Egalitarian Justice and Expected Value[*]

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I. Introduction

The traditional form of egalitarianism is *outcome egalitarianism,* which proposes to equalize individuals' advantage levels. Writers such as Ronald Dworkin (1981), G. A. Cohen (1989), and Richard Arneson (1989) rejected such views, pointing out that they would require that advantages are equalized even if some individuals have gratuitously lowered their advantage levels below the average. They instead proposed *brute-luck egalitarianism,* which is often described as having two parts: first, like outcome egalitarianism, it says that the differential distributive effects of *brute luck,* which defines the outcome of risks which are not deliberately taken, are unjust; and second, unlike outcome egalitarianism, it says that the differential distributive effects of *option luck*, which defines the outcome of deliberate gambles, are not unjust.

This description of brute-luck egalitarianism is something of an oversimplification. It also includes a third part: it says that, where responsible choice is unmediated by luck, its results are not unjust. This third part is related to the second (option luck) part, as both involve choice, but is importantly different from it. This difference comes out where one contrasts a losing gamble with a predictably destructive act. If I lose my house in a gamble, I have been a victim of bad option luck, and brute-

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luck egalitarianism as it is usually understood supposes I am due no compensation. But compensation is similarly unforthcoming should I destroy my house in such a way that its loss is not mediated by luck.

The distinction between results which flow directly from choices, and those which arise from a combination of choice and luck, is unimportant to both brute-luck egalitarians and outcome egalitarians, but for opposite reasons. For the brute-luck egalitarian, inequalities which follow directly from choice and those which arise as a matter of option luck are similarly just; for the outcome egalitarian, such inequalities are similarly unjust. But a third egalitarian position takes this distinction as crucial. *All-luck egalitarianism* identifies brute-luck inequalities as unjust, as do all forms of egalitarianism.[1] Its innovation is to treat distributions which follow directly from choice as not unjust, while treating distributions which follow from differential option luck as unjust.

[1] The term 'all-luck egalitarianism' is from Shlomi Segall (2010, ch. 3). Richard Arneson (2007; 1999, 490-91) has endorsed one form of all-luck egalitarianism and criticized another. John Roemer (1996, 276-78; 1998, ch. 8) also appears to endorse a version of the view, apparently assuming, for instance, that an equal opportunity principle will pool risks among smokers. However, Roemer's settled position leaves it up to society to decide which factors should be treated as potentially compensation-entitling, and hence he is best interpreted as agnostic on option luck. Larry Temkin (2011) and Alexander Cappelen and Ole Frithjof Norheim (2005) defend all-luck egalitarianism, though the latter do so without distinguishing it from the more common brute-luck egalitarianism. Peter Vallentyne (2002, 539-40) refers to the view as 'equality of luck'. Interestingly, Kasper Lippert-Rasmussen (2005, 259) mentions a responsibility-insensitive form of all-luck egalitarianism. The argument of the present article leaves it open whether corrections for the results of option luck are due regardless of individuals' responsibility for them, or because individuals cannot be held responsible for them.

To see the intuitive appeal of the view, consider again the difference between losing a house as a matter of option luck and losing it as the result of a predictably destructive act. Option luck is not present only in classic, casino-style gambles. Any kind of investment that might go up or go down is exposed to option luck and is thus a gamble in the relevant, extended sense. Many would feel compensation more appropriate for someone who lost their house as the result of an investment that was impaired by deteriorating market conditions, than for someone who lost their house by covering it in flammable liquid and throwing a lit match into it.[2] All-luck egalitarianism responds to that difference of intuition.

The main internal problem for all-luck egalitarianism is how to respond to cases of option luck. Where distributions have resulted from brute luck or directly follow from choices, all-luck egalitarianism has a simple solution – the brute luck is eliminated entirely, and the direct results of choice are allowed to stand. But where there is a responsible choice but with results that have been mediated by option luck, no simple solution of this sort is available. To undo the combined results of the choice and attendant luck altogether would fail to recognize the important role of choice, carrying the position too close to outcome egalitarianism. But equally, to allow the combined results of choice

[2] It has been suggested to me that this case implicitly appeals to differences in intentionality between the house burner and the investor. But even where intentionality is constant, bad option luck appears to call for correction in a way that more straightforward results of choice do not. For instance, there seems a stronger case for (state) assistance to someone who has put their money in a savings account at a long-established bank that has unexpectedly collapsed, than there is for assistance to someone who has the same profit-making intention, but who has followed a strategy that is bound to fail (e.g. buying many lottery tickets and 'reinvesting' all winnings in more lottery tickets).

and luck to stand gives too much influence to luck, and indeed makes the position indistinguishable from brute-luck egalitarianism.

