



In defence of the modal account of legal risk

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Abstract

This paper offers an articulation and defence of the modal account of legal risk in light of a range of objections that have been proposed against this view in the recent literature. It is argued that these objections all trade on a failure to distinguish between the modal nature of risk more generally, and the application of this modal account to particular decision-making contexts, such as legal contexts, where one must rely on a restricted body of information. It is argued that once the modal account of legal risk is properly understood as involving information-relative judgements about the modal closeness of the target risk event, the objections to the view are neutralized.

Keywords Epistemology · Legal theory · Evidence · Safety · Risk · Legal risk · Epistemic risk

1 Introduction

There are a number of ways in which risk assessments are relevant in legal contexts, not least in terms of the minimizing the risks that legal judgements are erroneous, particularly in cases where the costs of a faulty legal judgement are high (e.g., in the context of a criminal trial, where an innocent person is found guilty). I've argued elsewhere that the correct way to understand risk is in modal terms, and that this casts light on several legal debates.¹ In particular, it helps us to understand why certain kinds of epistemic support are preferable to others, even though on traditional ways of thinking about the nature of epistemic support it is unclear why this should be so. I've further argued that this conclusion has specific implications in the legal case, not

¹For the core defence of the modal account of risk, see Pritchard (2015). For its application to the legal case, see Pritchard (2015, Sect. 6, 2018b) and Helmreich and Pritchard (2021). For the application of the modal account of risk to other domains besides law, see Pritchard (2016, 2018a). The modal account of risk that I offer is closely related to the modal account of luck that I've previously developed, on account of the tight relationship between the concepts of luck and risk—see Pritchard (2005, chapter 5, 2014, 2015, 2019).

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least in terms of understanding why certain kinds of legal evidence have the weight they do (or lack it, as the case may be).

The application of the modal account of risk to the legal case, and in particular concerning legal evidence, has recently come under critical scrutiny. With these critiques in mind, I here revisit the account. I argue that these criticisms rest on a misunderstanding of the proposal by failing to distinguish between the modal account of the nature of risk more generally and the application of this account of risk in specific information-relative contexts, such as one finds in legal settings. Given that these criticisms reflect a misunderstanding of the proposal I will begin by setting out in some detail the modal account of risk and its epistemic ramifications, before explaining how both elements come together in the modal account of legal risk.

2 The modal account of risk

As I've explained elsewhere, it is useful to think of risk assessments in terms of a target *risk event*, which is an unwanted possible event that is of concern with regard to the target risk assessment.² There are two axes of evaluation when it comes to risk assessments: the level of risk in play, and the significance of the risk event at issue. Sometimes these two aspects of our risk assessments can pull us in opposite directions. For example, we may be sanguine about the high risk of a trivial possibility obtaining, such as stubbing one's toe, and yet be extremely concerned about a relatively low risk of a devastating possibility obtaining, such as a nuclear holocaust. In order to keep matters as simple as possible, we can factor out the significance element in our risk assessments by keeping the significance of the relevant risk events broadly equivalent. So long as we do so, then our concern about risk straightforwardly tracks the extent of the risk, such that the higher the risk, the more concerning it is—i.e., for any two risk events of broadly equivalent significance, if the risk of the one is higher than the other, then it is of more concern to us.

With all this in mind, one might naturally think of risk in straightforwardly probabilistic terms. Accordingly, we can then treat high levels of risk as being when the target risk event is high probability (i.e., likely to occur), and low levels of risk as being when the target risk event is low probability (i.e., unlikely to occur). In this spirit, we might explain, for example, why trains are a lower risk form of transport than cars. If we take the target risk event to be a serious accident resulting from the use of the transport in question, then we can account for why train travel is lower risk than plane travel as the probability of the target risk event is much higher in the latter case.

The probabilistic account of risk is not tenable. For while in general the probability of the target risk event tracks the level of risk in play (we will see why in a moment), this is not universally the case. In particular, there can be low probability risk events that are nonetheless high risk. We can understand why by considering lottery cases. One interesting feature of lotteries is that although the probability of one's ticket being a winner is astronomically low, it is nonetheless the case an easy possibility that one's

² See Pritchard (2015). Note that there might be complex risk assessments where there are multiple risk events in play, but we will keep matters manageable by focusing on cases where there is just a single risk event. See Pritchard (2021) for a discussion of multiple epistemic risk events.

ticket wins, in that very little needs to change about the actual world for it to be a winner. As lotteries are usually drawn, for example, all that is required is that a few colored balls fall in a slightly different configuration. Ordinarily, low probability events are also modally far-fetched events, in that a lot needs to change about the actual world in order for a low probability event to occur. (Consider the low probability event that I will win Olympic gold in the 100 m at some point, for instance, which would—I assure you—demand radical revisions to the nature of the actual world).

