference between modality and probability—a losing ticket in a fair lottery is very probable, but the loss might not be modally robust. If one hits five out of six numbers, then it is a close possible world in which the lotto ball rotates a few more degrees in the hopper to make that ticket a winner. Even though such a win is modally close, it is still probabilistically remote.

While modal robustness/fragility and probability/improbability are conceptually distinct, they are both forms of chanciness. The takeaway point is that Shepherd thinks that the best way to understand control is in terms of the chanciness of bringing about some event, and it is only after a large number of trials that we can determine just how chancy one’s rate of success
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is, and hence their degree of control. Crucially, luck and control are tied together by chanciness. The chancier an achievement, the less it was a matter of control and the more it was due to luck. Greater control over an outcome diminishes its chanciness and the less it is the result of luck.

Jennifer Ryan Lockhart and Thomas Lockhart (Lockhart and Lockhart 2017, 312) explicitly make being in control a matter of modally robust success. On their view, if an agent was in control of performing $\phi$, then she successfully performed $\phi$ in every possible world in which she tried. An action that is modally fragile to any extent is not the result of control and is instead a matter of luck. Their view that true control amounts to a kind of modal infallibility is not very plausible; it is more common to see control as a matter of degree, mapping onto the degree of chanciness. That is Duncan Pritchard’s assessment: if an agent has control over an event and thereby determines that a certain outcome obtains, that implies that in a wide class of relevant nearby worlds the outcome is realized by the agent (Pritchard 2005, 130).

Hasko von Kriegstein (Von Kriegstein 2018) pushes for a probabilistic reading of control, insisting that one can distinguish achievement from lucky success only if the actions one takes make one’s success likely. The antithesis of a lucky result is one that is made likely by intentional action; the greater control an agent has over some result, the more probable that result becomes, and the less it is due to chance. For Von Kriegstein, sufficient control over an outcome amounts to a creditable achievement, although that further point is outside the scope of the present paper.

For Shepherd, Lockhart and Lockhart, Pritchard, and von Kriegstein, control is understood in terms of either modal or probabilistic chanciness. Greater control over an outcome reduces its chanciness and less control increases its chanciness. That is not the only way to conceive of control; another common approach is to view control in terms of causation.

As Shepherd correctly noted, most writers on this topic spend little time fleshing out what control is in general, since they are eager to move on to various kinds of control, or explain what sort of control is needed for moral responsibility or other projects. Nonetheless, everyone who does not analyze control directly in terms of chanciness makes causation a necessary condition for control. For example, according to Michael Zimmerman (Zimmerman 1987, 376), one enjoys control with respect to some event $E$ just in case one can bring it about or prevent it from occurring. Complete control would be when one also has control over all of the causal antecedents of $E$. Wayne Riggs agrees that one controls an event if and only if one brings the event about as the result of applying one’s powers, abilities, or skills (Riggs 2009, 218). Fernando Broncano-Berrocal explicitly claims that one can control an event $E$ only if one can cause $E$ to be in a specific state, and $E$ is in that state as a result of one’s causal disposition (Broncano-Berrocal 2015, 19). While Neil Levy wants to add an epistemic condition to the idea of control, insisting that an agent needs to know that and how a state of affairs is causally sensitive to his actions, the sine qua non of control is still causation (Levy 2011, 111).
For these theorists, control has to do with the powers, dispositions, abilities, and skills by which some event is brought about. Power is causal power, and to have control is to have a certain kind of causal influence over the world. John Martin Fischer writes, “The intuitive idea of control that underwrites moral responsibility requires that an agent selects from among genuinely open alternatives and thereby makes a difference through his free choice (and action)” (Fischer 2012, 91). Fischer’s idea of making a difference is that of causally affecting the world, of increasing the probability of one event over another. If we are causally inert (as we are with respect to anything outside of our light cone), then there is no sensible way in which we possess, or are in, control. As Rik Peels (Peels 2017, 57–58) affirms, one controls an event only if one can cause it to come about, or can cause its prevention. Control is a form of causal power.1

While all control enthusiasts note that more than causation is required to have a full account of control (e.g., intentions and something to prevent deviant causation), that does not matter for the present discussion. The salient feature is that for them, control is at its heart about causality.