This problem is pressing because, in practice, there are no or virtually no cases of acts wholly unmediated by luck.[3] Even if I cover my house in flammable liquid, light a match, and throw it in, there is still something short of a 100 per cent chance of burning the house down: there is a small chance of the match extinguishing mid air, for instance. What drives all-luck egalitarianism is the thought that there is nevertheless an important difference between this case, and that in which I unluckily lose my house due to market conditions. The house burning case, though not a pure case of unmediated choice, is very close to one - perhaps there was a 99 per cent chance that my actions would result in the loss of the house. By contrast, making the investment might have only a one per cent chance of resulting in the loss of the house, in which case luck is very prominent in the outcome. What all-luck egalitarianism must do, then, is provide some account that puts these cases near opposite ends of a spectrum which runs from pure choice (implying zero compensation) to pure chance (implying full compensation). To capture this importantly scalar quality of all-luck egalitarianism, we can clarify that it treats distributions which follow from differential option luck as unjust, *to the extent that they follow from differential option luck.* But how can we measure the extent to which distributions follow from differential option luck?

The most promising solution is to say that a distribution follows from differential option luck insofar as it is characterized by *the unexpectedly good or bad outcomes of choice.* Insofar as we are all-luck egalitarians, our aim is then to provide individuals with

[3] I thank an anonymous referee for this point.

the *expected value* of their choices (Temkin 2011, 65). This accommodates the intuitive difference between house burning and investing on account of the fact that the former has a much lower expected value.

Though this solution has appeal, it faces several questions which have, to date, not received much attention. First, should risks be pooled among gamblers alone, so only winning gamblers compensate losing gamblers with the expected value of their gambles, or should the entire community pool risks? Second, which kind of probabilities (for instance, objective or subjective) should be used to calculate expected values and thus fair shares? Finally, what should be done where resources are so scarce that gamblers cannot be provided with the expected value of their gambles? In this article I present a version of all-luck egalitarianism that provides a plausible account of these issues. Cast in this light, all-luck egalitarianism provides a valuable perspective on egalitarian justice.

As this last claim suggests, an important limitation of the argument is that it focuses only on egalitarian justice, which is concerned with distributing benefits and burdens in such a way that equality is achieved in some substantive sense.[4] Egalitarian justice contrasts with any parts of morality which are not matters of justice (for example, supererogation), any parts of justice which are not matters of distributive justice (for example, prohibition of physical attack), and any parts of distributive justice which are non-egalitarian (for example, promotion of overall advantage). My argument is then narrow in the sense that I claim only to show what is required in the name of equality. For that reason, I will simply disregard the common objection to all-luck egalitarianism

[4] This was also the focus of the seminal presentations of brute-luck egalitarianism by Arneson (1989, 77) and Cohen (1989, 907, 909-11). For a specification of substantive equality see Knight 2009a.

that undoing the effects of option-luck inequalities would be deleterious of overall advantage levels (Segall 2010, 52-3; Barry 2008, 138 n. 7; Dworkin 2011, 358; Anderson 2008, 247-48). If there is more to distributive justice than equality, it may sometimes be all-things-considered just to allow option-luck inequalities to stand for the sake of increases in overall advantage, but that consideration has no place in an argument about the nature of equality. And my argument is narrower still, in that I focus on trying to work out the most plausible form of all-luck egalitarianism. While I suggest some attractions of this view, I do not engage in the sustained criticism of rival egalitarian views that would be required to establish all-luck egalitarianism as the all-things-considered most plausible version of egalitarianism.

In what follows, the three aforementioned questions for all-luck egalitarianism are considered in turn. Section II argues that winning gamblers and non-gamblers alike should provide losing gamblers with the expected value of their gambles, and that more generally, risks should be pooled throughout the community. Section III argues that the appropriate sort of probabilities for assessing expected value are neither objective nor subjective, but rather the probabilities gamblers would be warranted to expect (except where they non-culpably lack the capacity to expect what is warranted). Section IV argues that, where there are insufficient societal resources to provide individuals with expected values, each individual's entitlement is reduced by the same percentage as the overall shortfall. I then, in Section V, consider the objection that this form of all-luck egalitarianism allows risk-takers to impose externalities on non-risk-takers, and suggest that this objection actually points to a strength of the view. Section VI concludes.

