



# Does folk disagreement about ambiguous lucky cases warrant an error theory? A response to Hales and Johnson

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#### **ABSTRACT**

Steven Hales and Jennifer Johnson—building off their (2014) work as well as Hales (2015, 2016)—have recently conducted two studies in Philosophical Psychology (2018) that show that there is a relationship between optimism and folk assessments of luck. Hales and Johnson use these results to argue that there is no such thing as luck. Instead, they claim that the concept is highly subjective and a cognitive illusion and that what we are in need of is an error theory. After reviewing Hales' and Johnson's position, I levy four objections against their view. First, they ignore the fact that luck involves a chanciness condition. Second, their standards for what it means to be a useful philosophical theory are too high. Third, their view ignores the fact that there are various accounts of value in the literature and assumes a kind of relativism that few people would be willing to accept. Lastly, their error theory is not supported by the empirical evidence. Because of these problems, Hales and Johnson's argument is not a serious threat to extant accounts of luck.

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Luck plays an important role in debates in political philosophy, epistemology, free will, and ethics. As such, how one defines "luck" is also important as the same event may end up being lucky, unlucky, or non-lucky depending on which theory of luck one favors. In the philosophical literature, there are currently four theories of luck: modal, control, and probability-based accounts as well as hybrid accounts. These theories share a common structure in that they claim that luck involves two necessary and jointly sufficient conditions: significance and chance.

That luck involves a significance condition is almost universally accepted. Significance is what makes a chancy event (such as the spinning of a roulette wheel, a lightning strike, or the decaying of an isotope) a matter of good luck, bad luck, or non-luck. The thought is that some events – for example, the weather at time  $t_1$  on a distant, lifeless planet – may be chancy, but they are not lucky unless they are good or bad for a subject (Coffman,

2007; Pritchard, 2005).<sup>3</sup> Significance also affects the degree to which an event is lucky. Other things being equal, winning lottery X is luckier than winning lottery Y if X's purse is larger (more significant) than Y's.

Extant theories of luck can be categorized by how they conceive of chance. The modal account of luck (see Carter & Peterson, 2017; Church, 2013; Pritchard, 2005, 2014) defines chanciness in terms of modal fragility. The thought is that a significant event is lucky if and only if it occurs in the actual world but - keeping the relevant initial conditions for the event fixed – this same event fails to occur in a dense enough selection of nearby possible worlds. 4 Control-based accounts of luck (see Broncano-Berrocal, 2015; Riggs, 2009; Statman, 1991) view the chanciness at issue in terms of control and claim that a significant event E is lucky for a subject S if and only if E is beyond S's control. Probabilistic accounts (see Rescher, 1995, 2014) define chanciness in terms of probability. However, there are many different interpretations of probability. Steglich-Petersen (2010, 2018) and Gregory Stoutenburg (2015, 2018) argue for an epistemic notion of probability, whereas Rachel McKinnon's (2013) account is frequentist in spirit. Lastly, hybrid accounts hold that luck involves more than one notion of chance. For example, Neil Levy's chancy account of luck (Levy, 2011, p. 36) as well as E. J. Coffman's (2015) and Rik Peels (2017, p. 202) accounts hold that a significant event is lucky for an agent if it is both modally fragile and outside of the agent's control. Additionally, Levy's (2011, pp. 29–36) nonchancy account of luck as well as Andrew Latus' view (Latus, 2003) hold that both control and relative infrequency conditions are necessary.

