



What is Wrong With Winner-Takes-All?

ABSTRACT: *Modern market economies use competitions to distribute a range of social goods. Some theorists maintain that such competitions ought not to generate winner-takes-all outcomes. But the arguments that have been given against competitions with winner-takes-all outcomes fail to find fault with winner-takes-all outcomes per se (or so I argue). Is there, then, anything wrong with winner-takes-all outcomes? I argue that there is: winner-takes-all outcomes are wrong, in at least most distributive competitions, because they do not give people what they deserve.*

KEYWORDS: winner-takes-all, competition, desert, distributive justice

1. Introduction

Modern market economies use competitions to distribute a range of social goods. Such competitions inevitably generate inequalities, and much of the business of distributive justice theory is to distinguish permissible from impermissible unequal outcomes. Some theorists maintain that competitions used to distribute social goods ought not to generate winner-takes-all outcomes (Frank and Cook 1995, Jacobs 2004, Pierson and Hacker 2010, Preiss 2021, Reiff 2009). A competition has winner-takes-all outcomes if and only if it allocates a large proportion of its prizes among a small proportion of the highest performing competitors—its “winners”—and much smaller prizes to all other competitors, including close-second and middle-of-the-pack competitors. The concept of winner-takes-all outcomes has been used in political philosophy, political science, and economics to analyse a variety of distributive competitions including legal cases (Jacobs 2004, Reiff 2009), competitions for educational and job opportunities (Frank and Cook 1995) and polarised labour markets (Preiss 2021). Winner-takes-all outcomes is also a particularly timely concept, often used to analyse distinctive 21st century patterns of wealth and income inequality in many of the world’s largest national economies (Preiss 2021, Pierson and Hacker 2010).

But though theorists of winner-takes-all outcomes are unanimous in their condemnation of winner-takes-all outcomes, it is surprisingly difficult to find among them a successful account of why these outcomes are wrong. As I explain in section 3, existing analyses of winner-takes-all outcomes either take those outcomes to be self-evidently wrong (e.g. Jacobs 2004: 38) or, where such analyses try to explain the wrongfulness of winner-takes-all outcomes, their objections turn out to be aimed at features of some distributive competitions that stand independent of their winner-takes-all outcomes. One might think this is because there is nothing distinctively wrong with winner-takes-all outcomes, and



that the intuition that these outcomes are objectionable reduces without remainder to other more familiar complaints about inequality. However, I argue that there is a way to explain discomfort with winner-takes-all outcomes that identifies a distinctive wrongfulness in winner-takes-all.

My account of the distinctive wrongfulness of winner-takes-all outcomes appeals to a desertist standard of distributive justice. Desertism, at its most general level, maintains that social goods ought to be allocated in proportion to the desert of the recipients of social goods. Desert theorists differ with regard to (among other things) precisely what determines our level of desert, with available options including effort, productivity, social contribution, and due-compensation (for discussion see e.g. McLeod 1996). I argue that winner-takes-all outcomes violate all prominent variants of the desertist standard. This is because winner-takes-all outcomes entail large gaps in outcomes for competitors with only marginal differences in performance and, since distributive competitions use performance to track the desert of their competitors, such competitions award levels of social goods that are disproportional to competitor desert. Though I will not offer a comprehensive defence of desertism, I will argue that it is an intuitively appealing normative standard that governs many distributive competitions, and that it provides an account of the distinctive wrong of winner-takes-all outcomes that is better than currently available accounts.

It is also worth noting at the outset that my goal is not to demonstrate that winner-takes-all outcomes are universally impermissible. In the penultimate section, I discuss limits to the application of desertism, and argue that not all competitions are subject to this standard. Moreover even where desertism does govern the acceptability of competitive outcomes it is possible that other considerations which favour winner-takes-all competition could outweigh desert-based objections. My aim is to explain the *prima facie* wrong of winner-takes-all outcomes. Sometimes all-things-considered judgments of the right way to structure competitions require us to tolerate this wrong.

The article is structured as follows. Section 2 explains winner-takes-all in more detail. Section 3 recounts and rejects available explanations of the wrongfulness of winner-takes-all, generating desiderata for a successful explanation along the way. Section 4 explains desertism, and sections 5 and 6 explain and defend the desert-based explanation of winner-takes-all's wrongfulness. Section 7 establishes the scope of this explanation by considering a variety of limit cases.