II. Pooling

All-luck egalitarianism is sometimes presented as requiring that 'individuals who make the same choices should also have the same outcomes' (Cappelen and Norheim 2005, 478). On this view, risks are pooled among those who make identical choices. While this serves to distinguish the view from brute-luck egalitarianism, it is evidently insufficiently determinate as a full statement of the view. Some fuller account of who indemnifies who is required.

Writers who propose compensation for bad option luck without falling back on outcome egalitarianism have generally focused on expected value. Kasper Lippert-Rasmussen (2001) has claimed that, where gamblers would prefer the expected value of a gamble to facing the gamble itself, and thus are in his terms 'quasi-gamblers', there is a stronger case for redistribution from winning to losing gamblers. While taxation as a means of 'ensuring that winners and losers alike end up with expected values of their gambles' would disadvantage 'gamblers proper' (those who prefer the gamble over its expected value), similar taxation would improve the ex ante prospects of quasi-gamblers (Lippert-Rasmussen 2001, 555). A similar weight on the distinction between quasi-gambles and gambles proper is suggested by Marc Fleurbaey (2001), who explicitly suggests that quasi-gamblers are due the expected values of their gambles.[5] And Nicholas

[5] In later work Fleurbaey (2011, 86; see also Fleurbaey 2008) favours an 'egalitarian-equivalent' criterion, which, '[f]or any individual, ask[s] what level of external treatment (e.g. transfers) would maintain her current level of outcome if she had a reference (say, average) level of circumstance characteristics. Then give priority, in the sense of the maximin criterion, to those individuals with the least favourable level of external treatment in this counterfactual computation'. Whether this view compensates for bad quasi-

Barry (2008, 145-46) writes that, 'to apply luck egalitarianism, we must calculate the impact of luck on each risk taker and act to ensure that the benefits and burdens associated with this luck are shared equally amongst them all', subject to the condition 'that redistribution should only occur when risk takers would prefer to share out the wins and losses associated with risk taking (via this redistributive scheme), than to let luck run its course'.

All-luck egalitarianism as it is standardly understood pools risks among gamblers in this way, but drops Barry's (and, perhaps implicitly, Lippert-Rasmussen's and Fleurbaey's) condition that the pooling occurs only among quasi-gamblers. In other words, all-luck egalitarianism extends the treatment Barry proposes for quasi-gambles to all forms of option luck – quasi-gambles and gambles proper alike. It seeks to give losing gamblers the expected values of their gambles, at the expense of winning gamblers. For instance, Shlomi Segall (2010, 45-6) suggests that all-luck egalitarianism 'requires pooling the costs of medical treatment among those who make similar gambles with their health'.

The view that risks should be pooled among gamblers in some way faces the *grouping problem* – that of deciding which groups of gamblers should share each other's risks. The assumption seems to be that similar gambles should be pooled. But there is no apparent non-arbitrary way of grouping gamblers as sufficiently similar. As a referee commented, '[s]hould the skiers be bundled together with the mountaineers and the divers, or not? The farmers with the biotech startups?'.

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gambles or bad option luck generally will depend on whether they are classified as responsibility characteristics or circumstance characteristics.

Even if this problem could be overcome, it is not clear that pooling risks among gamblers alone is justified. It seems natural in the two categories of risk-taking on which the literature has focused to date.[6] In the first category, the payoffs of each risk-taker are *independent* of those of other risk-takers. For instance, whether one smoker develops cancer is (usually) unaffected by whether other smokers develop cancer. In the second category, the payoffs of each risk taker are *inversely correlated* with those of other risk takers. For instance, casino gamblers can often only win to the extent that other casino gamblers lose. What these two categories of risk taking have in common is that the average payoff corresponds to the expected payoff (in the case of independent risks, this result is obtained for large numbers, as where we consider every smoker in a country). It follows that, in these cases, risk takers as a group are not unlucky. Thus, it seems obvious that if losing gamblers are due compensation, it should be at the expense of winning gamblers, as winning gamblers are, in these cases, necessarily lucky - they are the lucky members of a not unlucky group.