There is now a small but rich literature devoted to trying to give an adequate definition of luck, and, unsurprisingly, these different theories have been subjected to putative counterexamples (see Hales, 2015, 2016; Lackey, 2008), though the success of these counterexamples is contested (see Coffman, 2009; Levy, 2011, pp. 20-23; Pritchard, 2014; Stoutenburg, 2018). My focus in this paper, however, is on a novel, empirically-based objection to these theories. Recently, Steven Hales and Jennifer Johnson (Hales & Johnson, 2018) have conducted two studies that show that there is a significant correlation between a person's level of optimism and his or her assignments of luck. In both studies, it was found that "the degree to which an event is seen as lucky or unlucky [... could] be predicted by the attributer's personal optimism or pessimism [scores]" (2018, p. 1038). That folk assessments of luck can be influenced by cognitive factors or framing affects should be uncontroversial.<sup>5</sup> However, Hales and Johnson use these results to argue that there is no such thing as luck. Instead, they claim that the concept is highly subjective and a cognitive illusion and that we should be error theorists regarding luck involving claims. After briefly reviewing their two studies in sections 1 and 2, I recapitulate, in section 3, Hales and Johnson's best argument in support of their skeptical conclusion. I argue, in section 4, that this argument fails. Although current theories on luck may be flawed and vague, Hales and Johnson's argument relies on several implausible assumptions about value and their skeptical position is not supported by the empirical evidence. This is an important result. If Hales and Johnson's are correct, then theorizing about the nature of luck and its role in various philosophical debates is pointless. If luck does not exist and all claims about luck are false, then the way in which we view luck involving claims should be the same as the way in which a modern-day scientist views theories about phlogiston or the same as the way in which an atheist views God.

## 1. Case 1

In their first study, Hales and Johnson examined the relationship between dispositional optimism and attributions of good versus bad luck in ambiguous scenarios. These scenarios consisted of five vignettes that Hales and Johnson considered to be clearly lucky – an odd assumption given that they claim that there is no such thing as luck – but ambiguous and quite unclear with respect to whether the event was a matter of good or bad luck. For each vignette, the participants were asked to rate the event on a four-point scale as: unlucky, somewhat unlucky, somewhat lucky, or lucky. Each of these answers was assigned a number value 1, 2, 3, and 4, respectively, hence a person's overall luck ratings could be tallied on a scale from 5 (very unlucky) to 20 (very lucky). Here are a few<sup>6</sup> (I only consider three cases to conserve space) of the vignettes:

Vignette 1: In 1945, Tsutomu Yamaguchi was on business in Hiroshima when the first atomic bomb hit. He survived and went back to his hometown of Nagasaki, just in time to get bombed in the second-ever nuclear attack. He lived until he was 93. Tsutomu Yamaguchi was: unlucky somewhat unlucky somewhat lucky lucky

Vignette 2: Channing Moss was a US soldier serving in Afghanistan. His unit was attacked by Taliban insurgents, who fired an RPG into Moss's abdomen. The unexploded but live warhead stuck out of his left side and the rocket fins stuck out of his right. After a very risky operation, the RPG was removed. Several surgeries later, Moss is home with his family. Channing Moss was: unlucky somewhat unlucky somewhat lucky lucky ...

Vignette 5: Roy Sullivan was a US park ranger in Virginia's Shenandoah National Park. He holds the world record for being struck by lightning seven different times. He later died of unrelated causes. Roy Sullivan was: unlucky somewhat unlucky somewhat lucky lucky (2018, p. 1029)

Hales and Johnson hold that these scenarios are similarly ambiguous in that:

In each vignette, the individual faced a life-threating incident that seemed unlucky, but in each case the individual survived, which seemed lucky. For example, in vignette 1, Tsutomu Yamaguchi could be considered unlucky because he was present for two nuclear bombings or he could be considered lucky because he survived both. (2018, p. 1031)

In addition to the vignettes, the participants filled out a questionnaire that contained four further parts: a demographics section, the Life Orientation Test-Revised (LOT-R), a Lotus of Control Scale, and a Belief in Luck and Luckiness Scale. The LOT-R is a valid and reliable way to assess an individual's level of optimism. Hales and Johnson define optimism as "not only a trait disposition, but also a cognitive expectation that good things will be more likely to occur in one's future than bad things", and they view optimism-pessimism as a continuous, single dimension (p. 1030).