The nature of causation is a vexed topic, and no original proposal is offered here. However we might finally understand causation, it is relatively anodyne to observe that causes increase the likelihood of their effects. That is, an agent, event, class of events, or omission causes some other event or class of events only if the former makes the latter less chancy. Jon Williamson writes, “Causal relationships are typically accompanied by probabilistic dependencies—normally when A causes B the former raises or lowers the probability of the latter” (Williamson 2009, 185). Von Kriegstein confirms, “Causing an event is either constituted or closely accompanied by making that event likely” (Von Kriegstein 2018). Michael Tooley agrees that causation is “related to increase in probability” (Tooley 2005, 417), and Wesley Salmon observes that “probabilistic causal concepts are used in innumerable contexts of everyday life and science” (Salmon 1993). Consider typical type-causal claims such as the following:

1. Smoking causes lung cancer.
2. Negligence causes accidents.
3. Ice cream causes happiness.

“Smoking causes lung cancer” can be true even when no single act of smoking leads to lung cancer, and even when life-long smokers live cancer-free to old age. Rather, smoking increases the chance of lung cancer; if it did not, we would not be motivated to think that smoking causes lung cancer. “Smoking causes lung cancer” means at least that smoking makes lung cancer more apt to occur (albeit not certain), and lung cancer is less likely (although not certain) if one is a nonsmoker. Likewise, negligence is not inevitably followed by accidents, although it makes them likelier, and occasionally one is displeased after eating ice cream, despite the low risk otherwise.

A decrease in chanciness is also present in token causation. Here are some sample cases.

1. Striking the match caused it to flame.
2. Turning the key caused the car to start
3. Taxation without representation was a cause of the American Revolution.

In a deterministic world, the probability that striking the match resulted in a flame is 1. If a specific turning of the key led to the car starting, then that turning reduced the chance of nonstarting to zero, and so on. It is because causation entails a decrease in (probabilistic or modal) chanciness that some have analyzed causation in just those terms. While those theories needn’t be adopted here, any adequate theory of causation must address the fact that not only does B follow A, but B is somehow more likely because of A (cf. Hume 1748 [1999], 6.4). However, that fact does not compel a particular theory of causation any more than the fact of color perception necessitates a particular metaphysics of color. Rather, a desideratum for an adequate theory of color is that it helps explain color perception, and a desideratum for an adequate theory of causation is that it helps explain how or why effects are made more probable or more modally robust by their causes.

To sum up the discussion to this point: everyone who writes on moral luck presents it as occurring only when factors beyond an agent’s control affect her blameworthiness or praiseworthiness. As we have seen, every analysis of control is either in terms of (modal or probabilistic) chanciness or in terms of causation. Causation itself implicitly involves chanciness—causes make their effects more likely, and the absence of a particular cause makes an event less likely. In short, all analyses of control or lack of control involve chanciness. Less control over an outcome makes the outcome more a matter of chance, and greater control makes the outcome less chancy. The inverse proportionality of control and chanciness is shown graphically in Figure 1.

Many things on the curve are not matters of luck. However, according to a general control theory of luck, all incidences of luck are located somewhere on the curve. One virtue of this account is that it clearly shows how luck (and concomitantly moral luck) is a matter of degree. Events aren’t simply lucky ones or not, but instead are on a fine-grained scale of luckier to less lucky. A second virtue of the present analysis is that by teasing out the relationship between control and chanciness, it neatly solves a longstanding objection to control theories. Andrew Latus’s well-discussed sunrise objection to the control theory of luck is this: the sun rises every day, its doing so is both significant to us and out of our control. Therefore, according to the control theory, it is just lucky when the sun comes up tomorrow. But the sun’s rising is not a matter of luck, so the control theory is wrong (Latus 2000). On Figure 1, however, the sunrise is at the origin: we have no control over it, and its chanciness is close to zero. Since the sunrise is not on the curve, in fact it is not lucky at all, which is the right result and helps vindicate Figure 1 as the best way to illustrate luck’s relationship to control.
Even if the control theory is not a satisfactory approach to luck in general, according to moral luck enthusiasts, all incidences of properly moral luck are located somewhere on the curve in Figure 1. For example, consider the familiar case (originally from Nagel) of the pair of drunk drivers. The first driver drives erratically, but arrives home safely. The second driver also drives erratically, but a pedestrian steps in front of the car and the driver kills him. The first driver was somewhat blameworthy for his actions, even though no one was harmed, but the second driver was much more blameworthy for her actions, even though hitting the pedestrian was bad luck. The first driver had good moral luck and the second bad moral luck, and this judgment fits nicely on the upper left part of the curve: they both had little or no control over whether a pedestrian stepped in front of their cars, and such an event was a very chancy one. Therefore, there was a good deal of luck involved in the case.