The reason why this is significant for our purposes is that when a risk event is modally close, then it is high risk even though it might be a low probability event. Consider, for example, a special kind of lottery where everyone is obliged to participate but that, instead of winning a fortune, the winner is instead subjected to a gruesome death. The risk event associated with ‘playing’ this lottery will thus be a grisly demise. While the probability of this risk event will be low, however, this is nonetheless an easy possibility, in that it is something that could very easily occur. Moreover, it is also intuitively high risk—everyone who ‘plays’ this particular lottery is at a high risk of a gruesome death, given how modally close such an outcome is.³

The idea behind the modal account of risk is thus that we should understand levels of risk not in probabilistic terms but rather in terms of the modal closeness of the target risk event, such that the closer it is, the greater the level of risk in play. Risk thus lies on a continuum between maximal risk, where the target risk event is not only modally close but also actual, and the maximal absence of risk, where the target risk event is simply impossible.⁴

The modal account of risk can account for why, in many cases (but not all cases), probabilities will be a good guide to risk. This is because in general high probability events are modally close while low probability events are modally far-off. But since modal closeness and probability come apart in the manner just outlined, and since where they do our judgements concern the modal closeness of the target risk event rather than its probability, probabilities alone are not the full story about risk.

The modal account of risk can also explain why we are concerned with there being checks and safeguards when it comes to avoiding serious risks. For example, the probability that a safety system on a nuclear power station fails may be very low, but if there is no safeguard in place when it does, then a nuclear disaster could nonetheless be high risk due to the modal closeness of the target risk event (i.e., the possibility of a nuclear disaster would then be akin to a lottery event). In contrast, adding checks and safeguards onto the safety system—such that, for instance, a second safety system kicks-in if the primary safety system fails—will have the effect of making the target risk event not only unlikely but also modally further out, and hence lower risk.

³ There is a wealth of empirical work on risk, and also the closely related notion of luck, that confirms this modal dimension to our risk (and luck) ascriptions, as discussed in Pritchard (2015). See also Pritchard and Smith (2004), which explores this empirical work with a specific eye on luck (though most of what applies to luck also applies to risk, given their close connections). As explained in Pritchard (2015), the empirical basis for this modal construal of our risk ascriptions is not undermined by the fact that some of our risk ascriptions are the result of cognitive bias. On this point, see also Ebert et al. (2020).

⁴ Note that the maximal absence of risk is a stronger notion than *de minimis* risk, which is when the risk is low enough to be completely disregarded for all practical purposes. For discussion of *de minimis* risk, see Fiksel (1985), Mumpower (1986), and Peterson (2002).

According to the modal account of risk, the actual levels of risk in play are determined by the relevant facts in the actual world, since they will in turn determine the modal closeness of the risk event. It doesn't follow, however, that in order to make judgements about risk one needs to have access to all the relevant facts in the actual world. If that were so, then it would be a major disadvantage of the view, given that often we need to make judgements about risk under conditions of significant uncertainty. The modal account, however, can guide one in making decisions about risk that are based on incomplete information, as it indicates which factors one should be focusing upon in making such a decision.

Consider again someone who is trying to ensure that a nuclear power station is safe from a causing a nuclear disaster. There may be a whole range of unknown variables in play in this regard, such as the extent to which extreme weather can influence the effectiveness of the safety systems, or just how likely it is that there is significant seismic activity in the area. What the modal account of risk tells us is that in reducing risk it is not enough to make the target risk unlikely, as that's compatible with it nonetheless being modally close, but one must specifically ensure that it is modally far-off. A defensible anti-risk strategy must thus show that measures were taken to ensure that the target risk event was modally far-off, such as by bringing in the kinds of checks and balances mentioned above. It might also involve fact-finding that is concerned with factors that could indicate that the target risk event is modally closer than one presently supposes (e.g., to fill gaps in one's incomplete knowledge of weather patterns and how they influence the operation of safety procedures).

We can thus distinguish between actual risk, which depends on the actual factors in play, and an information-relative assessment of risk, which is one's best judgement about levels of risk relative to a particular body of information. Where one's information is accurate and reasonably comprehensive, and one makes use of that information in epistemically appropriate ways in forming one's judgements about risk, then the latter will tend to approximate to the former. But where there are substantial inaccuracies or gaps in one's information, then even an information-relative assessment of risk with an excellent epistemic pedigree can come apart from the actual risk in significant ways. Nonetheless, an information-relative assessment of risk is meaningfully guided by the modal account of risk, in that it offers the subject the means to assess, relative to their information regarding relevant features of the actual world, what the appropriate level of risk at issue is, and also what kinds of strategies would lower this risk.⁵

3 Epistemic implications of the modal account of risk

The modal account of risk has epistemic ramifications, given that we want our beliefs to not be subject to high levels of epistemic risk. That is, there is an epistemic risk