Hales and Johnson used a one-tailed Pearson correlation to determine whether there was a significant relation between one's level of optimism (LOT-R) and luck ratings. The analysis revealed a significant and moderate correlation. Hales and Johnson also used a "Statistical Package for the Social Sciences (SSPS) to conduct a stepwise multiple linear regression analysis to determine the best predictors of luck ratings" (p. 1034). They found a significant regression, and LOT-R scores significantly predicted luck ratings. Age significantly added to the modal but other demographic factors and variables from the Belief in Luck and Luckiness Scale were not significant. Hales and Johnson conclude that these results show that "participants' levels of optimism are significantly correlated with how they judge the luckiness of ambiguous cases" and that this study "provides additional evidence for the broader thesis that cognitive biases, constructs, or expectations play an important role in whether we interpret events as lucky or unlucky" (p. 1034).

## 2. Case 2

One possible objection to Case 1 is as follows. Hales and Johnson's vignettes are not simple events that contain only one stroke of good or bad luck.7 Instead, they are composite events that contain lucky and unlucky elements. Consider that vignette 2, by my count, is comprised of more than five distinct events or matters of fact: that Channing Moss served in the US army during the Afghan conflict, that Moss' unit was attacked by insurgents at a particular time, that during this attack Moss was hit by an RPG, that Moss made it to a hospital without further incident, and that he survived several risky surgeries. Thus, vignette 2 contains clear instances of bad luck (for example, that Moss was hit by an RPG) as well as clear instances of good luck (for example, his surviving several risky surgeries). It is possible then that Hales and Johnson's

subjects might have been confused about what, exactly, they were rating as lucky or unlucky. Perhaps Hales and Johnson's optimists took it as a given that Moss was struck by the RPG and considered him lucky to survive, while the pessimists thought that although Moss survived it was bad luck that he was shot and had to undergo several serious surgeries. If this is what they are doing, then there is no genuine disagreement in luck attributions amongst Hales and Johnson's participants. The two sides are talking past each other as they are not rating the same events. Hales and Johnson are aware of this objection and write that "One possibility is that in evaluating the overall luckiness of the compound event, optimists merely focus on the positive component, discounting or ignoring the negative event. Pessimists just do the opposite" (p. 1034). To alleviate this worry, Hales and Johnson conducted a second experiment.

The materials and procedures of Hales and Johnson's second study were identical to Case 1 except for one key difference. As a response to the above objection to Case 1, in Case 2, the five vignettes were split into their lucky and unlucky parts. The participants were first shown and then asked to rate (on the same scale of unlucky, somewhat unlucky, somewhat lucky, or lucky) what Hales and Johnson considered to be the unlucky component of the vignette. Next, participants were shown and asked to rate the lucky component of the vignette. Lastly, participants were shown and asked to rate the luckiness of the vignette as a whole. This process was carried out, in this order, for all five of the vignettes from Case 1. Here is how the second vignette appears in Case 2:

- 4. Channing Moss was a US soldier serving in Afghanistan. His unit was attacked by Taliban insurgents, who fired an RPG into Moss's abdomen. Channing Moss was: unlucky somewhat unlucky somewhat lucky lucky
- 5. The unexploded but live warhead stuck out of Channing Moss's left side and the rocket fins stuck out of his right. After a very risky operation, the RPG was removed. Several surgeries later, Moss is home with his family. Channing Moss was:unlucky somewhat unlucky somewhat lucky lucky
- 6. Channing Moss was a US soldier serving in Afghanistan. His unit was attacked by Taliban insurgents, who fired an RPG into Moss's abdomen. The unexploded but live warhead stuck out of Channing Moss's left side and the rocket fins stuck out of his right. After a very risky operation, the RPG was removed. Several surgeries later, Moss is home with his family. Channing Moss was: unlucky somewhat unlucky somewhat lucky lucky (2018, p. 1036)

Thus, participants rated 5 unlucky events (for example, number 4), five lucky events (for example, number 5), and five composite events (for example, number 6). When tallied, each of these scores could range from 5 (very unlucky) to 20 (very lucky), and a score of 12.5 would be neutral regarding good or bad luck.

