Journal of Ethics and Social Philosophy
VOL. 26, NO. 1 · NOVEMBER 2023
https://doi.org/10.26556/jesp.v26i1.2190

FAIRNESS AND CHANCE IN DIACHRONIC LOTTERIES

A RESPONSE TO VONG

Marie Kerguelen Feldblyum Le Blevennec

One influential view concerning the fairest way to distribute scarce or indivisible goods, especially between people in an equal or roughly equal situation, is that such goods should be distributed through a lottery.[1] In this paper, I focus on a debate about the way lotteries ought to be run in order to be fair. John Broome's synchronic account of lotteries has been criticized by Gerard Vong for being unfair in temporally extended cases. Vong holds that in order to be fair, even in such cases, lotteries must be diachronic rather than synchronic, and he offers his own account of how diachronic lotteries ought to be run. I will show that although Vong's diachronic account of lotteries is more plausible than Broome's original synchronic account, Vong's reply to a subsequent objection by Broome is implausible. This suggests that Vong's diachronic account must be modified in light of Broome's objection in order to treat all claimants fairly in temporally extended cases. I conclude by proposing one way to modify Vong's account to this effect.

Broome's account of lotteries for scarce or indivisible benefits focuses on giving claimants an equal chance to win a particular lottery at a single moment, which makes his account *synchronic*. Against Broome, Vong argues that synchronic lotteries are unfair because in temporally extended cases (during which new claimants can appear or the availability of goods can change), morally irrelevant factors can influence one's chances of winning a synchronic lottery. To illustrate this, Vong gives an example called Stormy Seas.[2] Two sailors, *A* and *B*, fall into the ocean during a storm, and only one can be saved because there is only one buoy on the ship. In order to determine in a fair way who will get the buoy, a lottery is run, and sailor *B* wins. Then, just before the buoy is thrown

1 See, e.g., Broome, "Uncertainty and Fairness," 627–28, and "Fairness," 87; Burgers, "Perspective on the Fairness of Lotteries," 209–15; Sher, "What Makes a Lottery Fair?," 203.

2 Vong, "Fairness, Benefiting by Lottery," 473.

to *B*, two other sailors, *C* and *D*, also fall into the water. Vong claims that on Broome's synchronic account of lotteries, another lottery would then have to be run between *B*, *C*, and *D*, with each having an equal chance to win.[3] According to Vong, Broome's account of lotteries is *procedurally* unfair in temporally extended cases like Stormy Seas because there are significant differences in the chance each claimant has to benefit, despite there being no morally relevant factors in the situation to justify this difference. In Stormy Seas, Broome's account would give *A* and *B* each a one-sixth chance of winning the buoy, whereas *C* and *D*, who fall into the water later and only participate in the second lottery, would each get a one-third chance of winning. As Vong correctly points out, this means that a major factor influencing one's chances of winning in the Broome version of Stormy Seas is *how late one falls into the water*, which is clearly morally irrelevant. So, although Broome's account provides all the sailors with an equal chance of winning *each* lottery, it does not provide them with an equal chance of winning the benefit precisely because his account is synchronic.[4]

To avoid this unfair allotment of chances, Vong suggests moving to a *diachronic* account of lotteries, which he calls the dual structure view.[5] He begins by distinguishing between *benefit* and *procedural* claims.[6] When someone loses

3 On Broome's account, *A* is not included in the second lottery because *A* has lost his claim to the buoy by participating in the first lottery (which he loses against *B*) and getting surrogate satisfaction for his claim. A claim is surrogately satisfied when the individual holding it had the chance to benefit from the good by participating in a fair distribution procedure for that good; see Broome, "Fairness," 98.

4 Here, it is assumed that what makes a procedure fair is that it provides an equal chance of *benefiting from the good* to all participants, not merely that it gives an equal chance of winning a particular lottery. Winning a particular lottery is not what matters here; what is at stake is the *distribution* of the specific good. This is why, for Vong, temporally extended cases such as Stormy Seas show that "Broome's synchronic view of claim satisfaction by lottery undermines his view of fairness [according to which each individual should have an equal chance of benefiting] in temporally extended cases such as Stormy Seas" (Vong, "Lottery," 477).

