The Aid That Leaves Something to Chance*

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I argue that a crucial point has been overlooked in the debate over the “numbers problem.” The initial arrangement of parties in the problem can be thought of as chancy, and whatever considerations of fairness recommend the reliance on something like a coin toss in approaching this problem equally recommend treating the initial distribution as a kind of lottery. This fact, I suggest, undermines one of the principal arguments against saving the greater number.

A scene from Do Not Adjust Your Set:

Michael Palin: Here are some really exciting games you can play this Christmas. First, from Terry, the A and B game.

Terry Jones: The guests are divided into two teams, A and B, and B are the winners. You can make it more complicated as you want.

I. THE NUMBERS PROBLEM

The Bay of Moral Decision contains two islands, Isle de Trois and Isle de Deux. There are three people on Isle de Trois and two people on Isle de Deux. There is no difference between these individuals that is relevant to any moral decision, or at least none that you could possibly know.

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about. Mothra will kill everyone left in the bay in exactly one hour. You have a boat, and you can reach either island, but you don’t have time to reach both. What should you do?

This problem’s many respondents seem to have narrowed the range of answers to the following three decision procedures:

1. Save the Greater Number: Rescue those on the island with more people.
2. Hold a People Lottery: Assign each castaway a lot, draw lots, and then rescue everyone on the island of the winner.
3. Hold an Island Lottery: Assign each island a lot, draw lots, and then rescue everyone on the island selected.

There are of course other procedures for making our decision about whom to rescue, but these seem to be the three that are not marred by arbitrariness, asymmetries, or a willingness to let everyone die.¹

Once we choose a procedure, we have to explain why it is the right one. Consequentialists prefer Save the Greater Number for obvious reasons. If I have no information about the castaways but am required to maximize something, then I should maximize the number saved. But the consequentialist view is far from consensus. John Taurek argued that Saving the Greater Number is premised on a perverted conception of our moral relationships with other people. Human beings are not like commodities that can be stacked atop one another. I have an individual obligation to each person trapped in the Bay of Moral Decision, and this obligation does not vanish just because someone winds up on Isle de Deux. Taurek argues that to live up to our individual obligations to each castaway we cannot aggregate in the way the consequentialist does. We must instead give each person the greatest possible chance of being rescued consistent with everyone else having the same chance. That is, we might explain, what fairness requires. Taurek goes on to say that Holding an Island Lottery—that is, flipping a coin to decide whether we go to Isle de Trois or Isle de Deux—is the only decision procedure consistent with fairness so understood. Employing this procedure gives everyone a \( \frac{1}{2} \) chance of being rescued, since a castaway will be rescued just in case his island is chosen by the Island Lottery. On the other hand, Saving the Greater Number gives the people on Isle de Trois a 100 percent chance of rescue and those on Isle de Deux no chance whatsoever. Finally, Holding a People Lottery assigns chances differentially according to which island one finds himself on: if you are on Isle de Trois, there is a \( \frac{3}{5} \) chance that either you or one of your island-mates will win the People Lottery; if you’re on Isle de Deux, it’s \( \frac{2}{5} \). Thus, Taurek’s argument goes,

¹ Indeed, for any distribution of probabilities of rescue, we can concoct a procedure that assigns those probabilities.
only Holding an Island Lottery equals chances, so only it discharges our individual obligations to each person.\(^2\)

Not all nonconsequentialists fall in line behind Taurek. Frances Kamm and T. M. Scanlon say that Taurek’s solution runs afoul of certain meta-constraints. Our procedure for choosing, they maintain, must grant each person equal moral consideration. As Kamm puts it, “if we . . . toss a coin between one person and any number on the other side, then we would behave no differently than if it was a contest between one and one. If the presence of each additional person would make no difference, this seems to deny the equal significance of each person.” What Kamm is suggesting is that Holding an Island Lottery amounts to according equal respect to each island, not to the people on them—a risible thought. A strategy that grants equal moral consideration to people should not be numb to the presence or absence of people, but Taurek’s strategy is exactly that.\(^3\) Even if Kamm and Scanlon’s point is decisive against Holding an Island Lottery, it does not unambiguously support Saving the Greater Number. This has been pointed out by several writers.\(^4\) They observe that Scanlon’s and Kamm’s arguments for equal consideration also support our other candidate procedure, Holding a People Lottery. Here each person gets a lot in our rescue lottery, and this seems to be a perfectly good way to grant equal moral consideration. Moreover, a People Lottery, unlike Taurek’s Island Lottery, is sensitive to the addition or subtraction of people in just the way Kamm and Scanlon demand. Indeed, Jens Timmermann has argued that holding a People Lottery is the right course of action on just these grounds.\(^5\) Finally, one might say, as John Broome does, that Taurek is right about what fairness requires, and he is right that we have powerful reasons to do what is fair. But in many instances of the numbers case, these reasons are outweighed by the goodness of rescuing more people.\(^6\)