The level of agreement among the participants in Case 2 is remarkable. Overall, 97% of the participants rated the good events as either somewhat lucky or lucky, and all the participants rated the bad events as either somewhat unlucky or unlucky. As in Case 1, Hales and Johnson used a SPSS "in order to determine the best predictors of luck ratings of the bad event in the scenario, the good event in the scenario, and the whole scenario" (p. 1037). However, in this study:

The results indicated that optimism scores significantly predicted ratings of the bad event in the scenario ... and gender significantly added to the model ... The other predictor variables did not significantly add to the model ... None of the variables were found to significantly predict luck ratings of the good event in the scenario or of the whole scenario. (2018, p. 1037)

Thus, optimism scores did not significantly affect the degree to which participant's rated either the good events or the events as a whole as lucky. Instead, what these results show is that more optimistic participants tend to rate isolated bad events that happen to others as less unlucky than their pessimistic counterparts, although both optimists and pessimists still view these bad events as being unlucky. Based on these results, Hales and Johnson conclude that "Optimism makes the bad events seem not so bad" (p. 1038).

## 3. Hales and Johnson's argument

Hales and Johnson's argument for their view that luck is a cognitive illusion is as follows:

- (1) If luck is an objective property, then at a particular moment in time, "the same person cannot be both lucky and unlucky [or also nonlucky] in the same way for the same thing" (p. 1041).
- (2) However, there is folk disagreement about lucky cases. For example, in Case 1, some participants rated the vignettes as either unlucky or somewhat unlucky, while others rated the same cases as somewhat lucky or lucky. Moreover, in Case 2, the participants disagreed about the degree to which the unlucky events were bad.
- (3) In the face of such disagreement, we look to our best philosophical and scientific theories to resolve the dispute and tell us who is right.
- (4) However, all current philosophical accounts of luck are "incapable of settling who is right" (p. 1041). The best hope for luck theories to be able to settle this disagreement is via an appeal to a significance condition. However, while a significance condition can tell us which events are a matter of good luck or bad luck, it cannot tell us the degree to which an agent should weigh questions of value and this is

where the disagreement between subjects lies. In Case 2, nearly all the participants agreed that the unlucky vignettes were unlucky/bad and that the lucky vignettes were lucky/good. "What they disagreed about is the value weighing of those facts" in that in Case 2 "the more optimistic participants rated the bad luck events as being more positive than the more pessimistic participants did" (p. 1041, emphasis original). It is likely that this difference led the optimists in Case 1 to the think of the vignette as a whole as lucky, while the pessimists viewed the same event as unlucky. But who is correct the optimists or the pessimists? Philosophical theory cannot tell us:

[T]he optimists and pessimists agree on all the facts relevant to the lucky event's significance, but still have a residual disagreement about the weighting of those facts. Significance fails to provide a principled way to adjudicate between the varying luck judgments of persons at different locations on the optimism/pessimism scale. The broader implication is that theories of luck lack the resources to decide whether optimists are right, or pessimists are. (2018, p. 1042)

- 5. "Given the failure of luck theories to demonstrate which folk attributions of luck are wrong or biased, a distinct possibility is that there is no such thing as luck and that what we now need is an error theory" (p. 1042).
- 6. One such error theory is that luck is nothing more than a highly subjective and loosely bounded folk concept. According to this account:

"Luck" is just a way to subjectively interpret our experiences, and luck attributions are delivered only after passing through certain cognitive filters. Wearing rose-tinted lenses, or ones that are drab gray, helps determine whether we see the events in Tables 1 and 2 [the different vignettes] as lucky or unlucky. Those lenses are not ones that we can remove, any more than we could see better without our eyes. (2018, p. 1042)

7. This error theory offers a better explanation of the facts than current luck theories. First, it can resolve the disagreement about whether certain cases are lucky or unlucky. According to the error theorist, there is no real disagreement between optimists and pessimists. Both parties are wrong as luck is not an objective property. All luck involving claims are false in the same way that claims about ether and witches are false. Second, an error theorist can explain why people have competing perceptions about lucky cases or why there appears to be a disagreement. That is, this disagreement is explained away by subjective factors such as one's level of optimism. Evidence for this claim is that Hales and Johnson, "have shown [in Cases 1 and 2] that the degree to which an event is seen as lucky or unlucky is predicted by the attributor's personal optimism or pessimism" (p. 1038).