5 See Vong, "Lottery," 471, 479. There are numerous possible diachronic accounts of lotteries (for example, "diachronic weakening" or "diachronic strengthening"—see Vong, "Lottery," 478). However, here I will focus on Vong's dual structure view, which seems to me to be more plausible than the other diachronic accounts he mentions. Explaining why in detail is beyond the scope of this paper. For more details about why the other diachronic accounts Vong mentions are not as plausible as Vong's dual structure view, see his discussion of the other diachronic accounts ("Lottery," 477–79).

6 Procedural claims are one's claims "not to be treated inappropriately, . . . which is a matter of procedural *ex ante* fairness. . . . It is these *procedural* claims that are satisfied by a lottery that gives claimants appropriate, fair chances of benefiting" (Vong, "Lottery," 479). In contrast, *benefit* claims "are satisfied, *ex post*, when the benefits are actually distributed" and "cannot be lost due to the results of a procedurally fair lottery" (479–80).

a particular lottery, he may have his procedural claim satisfied, but he does not lose his *benefit* claim and so should be included in any new lottery where that benefit can be won. Next, Vong claims that once *C* and *D* fall into the water after the first lottery between *A* and *B*, the results of that first lottery should be ignored. This is because the procedure according to which it was run can no longer be considered fair once *C* and *D* are in the water—there are now new claimants, rendering the first lottery no longer procedurally fair.[7] According to Vong, *A* should be included in the second lottery between *B*, *C*, and *D*, as *A* did not lose his *benefit claim*. Moreover, since all the sailors have a benefit claim, each should have an equal chance of winning this second lottery so that their procedural claims are respected. This would ensure that each sailor has an equal *overall* chance to benefit from the good and that the diachronic lottery is fair.[8]

Table 1. Stormy Seas

	Chances to Win	
Lottery	Vong's Account	Broome's Account
Lottery 1 (t_1)	*A* = 50% *B* = 50%	*A* = 50% *B* = 50%
Lottery 1 Result	*B* wins	*B* wins
Lottery 2 (t_2)	*A* = 25% at t_2 (¼ chance overall) *B* = 25% at t_2 (¼ chance overall) *C* = 25% at t_2 (¼ chance overall) *D* = 25% at t_2 (¼ chance overall)	*A* = 0% at t_2 (⅙ chance overall) *B* = 33% at t_2 (⅙ chance overall) *C* = 33% at t_2 (⅓ chance overall) *D* = 33% at t_2 (⅓ chance overall)

Note: "Overall" = across t_1 and t_2.

At first glance, Vong's diachronic dual-structure view of lotteries seems fairer than Broome's synchronic account, as on Vong's view, each sailor has an equal *overall* chance of getting the buoy. However, Broome has voiced a worry about Vong's account. For Broome, the fact that *B* does not have his win of Lottery 1 taken into account in Lottery 2 is problematic.[9] It seems *B* could *justifiably* complain that it is unfair that his victory in Lottery 1 is not recognized, especially if *A* is included in Lottery 2 despite losing in Lottery 1 (as Vong claims *A* should be) and then ends up winning Lottery 2.[10] The upshot is that Vong's diachronic

7 See Vong, "Lottery," 483.

8 Note that, unlike Vong, Broome does not distinguish between benefit claims and procedural claims when he uses the term "claim."

9 See Vong, "Lottery," 481.

10 See Vong, "Lottery," 481.

account of lotteries seems unfair because it does not give *any* recognition to winners of lotteries prior to the final lottery.