2. John Taurek, “Should the Numbers Count?” *Philosophy and Public Affairs* 6 (1977): 293–316. This may be a somewhat stronger conclusion than Taurek intends. He claims that he *would* flip a coin, but nowhere does he say explicitly that this is the only appropriate course of action.


So stands the debate, and I think it fair to say that it is something of a mess. We have three different ideas for making up our mind about how to rescue people, a handful of moral principles, and some intuitions about the weight of reasons, but when we try to connect these principles to particular procedures, we find dissension. I propose that the cause of all this messiness is that a crucial point has been overlooked in this debate. The initial assignment of people to islands—the process whereby a person ends up on Isle de Deux rather than Isle de Trois—is chancy and so can be thought of as affected by a lottery. In the next section I explain what I mean by this; in the one after it I defend the claim; and in the final section I spell out the consequences for the numbers problem.

II. GOD’S LOTTERY

There is more than one way to hold a lottery among our castaways. You could get five ping-pong balls, label each with the name of a different castaway, choose one ball at random, and designate that ball’s owner the winner. Alternatively, you might proceed as before but keep drawing ping-pong balls until you’ve taken them all; whichever name you draw last, call her the winner. You could also assign each castaway a sector on a wheel of fortune, spin the wheel, and call whosever sector comes up the winner. And here is one more: those castaways who have landed on the island with more people, call them the winners.

Is this last procedure really a lottery? That sounds preposterous. There are no dice, no ping-pong balls, no wheels of fortune. We are calling some people the winners not because they emerge from some randomizing device like a spinning wheel or a bag of ping-pong balls but on the basis of a definite feature: that they are on the more populous island. What are we leaving to chance if we dub the people on Isle de Trois the winners and rescue them?

But recall how the numbers problem is formulated. By hypothesis, there is no difference between the people on the two islands that could be relevant to our decision. It is not that Gandhi and Clara Barton are on Isle de Deux, while the trio on Isle de Trois get their kicks by clubbing baby seals. Nor is it that the people on Isle de Deux are my sworn enemies, and those on Isle de Trois my oldest friends. Nor is it that the residents of Isle de Deux have been long neglected because of their

7. Similar suggestions have been made in other arenas. See, e.g., Thomas Schelling, “The Threat That Leaves Something to Chance,” in his The Strategy of Conflict (Cambridge, MA: Harvard University Press, 1960); in a remark by Charles Fried in a discussion of partiality in An Anatomy of Values (Cambridge, MA: Harvard University Press, 1970), 227; and David Lewis, “The Punishment That Leaves Something to Chance,” reprinted in his Papers in Ethics and Social Philosophy (New York: Cambridge University Press, 2000). My debts to these papers should be obvious in what follows. (Thanks to an editor for pointing out the discussion by Fried to me.)
small population. If any of these were the case, we would be facing a very different kind of choice, one about how to weigh the iniquity of the seal clubbers in our decision, whether partiality considerations can enter into cases like this, or the commensurability of different claims on me. The essence of our case, however, is that all we have are the numbers: five people distributed between two islands. Because all this additional information has been screened off, there is no way to see the assignment of people to islands as principled. That is, we cannot help but see each person as coming to his or her island by chance because we know nothing about them. And this means that we can think of these island assignments as made by a lottery—by what I call God’s Lottery—and declare those who landed on Isle de Trois are the winners of that lottery.8

Why are the castaways on Isle de Trois the winners? Why not call the ones on Isle de Deux the winners and rescue them? This is a good question, but it is one that any lottery-based procedure must answer. Any such procedure can be “reversed” by switching the group selected by the lottery from winners to losers. There doesn’t seem to be any way to decide between these lotteries and their reversals other than considerations about the numbers. From a certain perspective after all, rescuing no one is the fairest thing we can do.9

That is the intuitive case for the claim that the procedure assigning castaways to islands is chancy. The next section develops the thought more carefully.