Or, consider Williams’s example of (an idealized) Gauguin. Gauguin abandoned his wife and five children in order to travel halfway around the world and devote himself to painting. Had he never achieved acclaim and produced great art, then he would have been unforgivably culpable as a negligent husband and father. However, he did paint masterpieces and find fame, results which could never have been assured in advance, and go a long way toward providing a moral justification of his choice. But Gauguin took a huge gamble on an unpredictable future; no one has control over the aesthetic judgments of history, or of the popular reception of one’s art. He might well have labored in obscurity, painting the nineteenth-century equivalent of Elvis on black velvet. His case too should be plotted on the upper left-hand part of the moral luck curve.
The more control we have over an event, the less chancy it is, and hence the less luck is involved in its occurrence. Take a simple act like that of making coffee. We typically have a great deal of control over the processes—we boil the water, grind the beans, put them into the French press, and press the plunger. There is very little chanciness involved with each of these steps, and our modest efforts make each of them likely to happen. When we have a hot mug of java at the end, little or none of it is attributable to luck. It is our good fortune to have a tasty cup of coffee, but not good luck, and it fits easily on the bottom right-hand quadrant of Figure 1.

So far, so good. Figure 1 captures the familiar and widespread intuitions about luck, control, and chance presented up to now, correctly makes luck a matter of degree, and provides a natural way to avoid the “sunrise” counterexample to the control analysis of luck. What is forbidden on this model are lucky events that are increasingly improbable or modally fragile and also involve an agent with increasing control. Also forbidden are lucky events that are increasingly probable or modally robust and also involve an agent with decreasing control. In other words, there are no instances of luck in the upper right-hand or lower left-hand corners of Figure 1. Nothing said so far should be controversial; I have only spelled out the familiar ways that philosophers understand moral luck and control. Those results constitute the first seven premises in the main argument of this paper.

Now we come to something unexpected: there are examples, both of nonmoral luck and moral luck, that cannot be placed on the curve of Figure 1. The existence of such cases violates the ubiquitous model of moral luck, and is premise (8) of the main argument of this paper. The capital letters A-G on Figure 2 correspond to these cases.

A. Hot streaks. Consider Joe DiMaggio’s celebrated hitting streak. His 1941 streak of safely hitting in 56 consecutive baseball games is widely considered the most outstanding record in the history of sport. Stephen Jay Gould once claimed that DiMaggio “beat the hardest taskmaster of all, a woman who makes Nolan Ryan’s fastball look like a cantaloupe in slow motion—Lady Luck.” DiMaggio was in full agreement, writing, “I have said many times that you have to be lucky to keep a hitting streak going.” The mathematicians Samuel Arbesman and Steven Strogatz conducted a Monte Carlo simulation on the history of baseball, using a comprehensive baseball statistics database (from 1871 to 2004). They constructed a variety of different mathematical models of alternate possible histories of baseball, taking into account for each player the number of games played, number of at-bats, times walked, being hit by a pitch, sacrifice hits, and so on. Their five models varied the minimum number of plate appearances and a few other variables, and they ran 10,000 computer simulations for each model. These simulations...
amounted to complete alternative histories of baseball. One of the results was that there was only between a 20% and 50% chance that anyone would have safely hit in 56 or more consecutive games. DiMaggio, who in the actual world did have a 56-game hitting streak, was barely in the top 50 of the most probable players to hold that record. In fact, they write that, “while no single player is especially likely to hold the record, it is likely that an extreme streak would have occurred.”\(^5\) The probability of someone or other having a long hitting streak is high, but the probability of DiMaggio in particular having the record is low.