⁵ One can model an information-relative risk assessment on the lines of an information-relative ordering of possible worlds, whereby one orders possible worlds in terms of one's information regarding the actual world (i.e., as opposed to ordering them in terms of the facts about the actual world). One would thereby have a modal account of information-relative risk that was structurally isomorphic with the more general modal account of risk. A similar idea, concerned with delineating a particular kind of evidence-relative epistemic luck *reflective epistemic luck* is described in Pritchard (2005, chapter 6).

event associated with forming a belief on a certain epistemic basis, which is forming a false belief on this basis.⁶ Accordingly, in aiming to minimize epistemic risk we are seeking ways of forming beliefs that make this epistemic risk event modally remote. That is, one is aiming to form one's belief on an epistemic basis such that there is not a close possible world where one's belief, so formed, is false.

The modal account of risk thus helps to motivate what is known as the *safety* condition on knowledge, which is the thesis that knowledge demands a true belief formed on an epistemic basis such that it couldn't have easily been a false belief.⁷ If well-formed belief in general involves the minimization of epistemic risk in the manner just outlined, then it is also to be expected that knowledge would demand safety, given that knowledge involves a true belief that has cleared a significant epistemic threshold.⁸

That safety of this kind is demanded for knowledge on anti-risk grounds explains why even apparently strong levels of evidence from a purely probabilistic point of view can be insufficient for knowledge. For example, one cannot come to know that one's lottery ticket is a losing ticket simply by a priori reflection on the astronomically long odds involved in a typical lottery, as one could very easily form a false belief on the same epistemic basis (i.e., one's belief is unsafe). One's evidential basis, while strong from a probabilistically perspective, is weak from an anti-risk point of view, as the very same epistemic basis would result in a false belief in the close possible world where one's ticket is a winner (and one's purely statistical supporting evidence remains unchanged). In contrast, forming one's belief that one has lost the lottery by reading the result in what one knows to be a reliable newspaper can suffice for knowledge. Even though such an epistemic basis may be weaker from a purely probabilistic perspective (certainly compared with the evidence gained by reflecting on the astronomically long odds involved of winning a lottery), it is stronger from an anti-risk point of view, as this epistemic basis couldn't easily lead one to form a false belief. In particular, in close possible worlds where one forms one's belief on this epistemic basis and one's lottery ticket is a winner, one will read the correct result in the reliable newspaper and hence form a different belief as a result (i.e., the belief that one's ticket is a winner). This epistemic basis can thus support a safe belief and hence be compatible with knowledge.

Note that although it is natural to express the epistemic anti-risk requirement in terms of knowledge, on the grounds that it captures a necessary condition for this fundamental epistemic standing, the requirement isn't essentially tied to knowledge. The more general idea is that there is an epistemic goal to minimize epistemic risk, where epistemic risk, in keeping with risk more generally, lies on a continuum between

⁶ At least, this is the core epistemic risk event, the one that is most applicable to knowledge for example. One can in principle formulate other kinds of epistemic risk event, however, and also imagine complex cases where there are multiple epistemic risk events at issue. Moreover, one can also imagine epistemic risk events that are concerned with propositional attitudes other than belief (indeed, we will be considering an epistemic risk event involving legal verdicts below). For discussion of some of these issues, see Pritchard (2021).

⁷ The safety principle has been defended in various forms by Sainsbury (1997), Sosa (1999), and Williamson (2000).

⁸ For more on anti-risk epistemology, including its relationship to the safety condition, see Pritchard (2016, 2020). See also the earlier work on the closely related proposal of anti-luck epistemology in Pritchard (2005, 2007, 2012).

maximal epistemic risk, when the epistemic risk event (the false belief in question) is actual, and the maximal absence of epistemic risk, when the epistemic risk event isn't even possible. Only when the epistemic risk in play is sufficiently low is the belief in the market for knowledge.

Just as the modal account of risk can help us understand decision-making involving risk in information-restricted contexts, the same applies to epistemic risk. (This is unsurprising, given that epistemic risk is just a sub-category of risk). As with risk in general, what fixes the actual level of epistemic risk will be the facts about the actual world that determine the modal closeness of the epistemic risk event. Subjects are often forming beliefs against a backdrop of limited information, however, and hence these facts about the actual world may not be epistemically available. Nonetheless, an anti-risk epistemology will usefully guide such subjects in forming their beliefs in ways that would minimize epistemic risk, given the restricted information they have available.