Pooling among gamblers alone seems less appealing, however, when we consider a neglected third category of risk taking. Here the payoffs of each risk taker are *positively correlated* with those of other risk takers. Sometimes similar gambles, or even gambles in general, may *all* turn out very badly (or very well). Bookmakers generally benefit, and punters generally lose out, when football (soccer) matches are drawn. In the wider economy adverse weather conditions may result in crop failure, or currency movements may leave exporters without a market for their products. In such circumstances, compensating the losers of a losing group at the expense of the 'winners' of a losing

[6] I owe this point to an anonymous referee.

group – transferring assets from the least unlucky farmers to the most unlucky farmers, say – is not enough to satisfy egalitarian justice. All members of the group have been disadvantaged relative to another group, that of non-risk-takers.

Now it might be argued that this disadvantaging is through the fault or choice of risk-takers. After all, they have chosen to expose themselves to risk. But it does not seem to me that this is a coherent answer for the all-luck egalitarian. After all, they are, unlike brute-luck egalitarians, committed to saying that bad option luck is not a fair basis on which persons might be disadvantaged. If a person cannot fairly be disadvantaged relative to another because one has bad option luck and the other has good option luck, it is hard to see how a person might fairly be disadvantaged relative to another because one has bad option luck and the other has *no* option luck. Indeed, as Lippert-Rasmussen (2001, 562) notes, egalitarians 'want to be able to tell whether an inequality between two persons is a matter of differential option luck'. If risks are pooled among gamblers alone, inequalities between gamblers and non-gamblers may well be due to option luck, which all-luck egalitarians should find objectionable.

Given the possibility of positively-correlated risks, it seems plausible that compensation for losing gamblers should in principle be available not only from winning gamblers, but from non-gamblers as well. This also solves the grouping problem as it obviates the need to identify some smaller part of the general population as appropriately subject to pooling. I therefore construe all-luck egalitarianism as requiring pooling of risk not just amongst those subject to option luck, and insofar as they are subject to option luck, as would be the case if I simply extended Barry's treatment of quasi-gambles to all option luck. Rather, *risk is to be pooled amongst the community as a whole.* Assuming background equality, each individual is, provisionally, due the expected outcome of their choices, be they choices to expose oneself to option luck or choices to avoid option luck.[7] Of course, as with individual gamblers, gamblers as a group will only be compensated insofar as they have actually suffered bad luck: if gamblers made choices with a low expected value there will typically be no unfairness in them being worse off than non-gamblers. Furthermore, when risk takers as a whole have good luck, they are required to transfer assets to non-risk takers.

As the proposed view attempts to deliver expected values to individuals, it will try to minimize access to choices which create exposure to option luck, which breaks the link between individual holdings and expected values. On this construal, egalitarianism will recommend that gambling and similar practices be directly prohibited and/or have their option luck effects undone ex post.

III. Probabilities

The next task is to clarify the suggestion that all-luck egalitarianism responds to expected value.[8] The expected value of a gamble is found by multiplying the (prudential or moral) value of each possible outcome by the probability of it occurring, and summing the results. The difficult question is which probabilities all-luck egalitarianism should use when assessing the expected value of a gamble.

[7] I say 'provisionally' as this formula must be adjusted for cases of incapacity and scarcity; see below.

[8] For discussion of the difficulty of combining accounts of expected value with *non-compensation* for option luck see Lippert-Rasmussen 2001, 566-70.

Basing judgments on *subjective probabilities* – the odds as actually assessed by the gambler – would be manifestly unfair, amounting as it would to rewarding over-confidence and penalizing under-confidence, characteristics which are not typically chosen by their bearers. But it would equally be unfair to base distributions on *objective probabilities*, as individuals might very well be ignorant of the odds through no fault or choice of their own.[9] This is especially so considering that option luck encompasses not just gambles-proper with expected outcomes that are easily obtainable by mathematical means but also complicated quasi-gambles such as career choices. Essentially the same objection applies to a third possibility suggested by Lippert-Rasmussen (2001, 566) – that of responding to *ideal subjective probabilities*, which are what agents' subjective probabilities would be under conditions of increased rationality and/or information. Individuals no more have access to ideal subjective probabilities than they do objective probabilities, and this may, again, be through no fault or choice of their own.

We can, of course, avoid the problems with expected value by solely engaging in ex ante activities (in particular preventing gambles).[10] But such a strategy would not minimize the influence of luck on distributions as some gambles would occur both prior to and under any prohibitionist regime. Some ex post activity (redistribution) will be required, and this needs to give a role to probabilities.

