

What's Wrong with Risk?

I. Introduction

It is widely assumed that Nathan acts wrongly in the following case:

Drunk Driver. Nathan gets drunk before driving recklessly. Although he has no reason to know it, Chloe is the only pedestrian who is on his route. Nathan significantly increases the risk that Chloe will be injured or killed. In the event, Chloe returns home unscathed and no one is aware that Nathan subjected Chloe to the risk.

One might dismiss the judgment that the *mere* imposition of risk makes the conduct wrong, without the risk resulting in harm. But the intuitive view is that riskers commit wrongs when they cast the dice, not just when they turn up snake eyes.

The judgement that Nathan acts wrongly persists even if Chloe or others are unaware of the risk being imposed on her. Were Chloe aware of the risk, she may become fearful or be compelled to take a longer route home. Were others aware of the risk, they too might become fearful or bear costs to protect her. If Chloe's insurers knew of the risk, they might increase her premiums, making her financially worse off. We can concede that causing these effects can render Nathan's conduct wrongful. The more difficult issue is why Nathan's act is wrongful independently of these effects. We refer to this as the question of *pure risking*.¹

Before proceeding, two clarifications are in order. First, we might think that Nathan acts wrongly because he engages in a general activity that carries a high degree of risk. On this view, he does not wrong anyone in particular. Perhaps his act is impersonally wrong because he violates a principle that forbids unjustified risk-taking. We need not deny that Nathan's conduct may be wrong in this sense. But, as our emphasis on Nathan's interaction with Chloe suggests, we are interested in the wrong that Nathan does *to Chloe*. *Drunk Driver* is not identical to a case in which a person drives recklessly in a completely unpopulated area (unbeknownst to him), as it involves a directed wrong to Chloe. Following others who have addressed the issue, we seek to understand why pure risking can be a *directed* wrong.

¹ Judith Jarvis Thomson, 'Imposing Risks', in *Rights, Restitution, and Risk* (Cambridge, MA.: Harvard University Press, 1986), 173; and John Oberdiek, *Imposing Risk* (Oxford: Oxford University Press, 2017), ch. 3. We use the term 'act' in a broad sense to include both acts and omissions. We also note that questions of pure risking can arise in cases involving intentional and unintentional acts.

Second, we note that pure risking is not always wrong, for example if the risk imposed is small and the benefit of imposing it is great. The views we discuss do not imply otherwise. Rather, they seek to explain only what makes pure risking wrong, when it is wrong, as in *Drunk Driver*. We do not provide any theory delimiting the scope of wrongful risking, although many are available, and our explanation of the wrongness of pure risking is consistent with these theories.²

II. Conceptions of Risk

One complication with our intuitive response to cases of pure risk is that we believe they can involve wrongdoing even though we lack a clear definition of risk. To make progress with this, it helps to draw two distinctions. First, we can distinguish between belief-relative, evidence-relative, and fact-relative conceptions of risk.³ Belief-relative conceptions are a measure of the strength of some belief. Nathan imposes a belief-relative risk on Chloe if he believes that he might harm Chloe whilst drunk. Evidence-relative conceptions are a measure of the weight of the evidence about which an agent ought to be aware. He imposes an evidence-relative risk if he has good evidence that he might harm her and he ought to be aware of this evidence. Both conceptions of risk are subjective in the sense that Nathan's belief, or the belief that he should form on the basis of the available evidence, may be mistaken. By contrast, fact-relative conceptions consider risk to be a fact about the world that is independent of beliefs and of an agent's appraisal of the evidence. Nathan imposes a fact-relative risk on Chloe if, as a matter of fact, there is a chance that he will harm Chloe if he drives whilst drunk. The existence of this risk is determined by facts that are independent of Nathan's beliefs and the available evidence.

It bears emphasising that the evidence-relative conception of risk encapsulates a normative standard. It refers to judgements an agent should make about risk were she aware of the evidence of which she *should* be aware. We leave unspecified the precise scope of an individual's duty to familiarise herself with relevant evidence. There are many hard cases, some involving specialists who have a duty to have more in-depth knowledge and some involving ordinary people, that will fall on the boundary. Since we are interested in the question of pure risking, we will leave this issue to one side and focus on cases, like *Drunk Driving*, where an individual should be aware of the relevant evidence on any plausible view of this duty.