III. THE MORAL STATUS OF GOD’S LOTTERY

Is God’s Lottery a real lottery? I cannot answer this question because I don’t know what it means. But I can defend a comparative claim: the properties of more traditional lotteries—flipping a coin—that we cite to justify our reliance on these lotteries in moral deliberation are also properties of God’s Lottery. For the purposes of moral deliberation, God’s Lottery and these devices are on all fours.

We turn to lotteries because we think that in some cases they are the best way to act fairly. Ordinarily, fairness would require an equitable distribution of a good, but sometimes our goods are indivisible and that is impossible. But in this case, as Broome explains, “a sort of par-

8. Maybe this silly name is misleading: I certainly don’t mean that anyone, divine or otherwise, is actually holding a lottery.

9. This fact is especially problematic for something Timmermann says. He doesn’t want his procedure to be one on which we choose an island by choosing a person; it is not supposed to be a “proportional lottery.” He suggests that our lottery select an individual, and that we head off to rescue that individual. But upon arriving at his island we discover that there are other people there too, so we then take on a requirement to rescue them too. But this reasoning supports an alternative scenario on which our lottery selects which person we abandon. This procedure reverses the probabilities, giving those on the more populous island a lower chance of rescue than those on the more populous one.
tial equality in satisfaction can be achieved. Each person can be given a sort of surrogate satisfaction. By holding a lottery, each can be given an equal chance of getting the good. This is not a perfect fairness, but it meets the requirement of fairness to some extent.”

But what kind of chances should be equalized in the name of fairness? Objective chances? Subjective chances? I will not take sides on this issue but instead defend my comparative claim: for each candidate for type of chance to be equalized, God’s Lottery does as well as a more traditional lottery.

First, suppose we think fairness demands us to equalize objective chances. This is tricky, given the controversy attending the whole notion of objective chance, but here is how to think about it: for my comparative claim to be false, there must be some reasonable conception of objective chance that classes the distribution of God’s Lottery differently from that of a ping-pong ball draw—that the latter equals the real thing, objective chances, while the former merely equalizes subjective chances. I doubt there is such a conception. The default assumption here is that the universe is deterministic, and this means there are no events that are objectively chancy. If this is so, then ping-pong balls are just as fated to land where they do as our castaways are, and that’s the end of the story. Some philosophers do hold that determinism is compatible with objective chances other than zero and one. But even if the examples they cite—the use of probabilities in statistical mechanical explanations—are persuasive on this point, they don’t help with the larger goal: they don’t give us any reason to think that the probabilities associated with coin flips and island distribution will end up on opposite sides of the objective/subjective divide. The reason is that coin tosses and island distribution are the same kind of events, more or less: they are both physical, macroscopic events taking place in the same corner of the universe and governed by roughly the same sort of laws. So it is unlikely


11. For example, in “A Subjectivist’s Guide to Objective Chance,” David Lewis writes that “there is no chance without chance. If our world is deterministic there is no chance in it, save chances of zero and one”; reprinted in his Philosophical Papers (New York: Oxford University Press, 1987), 2:120.

12. Barry Loewer, “Determinism and Chance,” Studies in History and Philosophy of Science Part B: Studies in History of Modern Physics 32 (2001): 609–20. Closer to this debate, Stephen Perry has argued that there are some events that are germane to assessments of risk and responsibility that have objective probability between zero and one. (See his “Responsibility for Outcomes, Risk, and the Law of Torts,” in Philosophy and the Law of Torts, ed. G. J. Postema [New York: Cambridge University Press, 2001], 97–99.) Perry’s argument is that the objective probability of an event is just the relative frequency of that event’s type. To this I have the same response: if we use this suggestion to argue that a coin has objective probability one-half of coming up heads, then I don’t see why we can’t argue in similar fashion that an arbitrary castaway has objective probability three-fifths of ending up on Isle de Trois.
that they will fare differently according to whatever our standard of objective chanciness is. Finally, one could amend the claim to be about probabilistic exotica. If ping-pong balls and coins are not objectively chancy, then maybe something else is—the motions of very small things, perhaps. This strategy has a whiff of desperation about it. Not least of our problems if we go this route is that we are forced to wrestle with the question of why fairness would require us to buy expensive laboratory equipment and be essentially impossible in a fully deterministic universe. For these reasons, I don’t think there is much to be found for critics of my comparative claim in objective chance conception of fairness, so I leave it aside for the remainder of the article.