Consider again the scenario where an agent, in normal conditions, is forming a belief about whether her lottery ticket is a losing ticket. While the agent will not have all the relevant information available to her—in particular, she hasn't witnessed the lottery drawing itself—she does have quite a lot of information to go on in making her judgement, such as information concerning how the lottery operates, whether it is a fair lottery, and so on. By reflecting on the nature of epistemic risk, and going only on the conception of the nature of the actual world that her information provides her, the subject is in a position to discern that forming this belief on the epistemic basis of reading the result in a reliable newspaper that has procedures in place to ensure that information like this is accurate is a less risky way of gaining a true belief in this proposition than basing this belief solely on the evidence gained by reflecting on the long odds involved. This would thus be a defensible strategy for limiting epistemic risk. Of course, as with risk in general, one's information-relative assessment of epistemic risk might come apart from the actual level of epistemic risk in play, but that wouldn't undermine the legitimacy of the information-relative assessment of epistemic risk so long as it is properly arrived at. The modal account of epistemic risk thus has a straightforward application to contexts in which subjects need to make assessments of epistemic risk relative to a restricted body of information, one that directly mirrors the application of the modal account of risk to information-relative contexts.

4 Applying the modal account of risk to legal contexts

I've outlined both the modal account of risk and its application to epistemology at some length elsewhere.⁹ Our primary interest here is in the application of this account to legal contexts. I will here focus on two, related, applications of the idea, one from the realm of criminal law and one from the realm of civil law.¹⁰ In both cases, as we

⁹ See, especially, Pritchard (2015, 2016).

¹⁰ I develop these points in more detail in Pritchard (2015, 2018b). See also Helmreich and Pritchard (2021) for a third application of the modal account of risk to legal issues.

will see, the probabilistic account of risk generates the wrong result, in contrast to the modal account of risk. The systemic accuracy of our judgements in these legal contexts thus depends on having the correct account of risk in play.

First, consider familiar debates about what we might call the ‘arithmetic’ of criminal justice: just how many wrongful convictions are compatible with a fair criminal justice system? Given that the justice system is a human creation, and thereby fallible, there are bound to be mistakes of this kind, but at what point do these mistakes become so extensive as to be indicative of systemic flaws?¹¹

One might approach this issue in a probabilistic vein, whereby one argues for a certain probabilistic threshold in terms of what magnitude of wrongful convictions is permissible.¹² In effect, however, this issue is one of legal risk—i.e., how low should the legal risk of wrongful conviction be?—and hence to cast the point in such straightforwardly probabilistic terms would be to subscribe to the probabilistic account of risk that we have found problematic. Indeed, that it is problematic in this context becomes clear once one reflects that on this approach it would be acceptable to find defendants guilty on a single evidential basis so long as the evidence in question was probabilistically strong. As we have seen with the lottery cases above, however, that would be consistent with a high level of epistemic risk, in this case in terms of the modal closeness of the epistemic risk not of a false belief but of an incorrect verdict (i.e., wrongful conviction).¹³ In contrast, a legal system that ensures that this epistemic risk event is not modally close, but far-off—such as by demanding corroborating evidence for criminal convictions—will succeed in lowering the level of epistemic risk in the legal system. By applying the modal account of risk to this issue one is thus able to determine what structural features a legal system should have in order to keep the legal risk of wrongful conviction sufficiently low.

The modal account of risk can also help us resolve a certain puzzle about legal evidence that arises in civil cases. The puzzle relates to the fact that it seems inappropriate to deliver a legal judgement of liability in a civil case where the evidence cited is purely statistical. This is puzzling, because non-statistical evidence that is weaker, from a purely probabilistic point of view, can be sufficient to support such a judgement. Relatedly, given that the standards for proof are lower in civil (as opposed to criminal) cases, it’s unclear why strong statistical evidence shouldn’t be sufficient to support a legal judgement in this regard.

Consider, for example, the familiar ‘blue bus’ problem regarding civil liability. Simplifying the case somewhat, imagine that someone has been hit by a bus and that there is purely statistical evidence which indicates to a very high degree of probability—let’s say 90%—that the bus was operated by a certain company (the ‘Blue Bus Company’).

¹¹ For an excellent overview of the issues in this regard, see Laudan (2008).

¹² One can, of course, complicate such a probabilistic approach in various ways. For example, one could refine one’s probabilistic approach in line with the ‘Blackstone Ratio’ such that we want a justice system that is more concerned to avoid wrongful convictions as opposed to wrongful acquittals in line with a pre-determined ratio and hence seek a complex probabilistic threshold that not only keeps the overall proportion of wrongful convictions low, but also understands this threshold in a suitable way relative to the level of wrongful acquittals.

¹³ Note that one could always recast the issue at the level of belief if one prefers—e.g., the judge’s belief regarding which verdict is the correct one—but I take it that it is easier to simply focus on the verdict itself.