Let's now turn to the second distinction, which is between those fact-relative conceptions of risk that are consistent with determinism and those that are not.

² Johann Frick, 'Contractualism and Social Risk', *Philosophy & Public Affairs*, 43 (2015), 175-223; and Rahul Kumar, 'Risking and Wronging', *Philosophy & Public Affairs*, 43 (2015), 27-51.

³ Derek Parfit, *On What Matters Volume One* (Oxford: Oxford University Press, 2011), 150-151.

As an example, we can consider relative frequency theory, which defines risk in terms of the proportion of the events in a reference class that has the relevant property. The relative frequency of a coin landing on heads is approximately 50% since, given a stipulated reference class such as ‘normal coin flips’, about half of such flips will land on heads. This account is fact-relative in the sense that facts about relative frequencies are true or false independently of individuals’ beliefs or the available evidence. Facts about risk could be true even if there is *no* evidence to support them. Nevertheless, this account is consistent with determinism since, if the underlying causal processes are deterministic, then it is theoretically possible to predict, of each individual coin flip, whether it will land heads or tails.⁴ By contrast, some conceptions of fact-relative risk rely on indeterministic causal processes. This is the case with those conceptions that refer to risk from the perspective of a perfect predictor with all relevant information.⁵ Owing to the stochastic processes involved, it may be impossible to know, *even in principle*, when a given radioactive atom will decay.⁶ Conceptions of fact-relative risk that refer exclusively to risks of this kind are inconsistent with determinism since, if determinism were true, the perfect predictor would be able to predict when a given atom will decay if she had access to all relevant information.⁷

We draw attention to these complications not only because they help us better understand the subject of our inquiry, but also because we later draw upon these distinctions to evaluate competing accounts of the wrongness of pure risking. Next, we introduce two accounts – *The Harm Account* and *The Autonomy Account* – which share two common weaknesses. Our criticisms provide the basis for a defence of an alternative view, which we call *The Buck-Passing Account*.

III. Two Accounts

The Harm Account holds that pure risking is wrong, when it is, because risks are harms. Thus, Nathan wrongs Chloe because he harms her, even though the risk does not materialise into injury and no one other than Nathan is aware of the risk. One way to support this conclusion is to appeal to a symmetry between harms and benefits. Some believe that it is beneficial to receive a lottery ticket –

⁴ Stephen Perry, ‘Risk, Harm, and Responsibility’ in David G. Owen (ed.), *Philosophical Foundations of Tort Law* (Oxford: Oxford University Press, 2001), ch. 14.

⁵ What makes this predictor perfect is that she is able accurately to predict everything that can be predicted given determinism. She is not able to predict the outcome of indeterministic causal processes.

⁶ Oberdiek, *Imposing Risk*, 18.

⁷ This conception of risk is a version of a relative frequency theory, one where the reference class is defined as precisely as possible (e.g. coins flipped with given force at a given angle etc.). If determinism is true, then we can define the reference class in such a way that the perfect predictor will know that the relative frequency of *these* coin flips landing on heads is either 0 or 1. With this conception, risk therefore arises only if determinism is false, since it is only then that the perfect predictor will not be able accurately to predict the outcome.

even a losing one – as it yields a chance of financial reward, so just as an agent’s increased chance of receiving a benefit is itself a benefit, an agent’s increased chance of suffering a harm is itself a harm.⁸

To make sense of this view, we must specify a metric of harm and show its appropriateness for risk-based harms. The metric of harm is the good or goods setback to which constitutes harm. A variety of metrics are available to defenders of *The Harm Account*. One view about the metric of harm is that an individual is harmed if her preferences are frustrated. In *Drunk Driver*, Chloe is harmed on this view if her preference not to be subject to risk is frustrated by Nathan.⁹ Alternatively, Chloe may be harmed by a setback to objectively valuable goods regardless of her attitude towards them. For example, if dignity is objectively valuable, Nathan’s drunk driving may harm Chloe by interfering with her dignity interests.¹⁰

John Oberdiek has recently developed an alternative to *The Harm Account*. *The Autonomy Account* holds that pure risking is wrong because ‘it effectively attaches sanctions to or normatively forecloses certain options that would otherwise be available to the individual, thereby narrowing the risked person’s set of worthwhile opportunities’.¹¹ In *Drunk Driver*, Nathan effectively forecloses some of Chloe’s options, since there are now some paths that Chloe cannot take without physical injury. Oberdiek clarifies his view by comparing pure risks and laying traps:

Laying a trap in itself materially affects no one, but it can nevertheless impinge upon a person’s non-material autonomy interest. This is because the trap takes away the option, or more accurately renders unacceptable the exercise of the option, of stepping where the trap has been set.¹²

The Harm Account and *The Autonomy Account* each has its advantages. Although the metaphysics of harm is hotly contested,¹³ at least some metrics of harm (such as preferences) allow that risks can be harmful. Like *The Harm Account*, *The Autonomy Account* appeals to a factor of central moral interest. As the trap analogy

⁸ Claire Finkelstein, ‘Is Risk A Harm?’, *University of Pennsylvania Law Review*, 151 (2003), 963–1001, 967.

⁹ Finkelstein, ‘Is Risk A Harm?’.

¹⁰ Adriana Placani, ‘When the Risk of Harm Harms’, *Law and Philosophy*, 36 (2017), 77–100.

¹¹ Oberdiek, *Imposing Risk*, 85.

¹² Oberdiek, *Imposing Risk*, 86.

¹³ Seana Shiffrin, ‘Wrongful Life, Procreative Responsibility, and the Significance of Harm’, *Legal Theory*, 5 (1999), 117-148; Stephen Perry, ‘Harm, History and Counterfactuals’, *San Diego Law Review*, 40 (2003), 1283-1313; David Velleman, ‘Persons in Prospect’, *Philosophy & Public Affairs*, 36 (2008), 221-288; and Derek Parfit, *Reasons and Persons* (Oxford: Oxford University Press, 1984), 69–70.

reveals, it is *prima facie* plausible that removing options limits autonomy, even if those options would never have been taken.¹⁴

IV. The Separation Objection

The Separation Objection holds that it is a mistake to separate whatever makes an act wrong from whatever makes risking that act wrong. The intuitive plausibility of this objection does not depend on any particular account of the facts that ground moral wrongness. It holds regardless of whether the wrongness of the risked act is based on harm, autonomy, impersonal value, or any other wrong-making property. This suggests that there is a close relationship between the factors that make an act wrong and the factors that make risking that act wrong. *The Harm Account* and *The Autonomy Account* fail to recognise this relationship and implausibly separate the grounds of the wrongness of risking ν from the grounds of the wrongness of ν -ing.

As a result, both accounts have implausible implications in cases where the wrongness of the risked act is not explained by harm or autonomy-interference. Whilst harm and interference with autonomy explain the wrongness of many actions, they do not provide an exhaustive list of factors that affect permissibility. Though controversial, there are compelling reasons to think that the intentions with which an agent acts can affect permissibility. To illustrate this criticism, let's consider the following two cases:¹⁵

Duress: Andre is threatened that unless he robs a post office his family will be killed. Andre robs the post office.

Overdetermination: Irina and Emma both wish to poison Rosaria. Two doses together will kill Rosaria quickly whilst one dose will give her a painful death. Irina doses Rosaria. Knowing that Irina has done so, Emma doses Rosaria and in doing so prevents her from having a painful death.

In *Duress*, the fact that Andre has access to a reason that would justify robbing the post office does not make this act permissible if he commits the robbery because he enjoys the thrill of crime.¹⁶ In *Overdetermination*, if Emma's intention is to kill

¹⁴ We acknowledge that the meaning and value of autonomy is highly controversial. For discussion, see Joseph Raz, *The Morality of Freedom* (Oxford: Clarendon Press, 1986), chs 14 and 15.

¹⁵ See Victor Tadros, *The Ends of Harm: The Moral Foundations of Criminal Law* (Oxford: Oxford University Press, 2011), ch. 7; and Adam Slavny and Tom Parr, 'Harmless Discrimination', *Legal Theory*, 21 (2016), 100 – 114.

¹⁶ Some believe that duress can be an excuse for wrongdoing but never a justification. We reject this for reasons given by Victor Tadros in 'Duress and Duty' in Saba Bazargan and Samuel Rickless (eds.), *The Ethics of War: Essays* (Oxford: Oxford University Press, 2017), ch. 5.