2. Winner-Takes-All Outcomes

The concept of winner-takes-all is used to categorize distributive competitions by their outcomes (Frank and Cook 1995, Jacobs 2004, Pierson and Hacker 2010, Preiss 2021, Reiff 2009). Winner-takes-all outcomes are distinguished by a very large difference between awards for the highest-performing competitors and everyone else. Distributive competitions with winner-takes-all outcomes thus produce a distinctive inequality. Though competitions with winner-takes-all outcomes are like other distributive competitions insofar as they generate inequalities between highest- and lowest-performing competitors, they also generate large differences in outcomes between top performers and close runners-up. Examples will help to illustrate this but, as I show presently, the examples we choose and the discipline from which we

draw them will tend to favour one variant of the general category of winner-takes-all category over others.

Winner-takes-all outcomes occur at three levels of systematicity. The least systematic occur when one-time competitions allocate much more of a social good to top-performing competitors than to everyone else (Brown 2015, Jacobs 2004, Reiff 2009). Call such outcomes ‘single-use winner-takes-all outcomes’. Examples of single-use winner-takes-all outcomes cited by Jacobs include fault-based divorce settlements that award no alimony to the party found at fault (Jacobs 2004: 16, 226–231); we could add job to the outcomes of competitions in which no job-share is available.

In some cases any worries we might have about the unfairness of single-use winner-takes-all outcomes can be allayed by considering the social context of the competition that generates those outcomes. Thus a competition for a single indivisible job is less concerning if those who miss out on the job have plentiful opportunities to apply for similar jobs elsewhere. The problem is not so easily solved when winner-takes-all outcomes occur more systematically. This happens when a system of interrelated one-off competitions (e.g. a market) concentrates a large proportion of a good among a small proportion of the most successful competitors. This concentration of the good at the top results in high inequality not just between highest- and lowest-performing competitors, but between top competitors and even close-seconds. Since existing analysis of these winner-takes-all outcomes is primarily economic (foremost Frank and Cook 1995), I will refer to winner-takes-all outcomes at this level of systematicity as ‘economic winner-takes-all outcomes’.

Frank and Cook’s analysis of economic winner-takes-all outcomes includes the outcomes of labour markets in which a small proportion of the field earn high incomes while the rest fall far short of those highest earners. These labour markets do not result in a literal winner-takes-all scenario, where a single winner receives all of the available income, and would more accurately (but clumsily) be labelled ‘those-near-the-top-get-a-disproportionate-share’ markets (Frank and Cook 1995: 3). Frank and Cook’s examples of labour markets with winner-takes-all outcomes include competitions among classical musicians, elite athletes, and novelists, but the example of economic winner-takes-all outcomes that I address throughout the below is the competition for educational opportunities. Places in educational institutions are often allocated by competition, and how one fares in this competition can have significant consequences for lifetime prospects. In university systems with substantial variation in prestige, the ranking of a university can make a considerable difference to the economic returns of university education. This pattern in the returns of education takes a specifically economic winner-takes-all form when there is a very large difference in downstream opportunities between those who attend reputedly top-tier universities and those who attend other universities (Markovits 2019: 11, 183, Dye 2014: 180).

The third and most systematic variant of winner-takes-all outcomes occurs when the distribution of all social goods fits the distinctive winner-takes-all pattern, that is, when the distribution of all social goods in a society allocates a large proportion of those goods among a small proportion of the highest performers in that society, and a much smaller proportion to others in that society (Hopkin and Shaw 2016, Pierson

and Hacker 2010, Preiss 2021 will refer to this third variant as ‘society-wide winner-takes-all outcomes’. The US is typically understood to be the paradigmatic example of a society with social winner-takes-all outcomes. Pierson and Hacker observe an increasingly winner-takes-all pattern in American inequality from the 1970s to today: stagnating incomes for the poorest, modest growth for middle-incomes, huge gains for the highest earners (Pierson and Hacker 2010: 157). Preiss maintains that the current US labour market is the result of another latter 20th century development: a significant reduction of middle-income job opportunities, shifting workers from middle-income skilled labour to low-income low-skilled labour (Preiss 2021: 29–30). These trends contribute to the distinctive pattern of social winner-takes-all outcomes: large gaps not just between the richest and the poorest, but also between the richest and middle-income earners.