Now suppose that fairness requires the equality of subjective chances. This is ambiguous. There are different subjects, and these subjects know different things and may represent the same situation in different ways. Filling in the gaps in our narrative will make it clear why this matters in the numbers case. Imagine our rescuer, Ranger Rick, learns about the situation in the following order: (1) Ranger Rick is at his office and made aware that there are three people on Isle de Trois and two on Isle de Deux. (2) Ranger Rick peers through his binoculars. All he can see are fuzzy stick figures, but he can ostend to these fuzzy stick figures. As a result he comes to believe that person is on Isle de Deux.

Does God’s Lottery equalize subjective chances? Relative to Ranger Rick’s position at (1), it does. Someone wins God’s Lottery just in case they end up on Isle de Trois. We can compute the probability that an arbitrary castaway wins this lottery thus: there are five slots that the castaway could occupy, and three of them are winners. Ranger Rick has no reason, at (1), to suppose the castaway occupies any one slot rather than another, so by the Principle of Indifference, the probability that this castaway wins the lottery is \( \frac{3}{5} \). The same reasoning applies to everyone else. So God’s Lottery does equalize the subjective chances of rescue for someone in the epistemic position Ranger Rick is in at (1).

At (2) this appears to change. Suppose Ranger Rick ostends to someone on Isle de Deux and asks what chance that person has of winning God’s Lottery. Naturally, because that person is on Isle de Deux, the answer is 0. If we do the same thing by ostending to a stick figure on Isle de Trois, we get an answer of 1.

Why the difference? Because at (2) we are picking out our “arbitrary” castaway using information to which our probability calculation is sensitive. We are ostending to someone we can plainly see is on Isle de Deux, and if we integrate this information into our calculation, we get the probabilities just mentioned. The case is similar to the following one. We have a fair coin and plan to toss it. What is the subjective probability that [the side that does in fact come up] will come up? It depends on how we represent this event. When we think about it \emph{de dicto}, it seems that the
probability is 1: we have defined this side as the side that comes up, so
given what we know, it will definitely come up. But when we consider it \textit{de}
\textit{re} the probability is .5: we have no knowledge of bias in the coin, so the
side that came up—that particular side—could (for all we know) just as
easily land down. In the coin-flip case and Ranger Rick’s representations
at (1) and (2) we see the following phenomenon: when we pick out an
event using a description or some other referential device that gives us
information that affects our probability and then consider that event \textit{de}
\textit{dicto}, we may get a different subjective probability than when we consid-
ered the event under a different guise.

There are interesting questions about the moral significance of
mode of presentation for a given event, but I think our purposes allow
us to bypass this issue.\footnote{Perry, “Responsibility for Outcomes,” includes some discussion of this question.} Our question is about the implications of this
difference for the fairness of God’s Lottery. From Ranger Rick’s view
at (1), God’s Lottery gives everyone an equal subjective chance of win-
nning, but from his standpoint at (2), it seems not to. Does the latter fact
vitiate the fairness that would otherwise follow from the former?

We should only draw this conclusion if Ranger Rick learns some-
thing morally relevant between (1) and (2). To see why, consider a similar
case. Suppose that instead of learning that person is on Isle de Deux
at (2), Ranger Rick learns something else that is of no moral importance
but which changes how he thinks about the case. For example, at (2*) he
learns that one of the castaways on Isle de Deux is wearing a blue hat,
and no one else in the bay is. This allows Ranger Rick to baptize one
castaway Blue Hat Guy and ask: what chance does Blue Hat Guy have of
winning God’s Lottery? The answer, of course, is 0 because Blue Hat Guy
is on Isle de Deux. Surely this does not mean that God’s Lottery would
be fair at (1) and unfair at (2*). The only change is that Ranger Rick has
learned that someone on Isle de Deux has a blue hat, and that could not
make such a moral difference.