Rosaria because she is her enemy, she does not act permissibly. Conversely, Emma acts permissibly if she doses Rosaria to avert a painful death. We might say that, if Andre and Emma act with the wrong intentions, their acts are *justifiable* but not *justified*. These examples do not settle the issue, though we hope they indicate that denying the relevance of intentions to permissibility is counterintuitive. In any case, this is one example of a wrong-making property distinct from harm and autonomy-interference, and there are others, such as setback to impersonal value.¹⁷

If correct, there must be cases in which P wrongfully imposes a risk of ν -ing and ν 's wrongness is not explained by either harm or autonomy-interference. Let's consider a variation of *Overdetermination* in which, for no good reason, Emma flips a coin to determine whether she will poison Rosaria: if tails, she will leave Rosaria alone; if heads, she will form and act on the intention to kill Rosaria. It is difficult to see why, if the wrongness of poisoning Rosaria is explained by Emma's intentions in *Overdetermination*, we should appeal to a different factor to explain the wrongness of imposing a risk of poisoning Rosaria. We cannot explain the wrongness of flipping the coin by appealing to Rosaria's intention. She forms and acts on this intention only if the coin lands on heads, but intuitively she imposes a wrongful risk before that point, when she flips the coin. *The Harm Account* and *The Autonomy Account* are too narrow and thus fail to explain the wrongness of Emma's actions in this variation.

It might be objected that Emma's act is not wrong because she imposes a risk, but because she takes it upon herself to determine whether Rosario lives or dies. This is an intuitive explanation of the wrongness of Emma's act, but it does not undermine our main point. It is unclear whether the objection identifies a distinct wrong-making factor. On one reading, taking another's fate into one's own hands refers to either intentional killing or imposing a risk of intentional killing. On another reading, taking another's fate into one's own hands excludes intentional killing and refers only to taking a chance with someone else's life. But, if this is the case, then all we have is a redescription of the phenomenon of risking, and the fact that Emma takes it upon herself to determine whether Rosario lives or dies cannot function as an independent factor that explains the wrongness of the risk. Finally, perhaps what explains the wrong is the badness of Emma's intentions when she imposes this risk. If so, this is not necessary for the risk to be wrong. If we imagine that Emma acts out of indecision (rather than a desire to control the fate of another), the intuition that her act is wrongful persists. This brings us back to the central point, namely that there is a plurality of wrong-making factors that we must incorporate into an account of the wrongness of pure risks, since there is a plurality of wrong-making factors that affect that

¹⁷ Victor Tadros, *Wrongs and Crimes* (Oxford: Oxford University Press, 2016), ch. 15.

wrongness of actions generally. These difficulties for *The Harm Account* and *The Autonomy Account* reflect the close relationship between the grounds of the wrongness of risking ν and the grounds of the wrongness of ν -ing, a relationship that both accounts ignore.

To illustrate the objection more formally: let some set of facts $\{f\}$ ground the wrongness of some non-risk-based act ν . Let a person P take a significant risk of ν -ing for no good reason. We have powerful reasons to conclude that P has acted wrongly, without knowing anything more about what is in $\{f\}$. For example, if its being contrary to god's will makes ν -ing wrong, it is wrong to risk ν -ing, because doing so risks doing something contrary to god's will. Any account of the wrongness of pure risking should be able to explain this general relationship between wrongness in non-risking cases and the wrong of risking. By focussing on substantive wrong-making properties, *The Harm Account* and *The Autonomy Account* fail to do this.

V. The Determinism Objection

The second objection is *The Determinism Objection*. It holds that *The Harm Account* and *The Autonomy Account* can explain the wrongness of only those risks that are inconsistent with determinism. To develop this objection, we return to *Drunk Driver*. It is intuitive that Nathan subjects Chloe to a risk, but if determinism is true, there is a sense in which this intuition is misleading. Nathan imposes an evidence-relative risk on Chloe since, from Nathan's position, he has good evidence that his drink-driving may injure Chloe. Fact-relative, it is also true that Nathan increases the risk to Chloe in terms of relative frequency. Given a suitable reference class, such as instances of drink-driving, more of these instances result in injury to pedestrians compared to a similar class of driving events that do not involve driving whilst drunk. But this is consistent with the idea that any instance of drink-driving either will or will not result in injury, given determinism. With full information, we could in principle predict whether Nathan will or will not injure Chloe. If this is true, then *Drunk Driver* is relevantly similar to the following case:

Drunk Driver 2: Same as *Drunk Driver*, except Chloe stays at home whilst Nathan drink-drives.