Given the Arbesman and Strogatz analysis, it was very unlikely that DiMaggio would hit in 56 consecutive games. In fact, the longer the streak went on, the luckier he was to keep it up. However, just as salient as the improbability and luckiness of the streak is the fact that during it DiMaggio was performing at the very peak of his abilities. He was exhibiting the very highest degree of control over his hitting, batting .408 during the streak compared with his lifetime batting average of .357. One doesn’t have a long hitting streak by lacking control over the bat. DiMaggio’s lucky streak may have been improbable, but it was his superb control that brought it about, a confluence at odds with the control theory of luck.

**B. One-off high performance.** In a similar vein are one-off high performances, instances of outlier success that are still attributable to intentional, skillful action. One example is when a golfer hits a hole-in-one. According to

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Golf Digest, the chance of a professional golfer hitting an ace on a given hole is 2,500 to 1. An amateur golfer has only a 12,500 to 1 chance. The odds that anyone hits an ace are extremely low; it is a highly chancy event. The fact that a pro is five times more likely to do so than an amateur is indicative of the greater average control that the pro has over his stance, swing, club speed, and other factors that determine the ball’s final destination. An ace requires that the golfer do everything right, that he or she exercises maximum control over the club. Even so, hitting a hole-in-one is a great stroke of luck; as Hall of Fame golfer Ben Hogan quipped, “A shot that goes in the cup is pure luck, but a shot to within two feet of the flag is skill.”

Or, consider any number of sporting upsets. One of the greatest was the 1980 “Miracle on Ice” when a young team of American amateur hockey players beat the Soviet professional hockey team in the medal round of the 1980 Olympics, defeating a squad that had won the gold medal in five of the six previous Winter Olympic Games. This was the hockey equivalent of a high school football team beating the reigning Super Bowl champions. The International Ice Hockey Federation named it the best ice hockey story of the previous hundred years, writing “This game was and remains the greatest moment in international hockey. … For 20 college players to defeat a team that trained year-round and won virtually every game it played before and after truly is, in a sporting sense, a miracle. There is no other word for it.” There was little chance that the Americans would beat the mighty Soviets, and it was a lucky “miracle” for them to do so. The Soviet team did not play badly, or fail due to some bizarre set of circumstances. The Americans just played at the apex of their abilities.

The same pattern holds outside of sporting contexts. Edmund Gettier is famous for one thing: writing “Is Justified True Belief Knowledge?”, a three-page paper that revolutionized epistemology, and (according to Google Scholar) has been cited nearly 3,800 times. Even that number underestimates its influence, since “the Gettier Problem” is such a household phrase among philosophers that citing the original paper is as pointless as a Christian minister footnoting an offhand reference to the Gospels. Actually, Gettier is famous for a second thing as well: never publishing anything else in his long career. Despite the incredible improbability of publishing a field-defining argument in one’s sole paper, it was also the result of Gettier’s masterful insight. He knocked a hole-in-one in his first outing and never picked up a club again, a lucky shot that was nonetheless the result of mastery and control.

9. Similar examples would include Hugh Everett III, whose sole scientific publication introduced the many-worlds interpretation of quantum mechanics, or John Kennedy Toole, who committed suicide when he could not find a publisher for his first book A Confederacy of Dunces, which won the Pulitzer Prize after his death.
C. Moral luck high performance. The examples so far given in A-B are cases of nonmoral luck that do not fit the pattern of luck specified by the control theory. Here is a case of moral luck along the same lines. A sniper who hits a distant moving target is a one-off high performance case of outcome luck. Such a shot is very chancy; there is a low probability of success, but in that instance, the shooter had a very high degree of control. The lucky sniper lacks reliable control, but, like the golfer who hits a hole-in-one, in that rare instance possessed very high control over his actions. For example, Chris Kyle is credited with more kills than any other military sniper in US history. By every possible measure, Kyle was a world-class, professional marksman with as great a control over his weapons and shooting as anyone alive. In American Sniper, Kyle’s autobiography detailing his military career in the Middle East, he describes his longest successful shot. Near Sadr City outside Baghdad, Kyle spotted an enemy insurgent aiming a rocket launcher at an Army convoy. Kyle took aim with a McMillan TAC-338 sniper rifle fitted with a 25-power scope. “At 2,100 yards, plus a little change, it would take a lot of luck to hit him. … Whatever—I watched through my scope as the shot hit the Iraqi, who tumbled over the wall to the ground. ‘Wow,’ I muttered … Twenty-one hundred yards. The shot amazes me even now. It was a straight-up luck shot; no way one shot should have gotten him.”