To see why Broome finds this unintuitive, consider the following case. Sailors *A* and *B* fall overboard, and a lottery is run to decide who gets the only buoy on board the ship. *B* wins the first lottery against *A*, but then before *B* gets the buoy, *C* and *D* fall into the water. A new lottery is run according to Vong's view so that *A* is included despite losing the first lottery, and *A* wins the second lottery. It seems natural that *B* would be upset that *A* gets the buoy instead of himself. In fact, we can imagine a scenario in which *B* wins every lottery, but after each win, new claimants join the lottery process (i.e., more sailors fall into the water), so a new lottery is run. *B* then loses the final lottery. In such a scenario, *B* could have won several lotteries and lost only one, but because the lottery he loses happens to be the one after which no new claimants appear, he does not get the good (and potentially dies).[11]

Vong's response to this worry is to deny that in diachronic lotteries, a winner of a previous round has any special claim in a subsequent round. To show why, Vong provides an example: the Defective Extra Buoy case (DEB).[12] In DEB, two sailors, *A* and *B*, fall into the water, and the only buoy available is defective—it can save one of the sailors but will cause him considerably more stress in the process than a normal buoy would. A lottery is run to determine who will get this defective buoy, which *B* wins. However, before the buoy is thrown to *B*, the captain discovers an extra, non-defective, normal buoy on board the ship. The captain throws the regular buoy to *B* and the defective buoy to *A*.

Vong argues that for *B* to justifiably complain in such a scenario, his complaint has to concern his not receiving *specifically* what he won in the earlier lottery—namely, the defective buoy; *B*'s complaint would be that his claim to a *specific benefit* was not respected. Vong calls the notion that *B* has "a claim not just on the general benefit of having their life saved, but on the specific benefit of having their life saved by the first buoy" the "specific benefits view."[13] Vong rejects the specific benefits view because it seems intuitively absurd for *B* to complain about not getting the specific buoy he won (the defective buoy). Vong's intuition is that *B*'s benefit claim is satisfied simply by being saved, not

11 The same applies to an extended version of Stormy Seas, in which a large ship gets caught in a storm; two sailors are washed overboard, but every time the captain runs a lottery, more sailors fall into the water before he distributes the benefit. On Vong's view, a sailor who wins every lottery except one could end up dying simply because the lottery he loses happens to be the one after which no new claimants appear.

12 See Vong, "Lottery," 481–82.

13 Vong, "Lottery," 474–75.

by getting a specific buoy.[14] Since it would be absurd for *B* to complain, Vong concludes that *B* actually does not have a legitimate complaint if his win of a previous lottery is not recognized in subsequent lotteries.

However, it seems to me that Vong's DEB example does not convincingly support his argument that the winner of a fair lottery lacks grounds for a legitimate complaint if his previous win is not taken into account in a subsequent lottery. This is because DEB ignores a crucial difference between two types of reasons to complain.

When someone complains, we can distinguish two types of reasons for their complaint: (i) *claim-based* reasons to complain and (ii) *normative* reasons to complain in general. Claim-based reasons to complain are one kind of legitimate reason to complain, which are directly relevant to an agent's claim on a particular benefit in virtue of which the agent's complaint would be fitting. In contrast, normative reasons to complain in general are simply those reasons on the basis of which it is worth complaining at a given moment, regardless of whether the complaint is legitimate and fitting in terms of a genuine claim that one is owed something. One example of a normative reason to complain that is not a claim-based reason to complain is that complaining in a given situation would be in one's self-interest (regardless of what claims one happens to have in the situation). For example, in a case where only *A* and *B* are drowning, and *B* wins a fair lottery, *A* might still have other *normative* reasons to complain out of self-interest in order to try to convince the ship captain to throw him the buoy so that he can survive, even if *A* has no *claim-based* reasons to complain because *A* lost a fair lottery.

The important point here is that claim-based reasons to complain and other normative reasons to complain sometimes come apart. That is, claim-based reasons to complain are *one kind* of normative reason to complain, which means that one can be rationally motivated to complain even when one lacks a claim-based reason to complain. Moreover, claim-based reasons to complain can be outweighed by other normative reasons to complain. This means that one can be rationally motivated *not* to complain even when one has a claim-based reason to complain because one's claim-based reason is outweighed by one's other normative reasons regarding the option of complaining.[15]

14 See Vong, "Lottery," 475.

15 Of course, sometimes people are motivated to complain by factors that are not normative reasons at all—for instance, if someone is delusional or suffering from *akrasia*. However, when I talk about normative *reasons* to complain, I am talking about factors that it would intuitively be reasonable to take as genuine reasons worth complaining on the basis of. My goal here is just to distinguish the narrow category of claim-based reasons to complain from this broader category of normative reasons to complain.