If determinism is true, then in both cases, it is a fact that Chloe will not be injured, despite our intuitive sense that Chloe is in greater danger in *Drunk Driver* than in *Drunk Driver 2*. The salient difference is in terms of the evidence-relative risk that Nathan imposes on Chloe. In the original case, the evidence available to Nathan (misleadingly) supports the judgment that there is a chance that he will hit Chloe. In the revised case, the evidence available to Nathan (correctly) supports the reverse judgment, namely that there is no chance that he will hit

Chloe. The difference between these cases therefore consists in what judgment the evidence available to Nathan supports.

This analysis helps to reveal a flaw in *The Harm Account* and *The Autonomy Account*. Both views explain the wrongness of pure risks by referring to the *effects* of a risk on the victim: *The Harm Account* emphasizes the harmfulness of these effects, and *The Autonomy Account* emphasizes how these effects impinge autonomy interests. But many pure risks do not affect their victims, and instead exist only in the mind of the risk-taker. Let's consider another variation of *Drunk Driver* in which Chloe knows that she will not be injured. It is still wrong for Nathan to impose an evidence-relative risk of harming Chloe even though it is a fact (known to Chloe but unknown to Nathan) that she will not be injured. However, it is hard to see how Nathan having evidence that he might harm Chloe harms or interferes with her autonomy when Chloe knows otherwise. It is more plausible that Chloe is harmed or autonomy-impeded where *she* has evidence about the possibility of being harmed or having her autonomy interfered with compared to when Nathan has such evidence. But the wrongness of risking is surely located in Nathan's evidence, not Chloe's. Given this, we should not attempt to explain the wrongness of pure risks by referring to their effects, as per *The Harm Account* and *The Autonomy Account*.

For these reasons, it is not plausible that belief- or evidence-relative risks count as harms, contra *The Harm Account*. The existence of evidence, especially when the victim is unaware of it, does not represent a chance of suffering a burden by itself. Thus, receiving a lottery ticket that will not win is relevantly similar to receiving a fraudulent lottery ticket. Neither ticket will win, given that determinism is true. If we accept that a fraudulent ticket is not a benefit, the same goes for the genuine ticket as well.

The Autonomy Account is vulnerable to a similar line of reasoning. It will presumably be accepted by supporters of this account that a trap placed on Mars poses no threat to autonomy by removing a possible option. But this case is relevantly similar to a case in which a trap is placed within walking distance if it is determined that a person will not fall victim to it. So, as before, if we accept that the trap on Mars does not affect autonomy, we should conclude that a nearby trap does not do so either.¹⁸

The Determinism Objection poses two significant problems for both accounts. First, these accounts can be motivated only if the cases we are trying to explain involve

¹⁸ A related problem for *The Autonomy Account* is that it can have difficulty explaining the greater wrongfulness of imposing higher risks. For example, it is worse to lay a fully reliable trap than it is to lay one that functions only 90% of the time. However, since both traps effectively foreclose the same option – namely, stepping where the trap is set – they would seem to impinge on autonomy to the same degree. We thank Doug Husak for discussion of this point.

genuinely indeterministic risks. We do not deny that such risks may exist, but it is a limitation of any view about the wrongness of risking to rely on this assumption. Second, even granting that indeterministic risks exist, they will not account for all – or even the majority – of cases of wrongful pure risking. In *Drunk Driver*, Nathan acts wrongly regardless of whether the risk is indeterministic. Nathan acts wrongly even if the risk he imposes on Chloe involves no indeterminacy because it is belief- or evidence-relative or fact-relative in terms of relative frequency.

VI. The Buck-Passing Account

Based on the previous analysis, there are two constraints on any explanation of why pure risks can be wrong. The first, following *The Separation Objection*, is that any view must account for the general relationship between the grounds of the wrongness of risking ν and the grounds of the wrongness of ν -ing. The second, following *The Determinism Objection*, is that any view must be able to explain the wrongness of risks in a deterministic world. Accordingly, our view should not be solely focussed on the effects of a risk on its victim.

We defend an alternative:

The Buck-Passing Account.¹⁹ When it is wrong for P to impose a risk of ν -ing on Q, the fact that it is wrong for P to risk ν -ing is grounded directly in the fact that P increases the probability of a set of facts {f} obtaining that would make it wrong for P to ν .