For example, nearly all the buses operating in this town, distinctive in their blue livery, are owned by this company. The twist in the tale, however, is that the plaintiff cannot offer any evidence which specifically ties the accident to this particular bus company. She is not in a position to identify the bus herself, for example, nor can she offer any witnesses that might identify the bus for her, or indeed any other evidence that might be relevant in this regard. Accordingly, the case is dismissed, on the grounds that the plaintiff hasn't demonstrated that this particular bus company is the one that caused the accident, even despite the robust statistical evidence that the plaintiff could cite in support of her case.

The case is puzzling since the probabilistic balance of the evidence in favour of a judgement of liability is so strong.¹⁴ Normally evidence this strong would be more than sufficient for a judgement of liability, particularly given the low evidential threshold in operation in civil proceedings. And yet merely statistical evidence of this kind, no matter how strong, seems insufficient to license a liability verdict, even though often weaker evidence, probabilistically construed, would easily suffice.¹⁵

We can explain what is going on here by appealing to the modal account of risk. The target risk event is that of delivering an incorrect verdict attributing liability—specifically, finding the Blue Bus Company liable for the accident when in fact it wasn't one of their buses that was involved.¹⁶ The issue is thus one of epistemic risk, albeit, as before, where the focus is on a verdict rather than a belief. Legal judgements are, of course, always made relative to the evidence that is deemed applicable in that legal context. In terms of the modal account of risk, what we are interested in is having evidential support in support of the verdict that is sufficiently strong as to ensure that the legal risk of an incorrect verdict of liability is low. Relatedly, we want to avoid the situation where that evidential support is compatible with the legal risk of an incorrect verdict of liability being high.

Once we understand that risk is a modal notion in the manner just set out, as opposed to being a straightforwardly probabilistic matter, then we can understand why merely statistical evidence would not be a good basis for a judgement of liability, even when the probabilistic support it offers is very high. The reason is that even despite its

¹⁴ I've previously expressed this point in terms of the 'weight' of evidence in support of the judgement, but Georgi Gardiner has convinced me that 'balance' is a better term, as it accommodates an important point made by Keynes (1921, chapter 6). This is that as one expands one's evidence base for a judgement, then there is at least one sense of evidential 'weight' such that the overall weight of evidence for that judgement has increased, even if one is now less convinced of the judgement (i.e., even if the balance of evidence in favour of that judgement decreases). Of the two notions, it is clearly the balance notion that is in play for our purposes—i.e., the balance of evidence strongly seems to favour a judgement of liability, even if the weight of evidence in the Keynesian sense might not be particularly strong (given that it is purely statistical in nature). For discussion of Keynes' contrast, see O'Donnell (1989, chapter 4) and Joyce (2005, Sect. 3). See also Gardiner (2019), who discusses this point in the specific context of legal evidence.

¹⁵ For some recent discussions of the blue bus problem, see Enoch et al. (2012), Blome-Tillmann (2015), Pardo (2018), Smith (2018), and Littlejohn (2020). See also Tribe (1971), Nesson (1985) and Thomson (1986). This point about the inadequacy of mere statistical evidence is sometimes illustrated by two different examples, that of the 'gatecrasher' and the 'prison yard'. For discussion of the former, see Cohen (1977). For discussion of the latter, see Nesson (1979) and Redmayne (2008).

¹⁶ We could also, of course, consider the legal risk event of the Blue Bus Company not being found liable when their bus was in fact the cause of the accident (just as there is a corresponding legal risk event in the criminal case of a wrongful acquittal), but I take it that in this scenario this is the target risk event.

probabilistic strength, purely statistical evidence leaves the target risk event modally close, and hence is compatible with a high level of legal risk. In contrast, other kinds of evidence, even if lacking in the same levels of probabilistic strength, can nonetheless significantly reduce the level of legal risk. For example, if there were multiple sources of testimonial evidence regarding the incident that implicate the Blue Bus Company in the accident, then that would make the target risk event modally far-off, and thus low risk.

5 Critique of the view: Ebert, Durbach & Smith

Now that we have set out the modal account of risk and its application to the legal case in some detail, let us consider some of the critiques of the view. We will begin with an influential objection pressed by Philip Ebert, Ian Durbach and Martin Smith that they maintain is the fundamental problem facing the modal account of risk, and which specifically concerns its application to decision-making contexts, such as legal contexts. They begin with a statement of the general issue in play:

“Suppose one is about to drill into a wall in a West Australian house built in the 1970s, and is wondering about the risk that the wall contains asbestos. On the modal account, if the wall really does contain asbestos, then the risk is maximally high. In this case, there is a maximally similar world—the actual world—in which the wall contains asbestos. If, on the other hand, the wall does not contain asbestos, then, according to the modal account, the risk will be lower—the closest worlds in which this is true will be somewhat distant from actuality, depending upon further facts of the case. In any event, on the modal account it seems that one cannot make a judgment about the risk that the wall contains asbestos without taking a view as to whether it does contain asbestos.” (Ebert et al., 2020, p. 441)