The same holds for Ranger Rick at (1) and (2). What does Ranger
Rick learn between (1) and (2)? Very little: he goes from knowing that
there are two people on Isle de Deux and three on Isle de Trois to know-
ing that it is “\textit{that person} and \textit{that person} and \textit{that person} are on Isle de Trois”
and “\textit{this person} and \textit{this person} are on Isle de Deux.” He already knows that
there are three people on one island and two on the other; all that
changes is that he can now pick out the castaways using demonstratives.
(In fact, he could have done the very same thing from the comfort of his
office with some fancy semantics. Call the person on Isle de Deux with
the most hairs “Harry.” What is the probability that Harry wins?) More-
over, the numbers problem is defined such that there is nothing else of
moral relevance that Ranger Rick could come to learn between (1) and
(2). If there were something morally relevant, he might learn between
(1) and (2)—that the people on Isle de Deux are at white supremacist summer camp, that those on Isle de Trois are Ranger Rick’s own children, even that those on Isle de Trois look a trifle wizened—then we would not be dealing with a numbers problem but with a different sort of moral question.

(I could imagine Taurek resisting this point and suggesting that a certain representation of the case is morally obligatory. The thought that we owe rescue to all the castaways as individuals, and this duty cannot be aggregated may [though I do not quite see how] suggest that we are required to think of the castaways de re. But this actually hurts Taurek’s case. If I think about a castaway de re, I will believe of that very person that she could have been on an island different from the one she is actually on, and so I will think the distribution of castaways is chancy. Taurek’s diagnosis of the problem requires picking out the castaways using a description that mentions the island they are on.)

We have been given no good reason to suppose that the equality of subjective chances at (1) is insufficient to qualify God’s Lottery as a fair lottery. Importantly, I have not argued that God’s Lottery has any properties that make it more fit for use in moral deliberation than a coin flip, only that God’s Lottery serves just as well in satisfying our reasons for wanting to use some chancy procedure. We want to equalize chances because we think fairness requires it. But this is not entirely straightforward. We may think that fairness demands the equality of objective chances. God’s Lottery does not achieve this, but then neither do characteristically fair lotteries like ball draws and coin flips. On the other hand, fairness may require the equalization of subjective chances. God’s Lottery does this, albeit in a different way—from a different point of view—from other lotteries. But because there is no good moral reason to discount this point of view, God’s Lottery is as fair as more conventional lotteries.

IV. WHAT TO DO

Once we conclude that God’s Lottery is a fair lottery, we are forced to rethink our other probabilities. In particular, we find that the ping-pong ball lottery on which Hold a People Lottery is based is also fair. This is not the typical characterization. Assume that fairness involves the equality of subjective chances. What is the subjective probability that a castaway will be rescued if we Hold a People Lottery? Each castaway has an equal chance of having their ping-pong ball picked, but we don’t rescue just the person whose ball is picked. We rescue everyone on the winner’s island. And this means that Holding a People Lottery gives a greater chance of rescue to those on the more populous island: Isle de Trois’s castaways have a $\frac{3}{5}$ chance of rescue because Isle de Trois controls three of the five ping-pong balls, while those on Isle de Deux have only a $\frac{2}{5}$
chance. But notice that these are the probabilities conditioned on individuals being on particular islands, and so if we think of this very assignment as chancy—as the result of God’s Lottery—we can just as well ask about the unconditioned chances. From any point of view on which the distribution of castaways is chancy, Holding a People Lottery involves two lotteries. First there was God’s Lottery, which distributes people to islands. Once this is done, we hold something like a ping-pong ball lottery to determine which of these islands has its castaways rescued. The probability that some arbitrary person will be rescued is equal to the probability that the castaway selected by the ping-pong ball lottery is on Isle de Trois times the probability that our person is on Isle de Trois (which are independent events) plus the probability that the person selected by our ping-pong ball lottery is on Isle de Deux times the probability that our person is on Isle de Deux (again, independent):

$$\frac{3}{5} \times \frac{3}{5} + \frac{2}{5} \times \frac{2}{5} = \frac{13}{25}.$$  

This is the appropriate understanding of the situation from the epistemic position I called (1) above. If Ranger Rick decides at that moment to Hold a People Lottery, then all of our castaways have this probability of rescue. As such, this lottery is also fair.