If the Iraq War was an immoral war of aggression, then Kyle’s lucky shot increased his blameworthiness for participating in such an action. It was moral bad luck. If the Iraq War was a just war of liberation from an oppressive and violent regime, then his killing of the insurgent increased Kyle’s praiseworthiness, and was moral good luck. Kyle’s record of 160 confirmed kills also provides a moral luck case of a hot streak; it is a lucky, improbable achievement of a long record of success through skilled, highly controlled effort.

One might argue that there were many exogenous factors that led to both Kyle’s streak and to his 2,100 yard shot in Sadr City. The weather, his health, the movements and performance of both his comrades and the enemy, civilian interference (or lack of it), the orders of his superior officers, and many other factors were outside of his control. Had any of those circumstances conspired differently, he would have failed. His shooting is lucky all right, and this luck is explained by features of the world outside of his control. Therefore, Kyle does not count as a counterexample to the familiar analysis of moral luck—his is still a low control/high chanciness case after all.

Here is the problem with trying to show that Kyle’s shooting was outside of his control. He was in control of his streak and his shots to the extent that his abilities and efforts reduced their chanciness, and in this sense, he had great control. Yet his success was still extremely chancy, which is why

12. In Kyle’s own view, “Everyone I shot was evil. I had good cause on every shot. They all deserved to die” (Kyle 2012, 377).
it was characterized as high control/high chanciness. The critical argument of the previous paragraph concludes that Kyle’s is nonetheless a case of low control. Unfortunately, such a result makes everything out of our control in any meaningful way, and thus everything is a matter of luck. When even experts exercising their skills at the summit of their abilities still succeed only by luck, then Menander is right—“stop reasoning; for human reason adds nothing to Tuche ... All that we think or say or do is Tuche; we only write our signatures below.”\(^{13}\) The move of the preceding paragraph essentially insists that control be Zimmerman’s “complete control.” Only an omnipotent being, one who is in maximal command of all causal factors, would truly count as being in control—an impossibly high bar that threatens all moral responsibility. As free will theorists well know, a world where no one is really in control of their actions or their outcomes might also be a world where no one is responsible for any of their actions. Saving moral luck from high control/high chanciness, examples like Chris Kyle, comes at the expense of moral responsibility.

Cases A-C are ones of increasingly improbable/modally fragile events that also involve increasing control, something prohibited by a control theory of luck. There are also cases of both moral luck and luck simpliciter that are increasingly probable/modally robust events that exhibit decreasing control. These also fall outside the curve of allowable instances of luck, as illustrated in Figure 2. The first of these is

D. Lucky necessities. While I have explored the topic of lucky necessities more fully (Hales 2016), here is one such example. If the gravitational constant, \(G\), were a bit weaker, then the universe would have rapidly expanded into a thermodynamically entropic thin soup of lifeless fundamental particles. If it were a bit stronger, then everything would have clumped up into giant black holes and there would be no life. We hit the sweet spot: we are lucky that the gravitational constant made life possible.

What is the probability that the gravitational constant made life possible? Given the prior that there is life under \(G\) (who could dispute this assumption without self-contradiction?), the probability that \(G\) made life possible is 1. Furthermore, the usual understanding of physical necessity is strict entailment from the laws of nature. Clearly, the laws strictly entail themselves. Therefore, it is physically necessary that the gravitational constant isn’t stronger or weaker than what it is. While there are different constants in other possible worlds, worlds with different laws of nature are quite distant from this one. In other words, there is zero chanciness that the gravitational constant is what it is. Nor do we have any kind of control over the physical constants of the universe. Nonetheless, there is still the powerful intuition that we lucked out somehow, a judgment that does not fit on the curve of luck. While fortunate physical constants are not instances of moral luck, here is an example of a lucky necessity that is a traditional, familiar example of moral luck.

\(^{13}\) Cited in Eidinow (2011, 49).
E. Constitutive luck of birth parents. It is often claimed that we are lucky to be born into the successful, loving, prosperous families that we are, or unlucky to be born into dysfunctional or impoverished ones. Or, that it is good luck to be born with the right racial or ethnic characteristics in a racist society, bad luck to be born with genetic diseases. Financier Warren Buffett, for example, has claimed to be a winner in Rawls’s natural lottery (which Buffett calls “the ovarian lottery”). Buffett asserts that he could have been born intelligent or not intelligent, born healthy or disabled, born black or white, and that it was pure luck that he was born with the talents he has (Weisenthal 2013). As Nagel argued, constitutive luck has to do with the kind of person you are—your inclinations, capacities, and temperament. Buffett’s life turned out as wonderfully as it did because of a big helping of constitutive moral luck.