That is, in order to employ the modal account of risk in assessments of risk Ebert, Durbach and Smith claim that one needs to first determine whether the target risk event is actual. Accordingly, since one often doesn't know whether it is actual (indeed, this is usually precisely why one is making an assessment of risk), so one is stumped when it comes to making the relevant risk assessment. The authors go on to draw this very moral for the legal application of the modal account of risk:

“[...] on the modal account, it seems that one cannot assess the risk that the defendant is innocent without already taking a stand on whether he is innocent or guilty: if he is guilty, the risk is low and if he is innocent the risk is maximally high. This seems to be of little help when it comes to actually making a decision [...]” (Ebert et al., 2020, p. 442)

Thus, according to Ebert, Durbach and Smith, the modal account of legal risk is not so much false as practically useless, as one cannot employ it in a legal context

without first being able to determine what the core facts of the case are, something that is usually precisely what is in question in a legal context.¹⁷

This objection trades on a failure to distinguish between the actual risk in play and what would be an epistemically appropriate assessment of risk relative to a given body of information. Consider first the asbestos case that the authors cite. It is of course true that whether the wall does in fact contain asbestos has an important bearing on whether there is a risk that the wall contains asbestos. In particular, if it does, then the risk is maximally high, in that the risk event is not just modally close but actual. More generally, on the modal account of risk, whether something counts as risky depends on the nature of the actual world, since this in turn determines the relevant modal facts that will dictate whether the target risk event is modally close (and, if so, to what degree).

It does not follow, however, that in order to make judgements about risk we need to first settle all the relevant facts about the actual world that bear on the matter in hand. Instead, as emphasized above, our judgements about risk are often relative to an incomplete body of information. What we are trying to determine, using that body of information, are facts about the modal closeness of the target risk event. If the informational basis is sufficiently comprehensive and sound, then the judgement about risk that is epistemically appropriate given the available information will tend to track the actual level of risk in play. So, for example, if the wall has asbestos, then one would hope to possess strong evidence that this is the case that will inform one's judgement. In this way, it would be epistemically appropriate to judge, relative to the information at one's disposal, that there is a very high risk that the wall contains asbestos, and this will approximate to the actual risk that this is so (which in this case is maximally high).

Of course, it is quite true, as we noted above, that the actual level of risk in play might diverge from what we would reasonably judge this level of risk to be relative to a particular body of information. If one's information that pertains to the question of whether there is asbestos in the wall is rather sketchy, for example, then one could well reasonably come to a judgement about the level of risk in play that significantly diverges from what the actual level of risk is. But that is to be expected in cases where one's informational basis for making judgements about the facts is limited, and hence is hardly something that counts against the modal account of risk. Relatedly, it's also the case that one might not always be able to determine the actual level of risk in play, precisely because one doesn't have access to all the relevant information. But that is not a strike against the modal account of risk either, as it is simply a consequence of the fact that this proposal treats risk as an objective feature of the world. Objective features of the world, after all, have a tendency to be such that they can sometimes come apart from our best judgements about them, and hence any account of risk that treated it as this sort of phenomenon would have this consequence. Accordingly, unless one is willing to argue that risk is not an objective feature of the world, then this can hardly be thought to be an objection to the modal account of risk.

¹⁷ Gardiner (2019, 2020) and Fratantonio (2021) also express versions of this objection. See also Smith (2018, pp. 1204–1205) which raises a related worry of this kind, albeit targeting sensitivity-based conception of legal evidence, such as that put forward by Enoch et al. (2012).

What applies to the risk of drilling into a wall that contains asbestos also applies to legal risk. While it is true that the actual level of epistemic risk in play when it comes to a legal verdict, such as a criminal conviction, will depend on the relevant facts about the actual world, it doesn't follow that one can only employ the modal account of risk in legal contexts by first settling all these facts. As with the application of the modal account of risk more generally, what is required is to distinguish the question of the actual epistemic risk in play and the question of what would be the epistemically appropriate assessment of epistemic risk given one's limited information. In legal contexts where one is actively trying to come to a verdict, one is naturally primarily concerned with the second question. But there is nothing at all mysterious about how the modal account of risk could be used to guide such decision-making. As explained above, in a legal context one needs to draw on one's information in order to gain an informed view about the relevant features of the actual world that bear on the assessment of epistemic risk. In particular, one needs to be alert to how the evidence that is guiding one's judgement might be such as to allow that the target risk event is modally close. In this way, one can make reasonable assessments of legal risk even while some of the facts of the case are not settled (we will consider a scenario that illustrates this point in a moment). It is thus not true, as Ebert, Durbach and Smith contend, that before one is able to employ the modal account of risk in legal decision-making one first needs to settle all the relevant facts. Of course, since such facts are not settled, it is possible that one's reasonable assessment of legal risk will not correspond to the actual level of legal risk in play, but that simply reflects the general point that reasonable information-relative judgements about an objective phenomenon can sometimes be wrong, and that is hardly news.¹⁸