We have three lotteries that all equalize subjective probability from morally legitimate points of view. All three of these lotteries are fair, and the three procedures that depend on them are also fair. If we add the procedure on which we rescue no one, which is, as Broome emphasizes, eminently fair, then we have four. These procedures differ in the probability that each castaway has of rescue: $\frac{3}{5} > \frac{13}{25} > \frac{1}{2} > 0$. This makes intuitive sense, for Holding a People Lottery and Holding an Island Lottery make it more likely that we will go to the less populous island, which serves to diminish the total number of expected rescues relative to Saving the Greater Number, and this, in turn, diminishes probabilities.

Broome’s position is that fairness requires doing what Taurek suggests—Holding an Island Lottery—but that the good of Saving the Greater Number outweighs reasons of fairness. I have argued that in fact all of our procedures are tied in terms of fairness because for all of them there is a morally legitimate point of view from which they equalize subjective chance of rescue. 14 This means that considerations of rescuing

14. One small corroboration of this claim is that it appears to comport with a broadly Rawlsian conception of fairness (even though Rawls’s explicit theory does not apply to rescue cases). It seems likely that the procedure the castaways would choose from behind a veil of ignorance (one that concealed which island each was on) would be Save the Greater Number. Both Taurek (312) and Kamm (Morality, Mortality Volume I, 119–21) are critical of such rationales. More recently see the discussion of veil of ignorance arguments in Ben Bradley, “Saving People and Flipping Coins,” Journal of Ethics and Social Philosophy (2009), http://www.jesp.org/pdf/savingpeople.pdf, III (1).
more people rather than fewer need only break the tie, not outweigh reasons of fairness. It seems clear, therefore, that we should Save the Greater Number.\footnote{I am bracketing some exogenous reasons for using a traditional lottery: that doing so is a buffer against corruption, that it inspires confidence in the procedure. For some brief comments on this front, see John Broome, “Selecting People Randomly,” Ethics 95 (1984): 38–55.}

V. CONCLUSION

The reader may worry that I want to leave all sorts of moral questions up to God’s Lottery. The poor and down-trodden lost God’s Lottery, you may expect me to say, so we should just leave them to their wretched fate. But this isn’t right. My point is restricted to cases where it seems like some lottery might be in order because a uniform and symmetric distribution of resources is impossible. This isn’t the case when we come to the basic questions of justice. If we thought the distribution of resources should be probabilistically egalitarian, that people should have an equal chance of being rich or poor, then maybe God’s Lottery would be relevant. But this shouldn’t be our default way of thinking about the problem of distributive justice. The distribution of resources should approximate actual equality, not a probabilistic surrogate. What makes the numbers problem special is that the goods are indivisible, so proper egalitarianism is impossible.

All this is related to an important point. The numbers problem is special in two respects. First, it involves an indivisible good to which multiple parties have equal claim. Second, as I have emphasized, the formulation of the problem screens off a lot of potentially germane moral information, including relationships between benefactors and recipients, how the recipients found themselves in a pickle, and the general moral character of the recipients. But of course not many moral decisions are really like this. If there is a larger moral to my argument, it is that what we ought to do in messy real-world cases that resemble the numbers problem will depend much more on the specifics of those cases than anything we can infer from the abstract ideal case. In particular, if we think that aggregation is inappropriate in a particular case, we are going to do much better supporting this claim by pointing to some particular feature of the situation that makes it so. That is, we will be more successful in this endeavor if we point to some substantive, morally thick conception of benefactors, recipients, and the context of their interaction, rather than abstract suggestions about the separateness of persons.\footnote{This last point is not a swipe at Rawls, who is candid about taking a particular conception of persons for granted—the one he thinks is presupposed by the defining question of political philosophy in modern democratic societies. The mistake is by those who would elevate such a conception to a metaphysical claim quite independent of its proper context.}