The problem is that, contrary to Plato’s Myth of Er in Republic X, we do not draw lottery tickets in an antechamber of souls prior to birth. It is a well-known Kripkean point that we have our parents essentially: we have no control over our genetic composition or who our parents are, nor do we have any control over our innate constitutions. At the same time, there is zero chanciness concerning them as well. Children born into other families, with other parents and other biological make-ups, are not me. There is no chance that Buffett could have been born a black woman in Bangladesh, or born thousands of years ago, despite what he claims (Roche 2013). Our intrinsic biological natures are beyond our control, and may be a matter of luck, but they are not due to chance. Latus familiarly observes that “lucky events are out of our control,” but since he fails to spot that control and chanciness are inversely related, he incorrectly thinks that fact “poses no real problem for constitutive luck” (Latus 2003, 471). In fact, it poses a deep and serious problem.

F. Circumstantial luck of birth. Another common claim is that it is a matter of moral luck to be born into a peaceful first-world nation instead of a war-torn third-world country, or born at one point in history instead of another. Our environment powerfully determines our language, religion, political leanings, career path, and ultimately the kinds of people we become. Nagel notes that the circumstances into which we are born and raised are beyond our control, even though those factors affect our blameworthiness or praiseworthiness. However, closer examination shows that many instances of circumstantial luck do not fit on the required curve of moral luck.

Consider the case of Jack and Oskar Yufe. In 1929, a 19-year-old Jew named Josef Yufe left his hometown in Romania for the Caribbean, looking to escape both widespread anti-Semitism and the strict religious expectations of his orthodox father.14 On the way he met a young German Catholic woman named Liesel, who fell for his good looks. They lived together for 4 years

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14. The best account of the twins is Segal (2005, chapter 3). The historical details in the present discussion are derived from that.
in the British Crown Colony of Trinidad, and had three children, including the identical twin boys Oskar and Jack, born in January 1933. Six months after their birth, Liesel, sick of Josef’s womanizing and excessive love of rum, decided she’d had enough. They separated and Liesel returned to Germany.

When their parents split, so did the boys. Oskar went to Germany with his mother, just in time for the advent of the Third Reich, which was epically poor timing for a boy with a Jewish father. It was immediately clear that any trace of Jewish ancestry had to be forgotten, and Oskar was advised never to say “Jew” again. Oskar’s grandmother, trying to stay ahead of the curve, subsequently changed his last name and had him baptized Christian. Oskar became an enthusiastic member of the Hitler Youth, convinced by the message of the Führer and inspired by German nationalism. Although he was still a boy when the war ended, it’s not hard to picture Oskar’s life trajectory if the war had gone on longer or if the Axis powers had won.

Jack stayed behind in Trinidad with his father, became a British citizen, and was raised Jewish. Just as Oskar disavowed his Jewish side, Jack did what he could to lessen the stigma of a German mother. He became a British patriot, joining the Sea Scouts (a first step toward entering the British Navy), and even earned an award from King George VI as a teenager. By the time the war ended, Jack had fully embraced his Jewish heritage. He moved to Israel, enlisted in the Israeli Navy, and married a woman he met at the Kibbutz Ma’ale Ha’Cramisha. Proud of his faith, Jack took to wearing a Star of David around his neck. It is hard to imagine twin brothers taking more divergent paths in life.

When the twins reunited in the 1950s, their meetings were initially tense and, unsurprisingly, they viewed each other with wary curiosity. While Oskar and Jack did eventually develop an ongoing relationship with each other, they were acutely aware of the dramatic role circumstantial luck played in their lives. Oskar once insightfully acknowledged to Jack that “If we had been switched, I would have been the Jew and you would have been the Nazi.”