Existing theory of winner-takes-all outcomes thus operates with three categories: single-use winner-takes-all outcomes, economic winner-takes-all outcomes, and society-wide winner-takes-all outcomes. This brief discussion should give us enough context to proceed with a discussion of the wrongfulness of winner-takes-all outcomes. Below, I will refer to these categories where helpful, but otherwise assume the general definition of winner-takes-all outcomes with which I opened this section: winner-takes-all outcomes are competitive outcomes with a very large difference between awards for the highest-performing competitors and everyone else.

3. What is Wrong with Winner-Takes-All Outcomes?

There is a consensus among theorists of winner-takes-all outcomes that such outcomes in competitions for social goods are wrong. But wrong in what sense? For present purposes I assume that a successful explanation of the wrongfulness of winner-takes-all outcomes must demonstrate that where distributive competitions lead to winner-takes-all outcomes we thereby have a pro tanto obligation to run those competitions differently, or adjust the outcomes ex post, or use an entirely different, non-competitive mechanism. The pro tanto caveat is needed to accommodate scenarios in which competition for a given social good inevitably leads to winner-takes-all outcomes, yet competition is nonetheless preferable to alternative allocation mechanisms (more on this in section 7). In the following sections I am searching specifically for an explanation of the *presumptive* wrongfulness of winner-takes-all outcomes.

Even with the bar lowered this way it is notably difficult to successfully explain the intuition that winner-takes-all outcomes are wrong. The most familiar normative standard governing distributive competitions—equality of opportunity—is ill-suited for this problem. Equality of opportunity is often taken to comprise two principles (Arneson 1999: 80–81): that the rules governing distribution should be applied impartially, with competitions open to all; and chances of success should not be influenced by social background. But these principles govern opportunities for success in distributive competitions, not the outcomes of such competitions. An education system without discrimination and with fairly-distributed opportunities to win, say, places in elite-tier universities might nonetheless generate winner-takes-

all outcomes. Most theories of equality of opportunity have little to say about whether and why such a system is wrong.

One exception is Jacobs's theory of equality of opportunity (2004). Jacobs has argued for a third pillar of equality of opportunity that he names 'stakes fairness', which governs the acceptability of competitive outcomes. Winner-takes-all outcomes in, for example, fault-based divorce settlements (*op cit.*: 240) and labor markets (*op cit.*: 162), are paradigmatic cases of stakes-unfairness for Jacobs. However, Jacobs's principal objection to these cases is that they leave some in the competition with very little of the relevant social good, which is neither a necessary nor a sufficient feature of winner-takes-all outcomes. For, first, it is possible that a competition with winner-takes-all outcomes—a large difference in outcomes between winners and everyone else—nonetheless allocates whatever we consider to be a sufficient amount to all competitors. And, second, it is possible that competitions without the distinctive winner-takes-all pattern in their outcomes nonetheless allocate insufficient goods to competitors. This worry about Jacobs's account generates a desideratum for any explanation of the wrongfulness of winner-takes-all outcomes. I call this the Not-Too-Little desideratum:

Not-Too-Little: a successful explanation of the wrongfulness of winner-takes-all outcomes must explain why the wrong of such outcomes does not reduce to the wrong of leaving some people with too little.

Not-Too-Little eliminates one other prominent explanation of the wrongfulness of winner-takes-all outcomes. Preiss's primary complaint against society-wide winner-takes-all outcomes in the US is that it falls short of a standard he calls 'just work', which mandates sufficient opportunities for decent employment to ensure that all who work hard will earn a comfortable living (Preiss 2021: 73, 148, and *passim*). But while this might be an accurate complaint about the US it is not a complaint about winner-takes-all outcomes. It is, rather, a complaint about highly-polarized labor markets leaving some people with too little. Thus Preiss's standard would be satisfied by raising living standards for everyone outside of the top 1% regardless of whether the significant gap between the top 1% and everyone else remains.

Another option that is *prima facie* better-suited to the problem is limitarianism, according to which no one should have more social goods than are needed for a maximally flourishing life (Robeyns 2017). Limitarianism's focus on justice requirements at the top end of the income and wealth scale helps us meet Not-Too-Little: if we object to winner-takes-all outcomes on limitarian grounds it will not be because such outcomes leave some with too little, but because they award too much to winners. And because limitarianism is an outcome-focused distributive standard, it also promises to succeed where equality of opportunity fails.