## 4. Is an error theory warranted?

I will now evaluate Hales and Johnson's argument. My focus will be on premises 4, 6, and 7.

# 4.1 Objection 1: Is significance really the best (or only) way to resolve the disagreement?

Hales and Johnson assume that "Appeal to a significance condition offers the best hope for luck theorists to address the results of our studies presented above" (p. 1040). I am not convinced that this is true, and Hales and Johnson overlook the fact that degrees of luck can vary – not only because of significance – but based off of which notion of chance one thinks is relevant.

Consider the case of Mr. Yamaguchi. Two people could agree on the exact significance of this vignette and still disagree about the amount of luck involved in the case if they have different conceptions of luck's chanciness condition. Perhaps one person views the type of chance involved for Mr. Yamaguchi in terms of control. Such a person will think that the two bombings are extremely chancy for Mr. Yamaguchi as he has no direct control over these events. He does not even know that they will occur. However, a modal theorist will assign less chanciness to these events. This is because a world in which the United States did not drop two atomic bombs on Japan, dropped the bombs on different cities, or in which Mr. Yamaguchi was located elsewhere, would be dissimilar to the actual world and the targeted event. As such, Levy (2011) and Pritchard (2014) would likely argue that when the case is properly described there are at least some nearby worlds in which the bombs are dropped in the same way and Mr. Yamaguchi survives. This is because Mr. Yamaguchi was in Hiroshima for work related reasons for three months while his family lived in Nagasaki. Furthermore, during both bombings Mr. Yamaguchi was three kilometers away from the atomic blasts. Thus, a modal theorist will view this event as less chancy and hence less lucky than a control theorist.

Perhaps then the reason - or, at least, one reason - why Hales and Johnson's optimists and pessimists differ in their assessments of luck is because they conceive of chance differently, and there is empirical evidence that people sometimes differ in how they conceive of the chanciness at play in lucky events.<sup>8</sup> For example, even events that are traumatic and bad in and of themselves - such as serious car accidents - are often viewed as being lucky for a person if one is lead to think of them counterfactually. The thought is that you are lucky to survive a sixteen-car pileup with "only a broken leg" if in a dense selection of a nearby worlds you did not survive the crash. However, the same event viewed in terms of control would be viewed as being very unlucky.

This alternate explanation of the disagreement between Hales and Johnson's participants is important as Hales and Johnson's argument is meant to apply to all extant accounts of luck. This is presumptuous as a modal theorist, such as Pritchard, can give reasons for why we should think that an event is lucky or unlucky to a certain degree, whereas a control theorist, such as Broncano-Berrocal, could give competing reasons for why we should view the same event as lucky or unlucky to a likely different degree. But far from motivating an immediate switch to an error theory, this fact only emphasizes the importance of the current philosophical literature on the nature of luck.

# 4.2 Objection 2: Does the nature of the disagreement imply the need for an error theory?

At first blush, the fact that Hales and Johnson's participants disagree about the extent to which certain events are lucky is unremarkable. People disagree about many things. Physicists disagree about whether certain particles exist, both folk and politicians disagree about which public policies are preferable, and there is not a single philosophical position that is universally accepted. Thus, the fact that there is disagreement about whether ambiguous events should be thought of as lucky or unlucky is not a particularly strong reason to think that luck does not exist.