Oskar and Jack had no control over either the circumstances of their births, nor did they have any control over the conditions of their upbringings. Their lack of control did not mean that it was improbable that they were born at a time of great anti-Semitism, or modally fragile that they were split up by their parents. The specific circumstances of their births and childhoods were not chancy. It was extraordinarily likely that a boy raised under the immense pressure of the Nazis would join the nationalist cause, just as it was for a Jewish boy growing up in a British colony during World War II to endorse his heritage. To the extent that their characters and life paths were governed by their circumstances, they were not a matter of chance.

G. All outcome luck under determinism. The familiar definition of determinism, going back to Van Inwagen (1983) is that given the laws of nature and a set of initial conditions, there is exactly one physically possible future. If determinism is true of our world, then there is zero chanciness about the outcomes of any actions—there is only one way the future is going to go and
there is no risk of future events other than the ones already locked into place. Likewise, under determinism, agents have zero control over the outcomes of their actions. Their intentional behavior is neither increasing the probability of some particular result nor is it decreasing the likelihood of counterfactual outcomes. Determinism ensures that the consequences of action are already probability 1, and worlds in which alternative events occur are remote indeed.

The problems that determinism poses for free will are heavily trampled ground. Relevant here is that if determinism is true, then any proposed instance of outcome or resultant luck fails to be on the required moral luck curve. Take Nagel’s pair of drunk drivers; it wasn’t chancy at all for a pedestrian to run in front of one of the drivers but not the other. In fact, that result was the only one physically possible. There is, of course, much written on the relationship between determinism and moral responsibility, but the additional wrinkle here is that since determinism implies that there is no luck at all involved with outcomes, it also means that there is no moral luck. Determinism, if true, prevents factors beyond an agent’s control from positively affecting the degree of praise or blame she deserves. Determinism is bad news for responsibility but possibly worse news for moral assessibility. As Nagel aptly notes, genuine agency, and hence all legitimate moral judgment, seems to shrink to an extensionless point (Nagel 1979, 35).

The usual philosophers’ response to counterexamples is to add new clauses to their definitions and make their analyses ever more fine-grained and byzantine. That familiar approach is doomed to failure here. Moral luck essentially involves a lack of control; that demand is captured in Figure 1 and is subject to the counterexamples in Figure 2. Adding more conditions to what counts as moral luck does not escape those cases. All increasing restrictions does is kick more putative cases of moral luck off the curve; it does not bring in the examples that never fit on the curve to start with. Moral luck is already too narrowly conceived; complicating the concept with more clauses and strictures only makes it narrower, not broader. “Moral luck” needs to be more inclusive, but there is no way of doing so as long as it is tied to a lack of control. That requirement—a demand of everyone who writes on moral luck—is the worm at the heart of the problems described above.

The other temptingly obvious move is to abandon the control theory of luck and try to make moral luck run on a probability theory or a modal theory of luck (popular treatments of luck in epistemology). That strategy also will not work. A lack of control is uniformly taken to entail a high degree of chanciness; the more one lacks control over an event, the more improbable it is that event will occur, or the more modally fragile that event’s occurrence becomes. A coextensive way to think of this point is that the control theory of luck entails either the probability view or the modal view of luck. As we have seen, there are several classes of examples of moral luck that are neither improbable nor modally fragile. That is, neither the probability view nor the modal theory is compatible with moral luck.15 Practically

15. I argue for the second conjunct in Hales (2015); the first conjunct is original here.
everyone who writes on luck has some version of a control, probability, or modal theory, even if they hybridize them or add on other clauses. But none of those base theories is, ultimately, compatible with moral luck.

Moral luck rests on the foundation of an agent’s lack of control. Most of the moral luck literature takes the notion of “control” at an unanalyzed, intuitive level. When control is more closely examined, the received view is that control is inversely proportional to chanciness; increasing one decreases the other. The upshot is that all cases of moral luck are to be located somewhere on the curve plotted in Figure 1. That is, a \textit{sine qua non} for cases of moral luck is that they are high chanciness/low control. What is surprising is how many instances of luck, and of moral luck in particular, fail to follow the prescribed pattern, and are either high chanciness/high control or low chanciness/low control. This wide variety of counterexamples, along different dimensions, shows that either there is no such thing as moral luck or everyone is deeply mistaken about its nature and a radical rethinking of moral luck is needed.\footnote{Thanks to Tobey Scharding and Andrew Khoury for criticisms of earlier versions.}

\section*{REFERENCES}