Once we apply this distinction between claim-based and normative reasons to complain to DEB, Vong's response to Broome's objection becomes less convincing. In DEB, the reason *B* does not complain is not necessarily because he lacks claim-based reasons to do so, as Vong contends. In fact, it seems more plausible to say that *B* does not complain simply because he knows that he will be better off with the normal buoy than with the defective one. *B*'s normative reason not to complain outweighs his claim-based reason to complain, so he does not complain.

To see that this explanation is more plausible, imagine a reversed scenario in which *B* wins a regular buoy in the lottery but is instead given an extra, defective buoy. Intuitively, in such a scenario, it would not seem absurd for *B* to complain. Rather, it seems plausible that once *B* is back on board, stressed and gasping for breath after having barely been saved by the defective buoy while *A* stands calmly after having been smoothly rescued with the regular buoy, *B* might justifiably complain about having received the defective buoy instead of the regular buoy he won, despite having had his life saved. It is not absurd to imagine *B* asking: "Why didn't you throw me the buoy I won? Why did you give it to *A* instead?" That is, in this reversed scenario, it does not seem absurd for *B* to appeal to a claims-based reason to justify his complaint about not receiving the specific benefit he won, despite having received the general benefit of having his life saved.

This intuition seems easy to explain if we accept Broome's suggestion, on which *B* has a *specific* claim on the regular buoy due to his lottery win.[16] In contrast, for Vong to be able to explain this intuition about the reversed case while maintaining that *B* lacks a claims-based reason to complain in DEB, it would have to be the case that whether the buoy *B* complains about is regular or defective is a morally relevant factor, since that is the only difference between DEB and the reversed case that could explain the difference in the legitimacy and fittingness of *B*'s complaint in the two scenarios. Yet this move is not available to Vong if, as he contends, *B*'s claim is just on the general benefit of having his life saved; whether the buoy is regular or defective in the manner described in DEB does not affect the benefit Vong thinks is at stake.

Since Vong's position faces this difficulty, it seems more plausible to say as I do that in both cases, *B* does have a claim-based reason to complain, but that in DEB, his claim-based reason to complain and his other normative reasons regarding the option of complaining come apart, while in my reversed case they are in harmony. In other words, in DEB, *B* clearly has other normative reasons *not to complain*, and these other normative reasons happen to outweigh the

16 Vong, "Lottery," 474–75.

claim-based reasons he possesses to complain about not getting what he specifically won in the lottery. So, DEB does not rule out the possibility that *B* has claim-based reasons to complain. As a result, we can claim against Vong that *B* would be, in an important sense, *justified* in complaining about not receiving the specific (defective) buoy that he won, even if we also acknowledge that it would be pragmatically absurd for *B* to *actually* do so.

Vong has offered the following reply to my argument in correspondence: "To better understand the effect of legitimate reasons alone, we need a case … which … shows that when there are no instrumental reasons at play, there still is not any justified reason for complaint on behalf of someone who 'won' a different specific good than the one that they ultimately received that was equally as good." The scenario Vong suggests here corresponds to one of the examples in his article: the Extra Buoy case. This case is similar to DEB, except for the fact that both buoys are regular buoys—we can imagine that they differ merely in color, with the first buoy being red and the extra buoy being blue. For Vong, it would be absurd to insist on giving the red buoy to the lottery winner *B* and the blue buoy discovered post-lottery to the lottery loser *A*: "Intuitively, it does not matter who gets which buoy, as long as both of their lives are saved."[17] However, in cases like this, I am willing to simply bite the bullet and claim that, *strictly speaking*, there are reasons to give specifically the red buoy to *B* and the second blue buoy to *A* as opposed to the other way around, even if in practice there is no need to criticize the captain if he fails to do this or to compensate *B* if this is not done. The fact is that sailor *B* participated in a procedure that is *designed* to provide the winner with a good that has been specified in advance—in this case, the red buoy. This fact does not change simply because, in a case like Extra Buoy, *B* lacks any pragmatic reasons to complain about getting the otherwise identical blue buoy.