This account is basic in the sense that it does not explain the wrongness of pure risks by referring to independent normative considerations. Instead, it passes the explanatory buck by referring to the wrongness of the risked act. For example, in *Drunk Driver*, we explain Nathan's wrong by direct appeal to the wrongness of harming Chloe.

This basic explanation incorporates a wider range of wrong-making factors than harm. In cases where an act is wrong because of an agent's intentions, we also explain the wrongness of risking these acts with reference to these intentions. In *Overdetermination*, if we appeal to Emma's intentions to explain why it is wrong to poison Rosaria, then we should similarly appeal to Emma's intentions to explain why it is wrong for her to flip a coin to decide whether to poison Rosaria. *The Buck-Passing Account* thus overcomes *The Separation Objection*.

¹⁹ We take this name from T. M. Scanlon's discussion of goodness and value. See his *What We Owe to Each Other* (Cambridge, MA.: Harvard University Press, 1998), 97. Although we adopt this terminology, we do not assume the truth of Scanlon's view.

Moreover, since our view is not effect-focussed, it can explain the wrongness of risks in a deterministic world. We explain the difference between *Drunk Driver* and *Drunk Driver 2* by appealing to the fact that the evidence-relative risk imposed by Nathan is much greater in the former case, since the evidence available suggests that he is more likely to cause injury. *The Buck-Passing Account* thus overcomes *The Determinism Objection*.

In summary, when explaining the wrongness of risking, our task is to ‘determine whether there are any normative reasons that can make risky action as such impermissible’.²⁰ While there are such reasons, it is a mistake to think that these are substantively different to those that make the risked act wrong. *The Separation Objection* hints at the truth of *The Buck-Passing Account* since, if it is valid, then the correct view of wrongful risking must incorporate *exactly* the factors that can make risked acts wrong.

Throughout, we have assumed that our intuitive response to *Drunk Driver* is correct: that Nathan acts wrongfully by imposing a risk on Chloe. A final objection to the views outlined in this paper, including *The Buck-Passing Account*, denies this starting assumption. According to this objection, we can conclude only that riskers are potentially blameworthy, but not that they act impermissibly.²¹ In *Drunk Driver*, we might think that Nathan merely exhibits bad character. If we knew in advance that Nathan would not harm Chloe, we might be more receptive to the idea that, although Nathan is blameworthy because he has reason to believe he will act wrongly, he will not in fact act wrongly.

This objection assumes that, to be impermissible, an act must have an effect on the victim, and it rejects the idea that intentions or other features of an agent’s deliberation can affect moral permissibility. As a general claim, this is questionable. We have already given examples suggesting that intentions can affect the permissibility of actions. There is plenty more to say on this debate, but we will not rehearse the arguments here since they are adequately dealt with elsewhere.²²

Furthermore, *The Buck-Passing Account* does not rely on any feature of an agent’s deliberation to hold that evidence-relative risking is wrong. For example, let’s suppose that some act is wrong only because it causes harm. Our account suggests that increasing the evidence-relative likelihood of committing this act may itself be wrong in virtue of the same fact. We derive the conclusion that the risk may be wrong from the fact that the risked act is wrong. As noted, we argue

²⁰ Oberdiek, *Imposing Risk*, 74.

²¹ For this objection, see Oberdiek, *Imposing Risk*, 89-90.

²² See Tadros, *The Ends of Harm*, ch. 7; Slavny and Parr, ‘Harmless Discrimination’; and Tom Parr, ‘Revisiting Harmless Discrimination’, *Philosophia* (Online First).

that *The Buck-Passing Account* relies on a basic normative fact and therefore it is difficult to defend through independent argument. However, it is worth noting that the above objection does not bite against our view, since we do not appeal directly to the wrong-making status of intentions to explain the wrongness of pure risking, even though this is consistent with intentions having this status.²³

²³ For helpful comments on this paper and the ideas we discuss in it, we thank Clare Burgum, Matthew Clayton, Johann Frick, Doug Husak, Rahul Kumar, Hugh Lazenby, Kian Mintz-Woo, John Oberdiek, Victor Tadros, and Kartik Upadhyaya, as well as audiences at a workshop on John Oberdiek's *Imposing Risk* at the University of Warwick and at a workshop on 'Justice and Risk' at Nuffield College, University of Oxford, organised by Jess Begon and Alice Baderin.