My suggestion here is that all-luck egalitarianism refers to *warranted probabilities adjusted for non-culpable incapacity*. The core idea is that individuals

[9] This unfairness may arise even where individuals are similarly ignorant; under such conditions they may understandably make different choices arbitrarily (see Vallentyne 2002, 536).

[10] This point was made by Shlomi Segall (private communication).

should receive the outcomes they are warranted in expecting from the choices they make.[11] An assessment of probabilities is warranted if, overall, the evidence available to the individual points towards that assessment.[12] This is not to say that the individual actually does make that assessment of probabilities, nor need it be the case that that assessment of probabilities is factually correct. Warranted probabilities thus differ from both subjective probabilities and objective probabilities, while having some of the intuitive appeal of both. By making our egalitarianism respond to warranted probabilities we can take into account the epistemic limitations that the agent faces, as subjective probabilities promise, while insulating justice from epistemically indefensible beliefs, as objective probabilities promise.[13] Of the previously mentioned probabilities, ideal subjective probabilities are the closest to warranted probabilities, but they differ in that warranted probabilities disregard any information not actually available to the agent, as seems fitting given that the agent may not be culpable for the missing information.

Nevertheless, responding to unadulterated warranted probabilities may be troubling to the luck egalitarian. Some individuals may be incapable of assessing evidence appropriately. Some such individuals' incapacities may have arisen from their choices, and they may have been warranted in expecting the incapacity and (on this prior occasion) capable of recognizing the warrant, in which case any resulting disadvantage

[11] In some cases, two or more expectations may be (equally) warranted. In such cases it seems acceptable to use the mean expectation for distributive purposes. For simplicity I set aside cases of multiple warrant.

[12] This formulation, and much else in this paragraph, draws on Robertson 2011.

[13] The exact specification of when belief in a probability is warranted is not a task of a theory of justice. Just as luck egalitarians typically leave responsibility as a problem to be solved by metaphysicians, so I believe they should leave warrant as a problem to be solved by epistemologists.

appears unproblematic from a luck egalitarian perspective. But others may not have brought about their incapacity. For instance, they may have received a low standard of schooling, or they may have a lower than average natural intelligence (though not so low that they can be considered incapable of choice). It seems clear that the luck egalitarian can not allow individuals to be (dis)advantaged on account of brute luck differences in how they assess evidence.[14] The all-luck egalitarian will, on my interpretation, have similar concerns about incapacities which are the upshot of bad option luck.

For these reasons the core idea should be constrained thus: individuals receive the warranted probabilities of their choices except insofar as individuals' inabilities to recognize which beliefs about probabilities are warranted have arisen through no fault or choice of their own. An inability has arisen through no fault or choice of its bearer insofar as it is (1) a matter of brute bad luck for the bearer and/or (2) the upshot of the bearer's choice that the bearer was either (a) not warranted to expect or (b) warranted to expect but incapable of recognizing the warrant.[15] Insofar as individuals are non-culpably

[14] For an attempt to defuse the distributive effects of variations in individuals' initial dispositions see Vallentyne 2008.

[15] Hence one type of non-culpable incapacity is non-culpable on account of the fact that its bearer made a choice while non-culpably incapacitated, and that incapacity was non-culpable on account of the fact that its bearer made a choice while non-culpably incapacitated, and so on. This is not, of course, an infinite regress: each step must reflect an actual capacity-affecting choice a person has made while non-culpably incapacitated.

incapacitated their ‘choices’ are treated as a matter of luck, and individuals receive what they would have received had they made no choice.[16]

At one extreme, if an individual’s assessment of the outcome of a gamble is unwarranted, but this epistemic shortfall has come about through no fault or choice of their own, their fair share is unaffected by their choice. This is justified because it would be unfair for them to be disadvantaged (or, indeed, advantaged) through no fault or choice of their own, as they would be if warranted probabilities, which they did not and could not base their decisions on, were used to assess their fair share. At the other extreme, if it is either the case that an individual’s assessment of the outcome of a gamble is warranted, or unwarranted but wholly culpably so, their fair share is that which they were warranted to expect. This is justified because either the warranted probabilities coincide with the gamblers’ assessment, or because they fail to coincide but in such a