In sum, Vong's reply to Broome, which rejects the specific benefits view, yields plausible answers in Vong's original DEB case and the Extra Buoy case (including when the two buoys are different colors). But it has trouble with my reversed DEB case because, given that Vong thinks the benefit in question is the general one of having one's life saved, Vong would have trouble explaining why, intuitively, one has a claim-based reason to complain if one gets a defective buoy instead of the specific regular buoy one wins in the lottery. On the other hand, my proposal, which accepts the specific benefits view and distinguishes between different reasons to complain, yields intuitively plausible answers in both my reversed DEB case and Vong's original DEB case. But it requires biting the bullet in the Extra Buoy case (including when the two buoys are different

17 Vong, "Lottery," 475.

colors) and claiming that, strictly speaking, one has a claim-based reason to complain even in the Extra Buoy case. It seems to me that Vong lacking a plausible explanation for why one has a claim-based reason to complain if one gets a defective buoy rather than the specific normal buoy one wins in the lottery is a bigger problem than the bullet I have to bite in the Extra Buoy case (including when the two buoys are different colors). It is more important to successfully account for all instances of legitimate claim-based complaints than it is to avoid trivial claim-based complaints.

In light of all this, there is reason, after all, to remain unconvinced by Vong's response to Broome's objection. Intuitively, a winner of a previous lottery round does have a special claim in a subsequent round and can justifiably complain if this is not taken into account.

Although Vong's dual structure view of lotteries is problematic in light of Broome's objection, I do not think it should be fully rejected, especially since Vong's basic argument that lotteries should be diachronic rather than synchronic seems right. Instead, I want to modify Vong's model in order to account for Broome's intuitively plausible suggestion that, for diachronic lotteries to be fair, subsequent lotteries should take "into account earlier results."[18] One way to integrate Broome's intuition into Vong's account in a principled way could be to include in subsequent lotteries all individuals who have a benefit claim *except* those who have already had a procedural claim satisfied *with respect to that specific benefit* by losing a previous lottery. That way, we can mostly capture Vong's intuition that if you have a benefit claim, you should be included in a lottery for that benefit, while also capturing Broome's intuition that having a procedural claim satisfied can impact your benefit claim.[19]

Moreover, Broome has suggested to Vong a way to run "subsequent lotteries between previous winners and *subsequent claimants*, while adjusting the probabilities of subsequent lotteries to ensure all claimants have an appropriate chance of benefiting."[20] This suggestion is useful for implementing the modifications to Vong's account that I have proposed. For example, in the Stormy Seas case, Broome proposes running a *weighted* diachronic lottery in which *B* is given an increased chance of winning Lottery 2, such that his winning Lottery 1 is recognized *and* such that *B*'s *overall* chances of winning the benefit are equal to those of all other claimants in Lottery 2.[21]

18 Vong, "Lottery," 481.

19 This intuition is reflected in Broome's notion of surrogate satisfaction of claims; see Broome, "Fairness," 98.

20 Vong, "Lottery," 481.

21 See Vong, "Lottery," 481.

Table 2. Stormy Seas Revisited

	Chances to Win	
Lottery	Vong's Account	Weighted Diachronic Account
Lottery 1 (t_1)	A = 50% B = 50%	A = 50% B = 50%
Lottery 1 Result	B wins	B wins
Lottery 2 (t_2)	A = 25% at t_2 (¼ chance overall) B = 25% at t_2 (¼ chance overall) C = 25% at t_2 (¼ chance overall) D = 25% at t_2 (¼ chance overall)	A = 0% at t_2 (¼ chance overall) B = 50% at t_2 (¼ chance overall) C = 25% at t_2 (¼ chance overall) D = 25% at t_2 (¼ chance overall)

Note: "Overall" = across t_1 and t_2.