Hales and Johnson admit that no one is infallible when it comes to judgments about luck or significance. Thus, even though optimists and pessimists disagree about ambiguous cases, perhaps some assertions about luck are not only truth-apt but true as one side might be mistaken, while the other is correct. However, Hales and Johnson argue that there are three features of this disagreement that cast doubt on this option. First, participants agree on and have access to the same facts (as presented by the vignettes)9 and agree (as shown in Case 2) that the strokes of good luck are lucky and that the strokes of bad luck are unlucky. Second, the participants' judgments are reasonable. One side is not making an obvious irrational error. Lastly, as argued in premise 4, current theories are incapable of settling the dispute. It is the combination of these three factors that opens the door for an error theory.

With these considerations in mind, does the fact that a "Significance [condition] fails to provide a principled way to adjudicate between the varying luck judgments of persons at different locations on the optimism/ pessimism scale" imply that we ought to be error theorists (p. 1042)? It is important to reiterate that, according to Hales and Johnson, the disagreement between participants in Case 2 is about how we ought to value the unlucky aspects of the vignettes. Pessimists weigh these events as unluckier

than optimists and this difference likely causes their disagreement in Case 1 about whether the ambiguous vignettes are lucky or unlucky. Thus, it is the failure of philosophical theory to resolve how we ought to determine the degree to which the negative events are bad that is supposed to undermine all extant accounts of luck.

We can now see that Hales and Johnson are asking too much of a philosophical account of value. The fact that no current account of value can determine the exact degree to which a negative event is bad such that there is no room for reasonable disagreement is unsurprising. This is because no philosophical theories can give solutions to philosophical problems that satisfy all parties - few scientific theories even meet these incredibly high standards. For example, in philosophy of mind, there are numerous theories that try and explicate the relationship between the mind and the brain- for example, identity theory, eliminativism, dualism, and non-reductionist views that claim that mental properties are emergent or supervene on physical properties. In ethics, the goodness or badness of an action can be explained via consequentialist, deontological, or virtue-based theories; or by various skeptical positions such as error theory, emotivism, and relativism. In quantum mechanics, there are dozens of mathematical approaches that try and explain the collapse of the wave function. Most, if not all, of these views are reasonable, and the various experts in each of these fields are aware of the available facts and each other's theories. Furthermore, none of these theories can resolve disagreements within their respective fields in a way that would satisfy Hales and Johnson. Thus, if Hales and Johnson's argument in premise 4 is strong enough to motivate a switch away from theorizing about luck, then similar objections could be raised within nearly every philosophical and many scientific debates. It is likely then that Hales and Johnson's standards for what it is to be a successful philosophical theory are too high. Although a good theory ought to be prescriptive, it is just not the role of a philosophical theory to try and give precise, unobjectionable solutions to problems.

# 4.3 Objection 3: Hales and Johnson's argument relies on an implausible assumption about value

Hales and Johnson's criticism of extant theories of luck is really a criticism of meta-ethical accounts of value. While it is likely true that any plausible account of luck will involve a significance condition and as such be concerned with questions of value, current theories are more concerned with what notion of chance is relevant to luck. When philosophers of luck give accounts of significance, they do so to distinguish between lucky, unlucky, and non-lucky events as well as to account for the fact that luck admits of degrees. But no accounts of luck try and answer the question of how we ought to exactly weigh the value of certain events. This question, to the extent that it is answerable, is the purview of meta-ethics.

There are meta-ethical accounts of significance, value, or well-being that try to explain what makes an event good or bad for a subject. However, these accounts do not try and rate the goodness or badness of an event with mathematical precision such that there cannot be a minor disagreement about the exact badness of a negative event. Moral philosophy is not an exact science. Despite this, we can often understand questions about value and chance. That is, we can make sense of how some events seem to involve strokes of good luck (that is, are chancy and of positive significance for a subject), while other events seem to involve strokes of bad luck (that is, are chancy and of negative significance for a subject). While luck admits of some vagueness, this imprecision does not suggest that luck is a cognitive illusion.