[16] Peter Vallentyne (2011, 181) suggests the alternative position that, where individuals are not responsible for their false beliefs, ‘the presence of imaginary outcomes can, relative to the value of the foreseen impact, *shrink* the value for which the agent is responsible’. It is hard to see how these beliefs can have such a role within a responsibility-sensitive view without making some worse off than others through no fault or choice of their own. For instance, two individuals might make identical choices, one believing that it has moderately beneficial results, the other believing that it has only slightly beneficial results. If the choices are actually highly beneficial, Vallentyne’s position suggests that the first individual receives the moderate benefit that she anticipated but the second individual only receives the slight benefit that she anticipated (see Vallentyne 2011, 183-4). That the second individual more significantly underestimated the amount of benefit than did the first cannot be described as the former’s fault or choice, as she is, we assume, not responsible for her false belief. This suggests either that responsibility is not as Vallentyne describes, or that it is as Vallentyne describes, but that egalitarian justice does not always respond to responsibility. The position in the text is consistent with both stances.

way that, though the resulting distribution will be based on different probabilities than those used by the gambler, this divergence, and hence any difference of outcome, is the fault of the gambler. Many cases would fall between the extremes, as gamblers' unwarranted assessments would be attributable to a mixture of causes, only some of which are no fault or choice of theirs. For this reason warranted probabilities would often be used, but in mitigated fashion. Where gamblers arrive at unfavourable outcomes on account of unwarranted assessments which are partially culpable (for example, they did not bother to do some simple sums) and partially non-culpable (for example, they were brought up not to value mathematics), they would receive some level of indemnity short of the full indemnity they would have received had their poor judgment been wholly through no fault or choice of their own.

IV. Scarcity

The suggestion so far is that, excepting cases of non-culpable incapacity, gamblers are due the warranted expected value of their gambles. This now needs modification to account for an extreme variant of the earlier observation that gambles as a whole might turn out badly. There may simply not be the resources available to deliver the expected value of gambles (or, in cases of non-culpable incapacity, to deliver the outcome expected had no choice been made). Furthermore, this issue of scarcity is not resolved by my proposal that luck is corrected not just among gamblers but among the population as a whole. While it may be the case that the community is a net recipient of good *brute* luck, it could equally well have net bad brute luck, be brute luck-neutral, or have good brute luck, but not to the same extent as gamblers have bad option luck. In any of these scenarios there will, again, not be the resources to secure the expected value of gambles, and that of non-gambles. So we need some rule to deal with cases where warranted expectations outstrip society's means.

To address this issue we must bear in mind that, from any luck egalitarian perspective, injustice does not issue from individuals being unlucky in an absolute sense – from getting lower total levels of advantage than they would have if fortune did not intervene. Rather, injustice issues from individuals being unlucky in a comparative sense – from getting lower levels of advantage *relative to others* than they would have if fortune did not intervene. Once this is grasped, handling cases where social resources cannot match gamblers' expectations becomes much easier, as our goal is then not the impossible one of handing out resources which do not exist, but rather that of adjusting individual advantage levels so that the burden of the overall shortfall is shared fairly.

Specifically, I propose that, in cases of scarcity, *each individual's entitlement is reduced by the same percentage as the overall shortfall.* Consider a society with two gamblers and one non-gambler, where the gamblers expect, with warrant, 100 units of advantage, but owing to unknown (and unknowable) unfavourable circumstances the winner receives 150 and the loser 20, and the non-gambler is unaffected by luck of any kind and receives 100. The overall amount of advantage in society is 270, which is 30 units, or 10 per cent, less than the expected amount. My proposal is that the fairest result is for each individual to receive 90 units of advantage, so that each individual, including the non-gambler, shares equally in the unexpected gambling shortfall.

The gamblers as a group cannot fairly complain about this outcome as, though they have received a level of compensation for their bad luck which does not fully compensate for their loss in absolute terms, their bad luck relative to the non-gambler has been eliminated. The non-gambler cannot fairly complain about this outcome as, though she has been disadvantaged by other people's gambles, they have, absent compensation, been victims of bad luck relative to her. Had the non-gambler been the victim of bad brute luck, it would be her shortfall that was spread across the community. Without compensation for shortfalls, both gamblers and non-gamblers would be worse off than others, and through no fault or choice of their own. It seems appropriate for surpluses to be pooled in the same fashion as shortfalls, again minimizing unchosen disadvantages.

I will now sum up the position outlined above. All-luck egalitarianism is best approximated by a view that undoes the effects of luck not just among gamblers but among the entire community in order to minimize the distributive influence of both option and brute luck. Subject to a proviso, the view gives individuals entitlements to the expected outcomes of their choices which were warranted except insofar as they are non-culpably incapable of recognizing which expectation is warranted, in which case the initial upshot of the 'choice' is overturned. The proviso is that, where the community is unable to deliver the expected outcomes of individuals' choices that were warranted (or equivalent in cases of non-culpable incapacity), or can deliver more than was expected, the societal shortfall or surplus is shared evenly in percentage terms. The form of all-luck egalitarianism described here makes individuals worse off than others only through their faults or choices to make worse decisions in terms of probabilities to which they have access, not through option luck.