In the kind of weighted diachronic lottery proposed here, in each new round, the winner of the previous round is given the chances that the losers of the previous round would have had in the new round. So, in the Stormy Seas case, if sailor *E* happens to fall in the water after Lottery 2 (which *B* wins) and before the buoy is given to *B*, a third lottery must be run between *B* and *E*, in which *B* is given the chances that *A*, *C*, and *D* would have had in the new lottery (if everybody had an equal chance). This would result in *B* having a four-fifths chance to win Lottery 3, whereas *E* would have a one-fifth chance to win Lottery 3. However, *B* and *E* would each have an *overall* chance of one-fifth to win the buoy (across lotteries 1–3).

In his article, Vong rejects Broome's new suggestion of a weighted diachronic lottery due to his argument based on DEB. However, since I have shown why that argument is unconvincing, I contend that the account I have given here based on Broome's suggestion is the fairest option as it avoids the two problems that we have discussed: (i) morally irrelevant features such as how late one falls into the water, have no influence on a claimant's chances of winning, and (ii) *B*'s winning Lottery 1 (and *A*'s losing Lottery 1) is not ignored.[22]

At first glance, one might think that a certain variant of Vong's Stormy Seas case could pose a problem for this account of weighted diachronic lotteries. Imagine a case in which, at first, only one sailor, *A*, falls into the water, and the captain runs a lottery just for *A*, which *A* has a 100 percent chance of winning and which *A* wins. However, just before *A* is given the buoy, sailors *B*, *C*, and

22 Some might argue that *A* could complain about not being included in the second lottery. However, I contend that although *A* might have some normative reason to complain, in general he does not have any *claim-based* reasons to do so (or any other *legitimate* reason to complain). After all, *A*'s overall chance of winning the benefit across the two lotteries is the same as that of each other sailor. Moreover, *A*'s procedural claim is satisfied through his participation in a fair distribution process.

D all fall into the water, and a new lottery is run. It seems like a supporter of my view would have to claim that *A*'s win of the first lottery must be ignored in order for *A*, *B*, *C*, and *D* all to have an equal overall chance (across both lotteries) at receiving the buoy. Yet ignoring *A*'s win in the first lottery is precisely the outcome my view was supposed to avoid.

However, I do not think this example poses a genuine problem for my view. The point of running a lottery in the first place is to fairly distribute a scarce or indivisible good among multiple claimants. When there is only one claimant for one good, or when the goods are abundant enough or divisible such that all claimants can be satisfied, there is simply *no need* for a lottery, whether morally or practically. So, in a case like the one we are considering here, the first lottery run for a single claimant has no moral or practical relevance and, therefore, need not be taken into account when the second lottery is run for multiple claimants. In other words, there is no morally relevant factor from the first lottery that needs to be taken into account in the second lottery precisely because the first lottery was frivolous. Thus, there is no problem with assigning an equal 25 percent chance to all of *A*, *B*, *C*, and *D* in the second lottery because there is not actually anything from the first lottery that is relevant to the question of the second lottery's fairness.[23]

Another potentially problematic case is one in which there *is* moral and practical reason to run a lottery in the first instance because there are multiple beneficiaries, but one of the potential beneficiaries becomes no longer available to receive the benefit. For example, consider a case in which *A* and *B* fall into the water, a lottery is held, but *A* drowns. This sort of case can take one of two forms, depending on when *A* becomes no longer available to receive the benefit—that is, depending on whether *A* dies *after the first lottery has concluded* and *A* has been declared the winner or dies *prior to this while the first lottery is still going on*.

If *A* dies while the first lottery is still going on, that lottery would cease to reflect the actually existing claims on the benefit. Since *A* is dead, *A* no longer has a claim, which means that only *B* (who is still alive in the water) has a claim on the benefit, yet the lottery is structured as though there are two claims on the benefit. This means that in the scenario where *A* dies *during* the first lottery, the first lottery must be nullified. At that point, as long as no more sailors have

23 More generally, it is also worth emphasizing that given the practical and moral question that lotteries are meant to solve, it simply does not make sense to run a lottery when there is only one claimant. To do so is to implement a solution without a problem. Moreover, in certain cases where the stakes are high, such as life or death cases like the variant of Stormy Seas we are considering, it might even be *immoral* to run a lottery when there is only one claimant and he is drowning. It seems like what we ought to do morally is to give the lone claimant the buoy as quickly as possible.

fallen overboard yet, then on my view, the resulting scenario is exactly like the one discussed above where only *B* is overboard—there is no need to hold a second lottery. On the other hand, if more sailors fall into the water at this point, a new lottery should be held, giving equal chances to *B* and these other sailors. Either way, as discussed above, there would be no problem for my view.