However, for Hales and Johnson's error theory to be correct, <sup>10</sup> it is not enough that there is disagreement about questions of value. Instead, it must be the case that there is no fact of the matter about the significance of an event. This is because if an event is chancy and significant, then it is also lucky, regardless of whether people disagree about the exact significance of the event.

Let us assume, for the sake of argument, that there is no fact of the matter regarding overall assessments of value/significance and that all such claims are false. First, this premise is far more impactful and interesting than Hales and Johnson's claim that we should be error theorists about luck. But if relativism is true, then it is also the case that there is nothing wrong with torturing innocent people, the Holocaust, or any other event. Many people will find this outcome absurd or, at the least, a difficult bullet to bite. Second, such a revisionary claim requires a great deal of theoretical support. However, the only evidence that Hales and Johnson give in support of this view is that in their two studies it was found that their subjects disagreed about the exact badness of certain aspects of five vignettes, although they agreed that these parts of the ambiguous vignettes were, themselves, bad. This is not the kind of problem that keeps ethicists awake at night.

## 4.4 Objection 4: Do the results of cases 1 and 2 support an error theory?

Hales and Johnson's argument relies on the truth of premise 6, that is, that optimism is a cognitive bias that we cannot shake. This premise is supported by Case 1, which seems to show that individuals disagree about how to score ambiguous lucky cases and that where one stands with respect to this disagreement can be predicted via optimism scores. However, in Case 2 optimism scores did not significantly correlate with participants' luck ratings for composite events or for good events. But if optimism does not

significantly correlate with these assessments, why should we think that this bias is permanent? In fact, the results of Case 2 indicate a potential panacea for optimism bias, that is, split the composite events into their good and bad parts and then have participants rate each part as well as the event as a whole. When this is done, optimism no longer significantly affects judgments about the composite or good luck events.

Hales and Johnson do not offer an explanation for these results. Instead, they focus on their positive result, that is, that, in Case 2, participants' assessments of the bad luck components of the events significantly correlated with optimism scores. They use this result to explain the results from Case 1:

When forced to rate the luckiness of the bad luck events, participants' relative optimism or pessimism significantly correlated with their answers. Therefore, when presented with an ambiguous luck scenario comprising good and bad events such as those used in study 1, a plausible inference is that more optimistic people judge the bad events as less unlucky and this results in an overall luck score higher than the more pessimistic people. (2018, pp. 1037–1038)

This is a plausible interpretation of what is going on in Case 1. But this reasoning does not explain participant's non-biased assessments of the composite vignettes in Case 2. As such, Hales and Johnson overstate the role that optimism plays in folk assessments of lucky cases. Consider again their claim that "the degree to which an event is seen as lucky or unlucky is predicted by the attributor's personal optimism or pessimism" and that "attributor's own optimistic or pessimistic dispositions act like a thumb on the scale, tilting the outcome" (pp. 1038, 1043). These claims are unsupported by the evidence from Case 2.

This is problematic for Hales and Johnson's error theory for it means that their account cannot explain away any disagreement there might be between participants in Case 2. First, in Case 2 there was no disagreement between participants about whether the bad luck events were unlucky and 97% of the participants agreed that the good luck events were lucky. But since there was almost no disagreement about whether the individual strokes of luck were good or bad, there is no need to posit an error theory for these instances of luck. The best explanation for these results is that it really is a stroke of bad luck to, say, be struck by lightning, and it really is a stroke of good luck to, say, walk away from a lightning strike without permanent injuries.

Second, Hales and Johnson do not mention if their participants in Case 2 disagreed about whether the composite vignettes were lucky or unlucky. However, either way an error theory is unwarranted. If such disagreement exists, then Hales and Johnson's error theory cannot explain what causes this disagreement. Again, optimism did not significantly correlate with participant's luck scores for the composite and good luck vignettes in Case 2. Thus, it remains a possibility that attributions of luck differ because questions about chance and value are difficult, and we are not always in possession or in agreement about all the relevant facts. The other possibility is that there is little to no disagreement about Case 2's ambiguous vignettes. But if this true, then there is little motivation to posit an error theory in the first place. Thus, contrary to premise 7, the empirical evidence from Hales and Johnson's studies does not support an error theory over other explanations.