6 Critique of the view: Fratantonio

Other commentators have followed Ebert, Durbach and Smith in treating the general line of objection described above as fatal for the modal account of legal risk. Here, for example, is Giada Fratantonio presenting a version of this critical line:

“Crucially, by defining standards of proof in terms of objective modal risk, Pritchard's account will prescribe rules for risk-management that are not feasible. This is because we often don't have access to the objective features of the actual world, thereby making it difficult to assess the degree of objective similarity between the actual world and a possible world.” (Fratantonio, 2021, Sect. 4.1)

¹⁸ Oddly, after presenting this objection to the modal account of risk, Ebert et al., (2020, pp. 442–443) briefly consider the possibility that the modal account of risk might be best thought of as being concerned with the practical application of this account via evidence-relative judgements. Moreover, they don't raise any objection to this construal of the modal account of risk, even though this is, as we've just noted, precisely how the modal account of risk is meant to be understood. Since Ebert et al. Smith don't offer any other substantive objections to the modal account of risk, it seems that even by their own lights their rejection of this view depends exclusively on an objection that can be dealt with by construing the proposal exactly as it is meant to be construed.

As we have seen, however, this line of argument confuses the question of the actual risk in play with the question of what would be a reasonable risk assessment in a context where one is operating under limited information.

Interestingly, however, Fratantonio goes further than Ebert, Durbach and Smith in presenting this line of argument by actually offering a case that putatively illustrates the challenge that the modal account of risk faces. The case in question is a variant of the blue bus scenario:

“Mr. Brown is run over by a bus on Montgomery Street. He couldn’t see which bus hit him. Hally, a bystander, testifies that she saw a blue bus hitting Mr. Brown. The expected reliability of eyewitness testimony is approximately 70%. The only available evidence is Hally’s eyewitness testimony. There’s no evidence against her reliability. However, unbeknownst to the court and unbeknownst to Hally as well, she’s prone to color hallucination.” (Fratantonio, 2021, Sect. 4.1)

This is how Fratantonio describes the import of this case for the modal account of legal risk:

“Given it is part of Hally’s cognitive architecture that she’s prone to color hallucination, the world in which Hally is mistaken is modally very close to the actual world. If Pritchard’s account were correct, the Blue Bus Company should *not* be found liable in this case. But this doesn’t seem plausible. And just as we don’t have access to the objective features of the actual world, we can’t access the features of close possible worlds either.” (Fratantonio, 2021, Sect. 4.1)

I must confess that I’m rather puzzled by Fratantonio’s startling claim that ‘we don’t have access to the objective features of the actual world’ (which also appears in the previous passage cited), as unless she is presupposing the truth of radical scepticism this seems straightforwardly false, as clearly we do know all kinds of facts about the world around us. Moreover, some of this knowledge of the objective features of the world is presumably available to the court in making their judgements too. Presumably, then, what Fratantonio means is something rather different, which is that we don’t have *complete* knowledge of the world. That is certainly true, and clearly relevant in the context of a court case where the court has to rely on a restricted body of information, often more restricted than the body of knowledge in common on the part of the main actors (e.g., as when certain kinds of evidence, such as regarding past convictions, is deemed inadmissible).

This modified version of Fratantonio’s claim is also applicable to the scenario that she describes, where the court is unaware that Hally is prone to color hallucination. On this interpretation, Fratantonio’s point would be that since the actual epistemic risk in play depends on facts that are unavailable to the court, so the modal account of risk predicts the wrong result. In particular, it predicts, according to Fratantonio, that the court’s judgements should align with the actual epistemic risk in play, even though this depends on facts that are unavailable to the court. If true, that would indeed be a bizarre consequence of the view.

Fortunately, however, as we have seen, this simply isn’t a consequent of the view at all. The application of the modal account of risk to the legal context will clearly be conducted in an information-relative fashion. That is, the court must make a judgement

that minimizes the epistemic risk of finding the Blue Bus Company wrongly liable based on the information that is available to them. That would clearly involve reaching a verdict based on the apparently reliable testimony before them. Now, I'm not so convinced as Fratantonio is that a court would find the Blue Bus Company liable for the accident simply on the basis of a single eyewitness. This is especially so given that this is an eyewitness whose testimony is clearly not scrutinized by the court at all. (After all, if it had been scrutinized, then it would become quickly apparent that Hally had the cognitive defect in question—e.g., if she were asked to identify the bus that she saw). But we can let this pass and grant that the testimony is so impressive that the court is willing to let the entire case depend upon it, and deems it sufficient to find the Blue Bus Company liable for the accident. Insofar as this is a reasonable judgement for the court to reach in that case, then the modal account of luck has no problem explaining why it is reasonable from an anti-risk perspective. Whatever it takes to treat this single item of (unscrutinized) evidence as the entire basis for the verdict should be such as to also make the target risk event of wrongly finding the Blue Bus Company liable to be modally far-off, thus indicating low epistemic risk, *at least from their informational perspective*.