There are, however, two reasons why limitarianism will not help us explain the wrongfulness of winner-takes-all outcomes. First, the limitarian complaint that some competitors get too much is applicable only to society-wide winner-takes-all outcomes and a subset of economic winner-takes-all outcomes, such as the outcomes of labor markets in which top salaries exceed the resources needed for a

maximally-flourishing life (arguably, for example, career competitions among the highest paid finance-management CEOs). But theorists who object to winner-takes-all outcomes often give examples in which winners are awarded much less than this: e.g. the outcomes of competitions for educational opportunities (e.g. Frank and Cook 1995: 11) divorce settlements (e.g. Jacobs 2004: 16) or labor markets among musicians, athletes, or novelists (e.g. Frank and Cook 1995: *passim*). Second, and more hypothetically, even a society with society-wide winner-takes-all outcomes could in principle avoid the limitarian objection. The characteristic feature of winner-takes-all outcomes is a large inequality between top performers and everyone else, including runners-up. This means that a society could have a winner-takes-all distribution of social goods without anyone being superordinately wealthy, provided it still has significant inequality between its highest earners and median-to-high earners.

The problem for the limitarian, then, is that they cannot explain why the distinctive inequality of winner-takes-all outcomes is objectionable independently of the fact that some competitions with winner-takes-all outcomes also generate objectionable forms of superordinate wealth. This observation can be generalized to give us a second desideratum for a successful explanation:

Not-Too-Much: a successful explanation of the wrongfulness of winner-takes-all outcomes must explain why the wrong of such outcomes does not reduce to the wrong of giving some people too much.

How else might we explain the wrongfulness of winner-takes-all outcomes? One might object to competitions with winner-takes-all outcomes on the grounds that they grant winners unfair advantages in other competitions for social goods e.g. high-earners able to give their children advantages in competitive education. But this objection suffers from the same problem as the limitarian attempt: it fails to object to the distinctive inequality of winner-takes-all outcomes. For just as competitions with winner-takes-all outcomes could avoid awarding superordinate wealth, they could also exist in societies where advantages in one competition cannot be bought with the winnings of another. The point is that although both superordinate wealth and paid-for competitive advantage might be objectionable, their putative wrongfulness does not explain the distinctive wrongfulness of winner-takes-all outcomes.

A similar reply can be given to two other candidate complaints about winner-takes-all outcomes. First, one might object to society-wide winner-takes-all outcomes on the grounds that losing in societies with such outcomes not only affects one's material wealth but also one's social status (e.g. shame generated by failure in the job-market). Second, and more generally, non-competitive models of equality of opportunity could also provide objections to winner-takes-all outcomes (e.g. Fishkin 2014: 137–144, Gomberg 2007: *passim*). But complaints about degraded social status and other complaints about competitive distribution fail to identify the distinctive wrongfulness of winner-takes-all.

One might instead think that whatever intuition we have against winner-takes-all outcomes is driven by an aversion to literal winner-takes-all, that is, outcomes that award everything to a single competitor nothing to the rest. Perhaps this is the case, but observing this would still fall short of an explanation of the wrongfulness of

winner-takes-all outcomes. If winner-takes-all outcomes are wrong when they award all available goods to a single competitor, then why? The above two desiderata rule out two possible answers to this question. First, we might think literal winner-takes-all outcomes are wrong because they leave most competitors with nothing. But if this is our explanation of the wrongfulness of winner-takes-all outcomes, it fails to meet Not-Too-Little. Second, we might think literal winner-takes-all outcomes are wrong because awarding everything to a single competitor awards an objectionably large prize to the winner. But this fails to meet Not-Too-Much. We might instead argue that it is wrong to have a binary difference (all or nothing), rather than a difference in magnitude, between the allocations to winners and all other competitors. Perhaps so, but again this merely restates the wrong rather than explains it. Why is a binary difference in competitive allocations wrong? Even if we narrow our category of objectionable outcomes to literal winner-takes-all outcomes, we still lack an explanation of the wrong.

The options considered thus far invoke distributive justice standards that govern the allocation of social goods regardless of whether this is achieved through competitive distribution. An alternative approach (endorsed by, for instance, Agmon 2022, Brown 2015, and Wolff 1998) is to invoke norms that are internal to the practice of distributive competition, that is, norms that we can infer from the function that distributive competitions are designed to serve. One such function is efficiency. One familiar argument in favor of distribution by market competition, for instance, is that the more competitive a market the closer it will come to achieving perfect price-efficiency (by which I mean the optimal ratio of cost of production to utility of the product).