V. Externalities

Is pooling risks between gamblers and non-gamblers, as I have proposed, fair? Daniel Markovits (2008, 287n51; see also Dworkin 1981, 295) claims that ‘enforced risk-pooling would discriminate against those with a taste for risk by making (at least some) gambles practically impossible, thus reducing the range of choice available to risk takers’. But I do not see that it is problematic for the egalitarian to make gambles impossible, given that their primary effect is to create inequalities, and through the medium of luck, at that.

There is, however, a more challenging flipside of the above objection. Just as gamblers can complain that whole-population pooling of option luck prevents them from taking risks, so non-gamblers can complain that it forces risks upon them. As an anonymous referee put it, ‘[t]he objection that will be raised against the author’s proposal to share collective luck with non-gamblers is that the gamblers are then imposing an externality over the rest of the population. More precisely, they impose a risk on others who may not want it’. I say this objection is more challenging as wanting to avoid gambles is not obviously in conflict with securing an equal and luck-neutral outcome in the way that wanting to gamble is.

I accept that my position implies that gamblers as a group may impose externalities of a sort on the non-gambling group, and that this may seem counterintuitive. But note that these externalities are not typically *negative* externalities. Rather, the net effect of the externalities on non-gamblers can be expected to be neutral. Where payoffs fall short of expectations, risk-takers do indeed impose negative externalities on non-risk-takers, but where payoffs exceed expectations, the externalities the risk-takers ‘impose’ on non-risk-takers are positive (a transfer of benefits from gamblers to non-gamblers would be forthcoming). Antecedently, there is no reason to assume that negative externalities are more common than positive externalities. This is because, where it is appropriate to respond to expectations, the relevant sort of probabilities are those which are warranted. Thus, even if gamblers tended to be optimistic about their gambles, and so their payoffs failed to match subjective expectations more often than they exceeded them, my form of all-luck egalitarianism would not on that score recommend a net transfer from non-gamblers to gamblers.

This shows that the kind of externalities we are talking about are not the net negative externalities found in well-known cases of market failure, such as dangerous anthropogenic climate change. Nevertheless, the non-gamblers' complaint may still be thought to have some force. Even if they do not expect gamblers' externalities to make them worse off, they can still complain that they are being subjected to risks that they do not want. Suppose, for instance, that they are very risk averse. In that case, it seems that they are having others' preferences for risk imposed on them against their will.

My position is that this risk imposition is a price worth paying. In some salient cases, at least, the literature seems implicitly to agree. Consider a population consisting of Risk-Taker and Non-Risk-Taker. Suppose Risk-Taker exceeds the speed limit, and crashes, suffering a severe injury. The standard 'abandonment of negligent victims' objection to brute-luck egalitarianism centres on the fact that the view would not require Non-Risk-Taker to assist Risk-Taker, as the latter's bad outcome is a matter of option luck (Fleurbaey 1995; Anderson 1999; Scheffler 2003). But it seems clear that Risk-Taker's outcome is much worse than what she would have been warranted to expect (most times a driver speeds, they do not crash). So according to my version of all-luck egalitarianism, we can require Non-Risk-Taker to assist Risk-Taker, on the basis that the latter has been unlucky in the sense of receiving less than she was warranted to expect. And this is precisely because egalitarianism construed in this way allows Risk-Taker to impose externalities, such as the cost of Risk-Taker's medical treatment, on Non-Risk-Taker. Most writers who consider such cases agree that these externalities are appropriate, albeit on non-luck egalitarian grounds (for instance, on account of equal social status requiring that no one's basic needs be imperiled). This suggests that it is an advantage, not a disadvantage, of my account that it is willing to impose risks on non-risk-takers on the basis of relieving risk-takers of unexpectedly bad outcomes. Furthermore, as this basis is a construal of luck neutralization, the all-luck egalitarian response to the abandonment objection is specifically a luck egalitarian response, not the more typical external imposition on the view.