The final clause is crucial, of course, as when we are dealing with risk assessments made under conditions of limited information there may be a mismatch between the level of risk reasonably thought to be play and the actual level of risk. Fratantonio is entirely right that the actual level of epistemic risk at issue in this scenario is in fact quite high, but that is by-the-by, as the court can only make its risk assessment based on the information that is available to it, and by stipulation that doesn't include the considerations that indicate the high risk. According to the modal account of risk as applied to this legal case, it can thus *both* be true that the actual level of epistemic risk is high (such that the Blue Bus Company shouldn't be found liable) and that the epistemically appropriate judgement of the court should be that the level of epistemic risk is low enough to make a liability verdict reasonable. There is no conflict here, just so long as one properly understands what the modal account of risk entails when applied in an information-limited context.¹⁹

7 Critique of the view: Gardiner

A further variant on the general style of objection to the modal account of risk that we have been considering is found in recent work by Georgi Gardiner (2020, Sect.

¹⁹ Fratantonio (2021, Sect. 4.1) does go on to briefly consider the possibility that the application of the modal account of risk in a particular information-relative context might involve appealing to something other than the actual risk in play. Unfortunately, though, the only alternative she considers is what she terms 'subjective modal risk' whereby *whatever* judgement the subject forms regarding the modal closeness of the target risk event on the basis of the information available, even if it is completely irrational, would thereby be an appropriate risk assessment. With that in mind, she gives a variant on the blue bus case where the judge, guided only by prejudice, discounts a witness's testimony and so deems the company to not be liable for the accident. Fratantonio maintains that on the 'subjective' account of modal risk, such a judgement would be entirely appropriate. This is hardly what the application of the modal account of risk to an information-relative context would demand, however. As stressed above, what we are interested in is rather an *epistemically* appropriate response to the limited information available that is concerned with the level of epistemic risk in play.

5). Gardiner contends that this view has the result that one should always ignore misleading evidence. Roughly, this is evidence that suggests p even though not- p . In the blue bus case, for example, this could be false testimonial evidence to the effect that the accident was caused by a bus owned by the Blue Bus Company (even though it wasn't in fact one of their buses that caused the accident). Gardiner claims that such misleading evidence should be ignored according to the modal account of legal risk because a judgement based on this evidence would be more inclined to treat the Blue Bus Company as liable even though it isn't, and thus would raise the risk of there being a false legal judgement of liability (i.e., the target risk event would be modally closer). In contrast, were one to ignore the misleading evidence, then this effect would be avoided. And yet, as Gardiner points out, surely misleading evidence should never be disregarded—one has to take into account the evidence that one has available and make a legal judgement based on it.

Gardiner's objection doesn't stand up to closer scrutiny, and for the same reasons as previous objections we have looked at. First though we should note an ambiguity in the idea that one should always take evidence into account, even misleading evidence. For notice that one should not take misleading evidence into account when one is aware that it is misleading—indeed, in that eventuality it ceases to be evidence at all. If the court is notified that a piece of testimony that suggested liability was a lie, for example, then it would hardly be treated henceforth as evidence in support of a verdict of liability. (It might, of course, now be legal evidence for some other claim, such as that subject's testimony amounts to perjury). It follows that one should only take misleading evidence into account when one is unaware that it is misleading.

With this in mind, however, there is nothing at all amiss in terms of the modal account of legal risk in basing a legal judgement on misleading evidence. As already emphasized, according to the modal account of legal risk the idea is to evaluate legal risk in terms of the relevant body of information at issue in that legal context, and that will inevitably sometimes include misleading evidence (albeit not, thereby, misleading evidence *qua* misleading evidence). Yes, any legal judgement based on such evidence would not track the actual level of risk in play, but that is what is to be expected when the evidence does not accurately reflect the facts of the case (as it is always possible it might). Still, the point is that in making legal judgements we have nothing else to go on but the information available to the court. There's thus no reason why a proponent of the modal account of legal risk should advocate ignoring misleading evidence (except *qua* misleading evidence, but it is true of everyone, and not just proponents of the modal account of legal risk, that evidence of this kind should be ignored).

8 Concluding Remarks

Despite claims to the contrary, we have seen that the modal account of legal risk is not in jeopardy. What we need to bear in mind is how a reasonable epistemic risk assessment in a legal context involving limited information can come apart from the actual levels of epistemic risk that are in play. As I've explained, there is nothing

mysterious about this, but simply reflects the application of the modal account of risk to contexts where one is operating with incomplete information.²⁰

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