Alternatively, if *A* dies after the first lottery has concluded and *B* has been declared the winner, then on my view, once more sailors fall into the water, the scenario is exactly like the normal Stormy Seas case: a second lottery is held and *B* is given the chances that A *would have had* in the second lottery. Recall that, on my view, in each new round the winner of the previous round gets the chances that the losers of the previous round would have had in the new round. The fact that *A* actually happens to have died after the first lottery has concluded does not change how the second lottery should be run—the second lottery should still take into account that counterfactual about the chances *A* would have had in the second lottery. This is because the reason *B* is supposed to get the chances the loser of the previous lottery would have had is to reflect *B*'s win of the first lottery while maintaining the same overall chance of winning the benefit for all the sailors who fell overboard. Whether *A* dies after losing the first lottery or survives does not affect this consideration. So, whether *A* dies during or immediately after the first lottery, the situation will be identical to one of the cases that my view can deal with without a problem—either the case discussed above where only *B* falls in the water, or the original Stormy Seas case.

In sum, my proposed account of lotteries combines the advantages of both Vong's and Broome's accounts while avoiding their disadvantages. Unlike Broome's original account, my proposed account is diachronic and thus avoids appealing to morally irrelevant factors while providing equal overall chances of winning to anyone with a claim on a given benefit in temporally extended cases (which makes it procedurally fair according to Vong's standards). And unlike Vong's account, my proposed account recognizes that having procedural claims satisfied can change one's benefit claims in subsequent lottery rounds (as in my proposed treatment of *A* in Stormy Seas) and that winning previous lottery rounds should be taken into account in temporally extended cases (as in my proposed treatment of *B* in Stormy Seas). That is, my new account is diachronic and genuinely procedurally fair, which makes it more plausible than Broome's synchronic account or Vong's dual structure view. It takes into account the way changes in the number of claimants or availability of goods in temporally extended cases can affect the fairness of a lottery run prior to those changes, but without totally ignoring the results of those prior lotteries. Hopefully, all this can contribute to finding the fairest way to run lotteries, which is particularly

important as it can have a significant impact on people's lives—especially in cases related to health where there are often not enough goods to satisfy everybody, such as organ distribution or Medicaid lotteries.[24]

Boston University
marieklb@bu.edu

REFERENCES

Allen, Heidi, Katherine Baicker, Sarah Taubman, Bill Wright, and Amy Finkelstein. "The Oregon Health Insurance Experiment: When Limited Policy Resources Provide Research Opportunities." *Journal of Health Politics, Policy, and Law* 38, no. 6 (December 2013): 1183–92.

Broome, John. "Fairness." *Proceedings of the Aristotelian Society, New Series*, 91 (1990): 87-101.

———. "Uncertainty and Fairness." *The Economic Journal* 94, no. 375 (September 1984): 624–32.

Burgers, Jan-Willem. "Perspectives on the Fairness of Lotteries." *Res Publica* 22, no. 2 (May 2016): 209–24.

Sher, George. "What Makes a Lottery Fair?" *Noûs* 14, no. 2 (May 1980): 203–16.

Vong, Gerard. "Fairness, Benefiting by Lottery and the Chancy Satisfaction of Moral Claims." *Utilitas* 27, no. 4 (December 2015): 470–86.

24 I am grateful to Gerard Vong for bringing my attention to cases such as the Oregon Medicaid lottery. See also Allen, Baicker, Taubman, Wright, and Finkelstein, "The Oregon Health Insurance Experiment," 1183–92.