It may be replied that, while externalities are justified in abandonment cases, that is only on account of the dire straits faced by Risk-Taker. Where a different risk-taker is just made a little worse off on account of unexpectedly bad outcomes, no assistance at non-risk-takers' expense would be justified. Such a response does, however, effectively concede that luck egalitarianism can not itself adequately account for abandonment cases, and must be tempered with some other (perhaps sufficientarian) view in order to deliver the assistance Risk-Taker needs (see Casal 2007, 321-23; Voigt 2007, 404-5).[17] That

[17] An alternative is to reinterpret luck egalitarianism as not objecting to brute-luck inequalities, in which case providing for basic needs unconditionally might not conflict with luck egalitarianism (see Segall 2010; 2012). This is, however, at odds with luck egalitarian's distinctive opposition to the differential distributive effects of brute luck, and problematic in other ways; see Knight 2011. Moreover, even if we allow this

concession is, I think, out of proportion to the concerns about externalities and risk that motivate it. If we are luck egalitarians, why would we think that imposing non-negative externalities on some, for the sake of preventing luck elsewhere, was such a high cost that we should avoid it even at the cost of giving up our view in the abandonment cases that have been central to the debate?

There are relatives of the abandonment cases in which all-luck egalitarianism will offer much less assistance to those disadvantaged through their own actions. Where option luck is barely involved – where the result follows almost directly from choice – little assistance would be forthcoming. This is, I think, plausible, as is suggested by the critics of luck egalitarianism's focus on the negligent victims of option luck, who face unusually bad consequences of 'illegal turn[s]' and 'slightest mistake[s]' (Anderson 1999, 295; Fleurbaey 1995, 40). Their arguments would be much less appealing were the 'victims' engaged in activities for which a severe injury is a common outcome, such as driving at a tree at high speed. In these cases of 'predictably destructive victims', it is doubtful whether we feel that there is an obligation to provide much assistance. But all-luck egalitarianism would still, typically, allow that *some* assistance (paramedic treatment to prevent death or permanent incapacity, say) is due. Even when one drives at a tree, one might miss, so the expected value is still slightly higher than severe injury.

In short, then, all-luck egalitarianism holds that risk-takers may justly impose externalities on non-risk-takers insofar as the former are unlucky. As we have seen, this

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move, it does not yield a luck egalitarian justification for assisting negligent victims. It only removes the conflict between a non-luck egalitarian justification and luck egalitarianism.

equips all-luck egalitarianism to withstand the most familiar external criticism of luck egalitarianism, to wit, that it is too harsh on those with bad option luck.[18]

VI. Conclusion

I have argued that an all-luck egalitarian distribution should have the following features: (a) option luck is neutralized not just by correcting luck among gamblers, but among the community as a whole, because it would be unfair for gamblers as a group to be disadvantaged relative to non-gamblers by bad option luck; (b) individuals receive the warranted expected results of their gambles, except insofar as individuals blamelessly lacked the ability to ascertain which expectations were warranted; and (c) where societal resources are insufficient to deliver expected results to gamblers, gamblers receive a lesser distributive share which is in proportion to the expected results. This form of all-luck egalitarianism allows risk-takers to impose externalities on non-risk-takers, but this seems beneficial in light of the abandonment objection.

Although my focus has been on explaining how all-luck egalitarians should handle option luck, my arguments might have implications for views which are not egalitarian. Pluralistic views which include components concerned with absolute well-being and individual responsibility, such as 'responsibility-catering prioritarianism' (Arneson 1999; 2000), could construe the responsibility component as treating option luck in the same way as all-luck egalitarianism.[19] The responsibility component is usually

[18] Another way of resisting this objection is to hold that individual responsibility for disadvantage decreases over time (see Navin 2011; Tomlin 2013). This view could be combined with all-luck egalitarianism.

[19] For other such views see Segall 2010, ch. 8*;* Temkin 2011; Knight 2009b, ch. 6.

conceived of as being concerned with neutralizing the inequality-producing effects of luck, and Arneson (2000; 2011) describes responsibility-catering prioritarianism as luck egalitarian. If the best construal of luck egalitarianism is the above form of all-luck egalitarianism – something I do not claim to have proven – it would seem to follow that the responsibility component of pluralistic views should be concerned with replacing the effects of option luck with the expected value of individual choices (corrected for non-culpable incapacity and for any resource shortfall or excess in the ways described). We can, then, acknowledge the worry that all-luck egalitarianism levels down and otherwise violates non-egalitarian norms of justice by combining it with concern for absolute levels of well-being in a pluralistic view.

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