### 5. Conclusion

Hales and Johnson's argument is vulnerable to, at least, four serious objections.

First, Hales and Johnson assume that the best hope of settling the disagreement between their participants is via a significance condition. This is not obvious as an appeal to a chanciness condition could also be used to resolve the disagreement.

Second, Hales and Johnson argue that from the fact that we cannot determine the exact degree to which the negative events in their vignettes are bad that we ought to be error theorists about questions about value/significance and thus be error theorists about luck. This move is too quick. Few philosophical theories are capable of definitively settling who is right such that there is no longer any room for reasonable disagreement. Hence, the nature of the disagreement does little to motivate a switch to an error theory.

Third, there are philosophical accounts of value/significance that offer explanations for how events can be good or bad for a subject, although not to Hales and Johnson's exacting standards. However, for Hales and Johnson's error theory to be true it must be the case that there is no fact of the matter about the significance of an event. This is a substantial bullet to bite, and Hales and Johnson do not give us any reasons or independent arguments to support this claim.

Lastly, Hales and Johnson's own error theory cannot explain all the empirical results. Consider that their error theory has difficulty explaining why: all the participants viewed the strokes of good luck as lucky, nearly all (97%) of the participants viewed the strokes of bad luck as unlucky, optimism did not significantly affect the degree to which participants rated the good luck events as lucky, and optimism did not significantly affect participants' ratings of the ambiguous events as a whole in Case 2.

Because of these problems Hales and Johnson's argument is not a serious threat to extant accounts of luck. Luck theorists should continue refining current accounts, giving putative counterexamples to competing theories as well as defending their own views from such attacks, and, of course, any new analyses of the concept would be welcome. When it comes to conflicting



judgments about lucky cases, philosophers should heed Rik Peels (2017) point that although what events we consider to be lucky might be a subjective matter, "it is *not* a subjective matter what *are* cases of luck. Luck is not in the eye of the beholder" (p. 207, emphasis original).

#### **Notes**

- 1. For an alternate view on the importance of conceptual analysis on luck see Ballantyne (2014) and Anderson (2019).
- 2. The lone exceptions being Pritchard (2014) and Milburn (2014).
- 3. How the significance condition should be spelled out is an open question, and luck theorists differ in their accounts of significance. For more on significance, see Ballantyne (2012) and Whittington (2016).
- 4. There are many ways of capturing the above relationship between initial conditions, luck, the actual world, and possible worlds. As such, there are currently three different types of modal theories: proportional, distance, and density-based views (Broncano-Berrocal, 2016). For further discussion, see Hill (2020).
- 5. See Pritchard and Smith (2004) for an overview of the psychological literature as well as Hales and Johnson (2014).
- 6. In Case 1, Hales and Johnson also randomly assigned participants into one of two groups: a group that read the vignettes written in the third-person (as shown here) and a group that read the vignettes written in the first-person. When one outlier was removed, these two groups did not statistically differ concerning the results of Case 1 (p. 1034).
- 7. For more on "strokes of luck" see Ballantyne (2012) and Coffman (2015).
- 8. See Pritchard and Smith (2004, p. 11) for a review of this literature.
- 9. This is debatable. While participants do have access to the same vignettes, they likely disagree about many facts such as how dangerous being deployed in the military is and how painful it is to be shot.
- 10. That is, this must be the case for their error theory to be true. Suppose, however, that Hales and Johnson are only arguing that it is possible that their error theory is the correct view. If this is all that they are claiming, then their skepticism about luck is neither interesting nor threatening to current accounts of luck.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

#### Notes on contributor

Jesse Hill is an adjunct assistant professor at Tulane University. He has recent publications on the nature of luck in Erkenntnis and Business Ethics Quarterly.

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