Could we explain the wrongfulness of winner-takes-all outcomes by appealing to this efficiency function of competitive distribution? Certainly there is reason to think that at least some competitions with winner-takes-all outcomes perform particularly poorly by this standard. Frank and Cook locate the primary cause of winner-takes-all markets' distinctive inefficiencies in their "positional arms races" (Frank and Cook 1995: 11): competitor A sees competitor B investing $\$X$ in, say, private tuition, and feels compelled to invest $\$(X+Y)$ to outcompete B; competitor B sees A's investment and increases their own to $\$(X+Y+Z)$; and so on, with the amount of investment needed to remain competitive growing ever larger (op cit: 127). Competitions with winner-takes-all outcomes are prone to positional arms races because the large gap between winners and runners-up generates a strong incentive for competitors not to settle for second place. This produces two sources of inefficiency: wasteful investment by competitors, compelled to sink ever-increasing resources into remaining competitive; and the social cost of competitions overcrowded with competitors who could be doing something more productive (Frank and Cook 1995: 106–109).

However, theorists who object to winner-takes-all outcomes object not that these outcomes are sub-optimally efficient, but rather that the competitions that produce these outcomes are unfair. The relevant difference between fairness objections and efficiency objections can be seen in their respective vulnerability to economic arguments in favor of a competition with winner-takes-all outcomes. Perhaps, for instance, the only available reform to undermine winner-takes-all outcomes in, say, the labor market for classical musicians, would be to adopt a very expensive state-run

programme to provide lucrative jobs for musicians who do not win a place among the very best musicians in the world. If such a programme costs more than what is lost thanks to the winner-takes-all nature of the musician market, then Frank and Cook's efficiency argument leaves us without even a pro tanto objection against this competition. Unfairness objections, however, cannot be dismissed in this way. If we can make good on the intuition that the winner-takes-all classical musician market is not just inefficient but unfair, then we might still have an argument for the musician-jobs programme despite it being less efficient than the status quo market.

Consideration of Frank and Cook's objections to markets with winner-takes-all outcomes generates a third desideratum for any explanation of the wrongfulness of winner-takes-all outcomes. I call this the Not-About-Efficiency desideratum:

Not-About-Efficiency: a successful explanation of the wrongfulness of winner-takes-all outcomes must explain why the wrong of such outcomes does not reduce to the wrong of allocating goods inefficiently

At this stage one might speculate that there is in fact no distinctive unfairness of winner-takes-all outcomes to explain at all. For if all available objections to winner-takes-all outcomes turn out to be objections to something else, the distinctive inequality of winner-takes-all outcomes might be innocent. But we have not yet exhausted all options. As I argue below there is an alternative explanation of the distinctive wrongfulness of winner-takes-all outcomes.

4. Desertism

In the previous section I rejected candidate explanations for the wrongfulness of winner-takes-all outcomes. My alternative appeals to desertism. Desertism is a broad church, and I will keep the version of desertism to which I appeal as ecumenical as possible so as not to stake the plausibility of my argument on any controversial specification of desert. There are some formal aspects most desertists agree on (Brouwer and Mulligan 2019: 2275–2276). First, desertism at its most general maintains, not unsurprisingly, that we ought to receive what we deserve. Second, desert theorists tend to agree on a tripartite structure for the concept of desert: desert is a relation between a subject (something that deserves) an object (that which they deserve) and a desert-base. Third, desert theorists tend to agree to an “aboutness principle”, according to which the relevant desert-base must in some sense be something “about” the desert-subject. Fourth, desert theorists also tend to agree that there must be some sort of “fit” between the desert-base and the desert-object (perhaps winning the race means that I deserve the gold medal, but not the keys to my competitors' houses).

Controversies arise, however, when we try to put flesh on the bones of this broad agreement. One of the most fraught topics is desert-base: what could be a legitimate basis for a desert claim? Desertists argue both about general principles regarding desert-bases and about individual candidate desert-bases. For instance, there is debate about whether and in what sense we must be responsible for the things that

ground our desert (e.g. Cupit 1996, Feldman 1995). Examples of recognizable desert-claims cut both ways on this issue: a criminal might deserve punishment because they are responsible for a punishable act, but restaurant customers who deserve compensation on the grounds that they were served rotten food are not responsible for their food poisoning (Feldman 1995). Regarding individual candidate desert-bases, possibilities include effort, talent, social contribution, due-compensation, moral virtue, and personhood. Some of these have a broader appeal among desert theorists than others. At one end of the spectrum sits contribution, with broad appeal in discussions of desert of social goods (see Brouwer and Mulligan 2019: 2276). At the other sits moral virtue, which is sometimes cited as an example of a desert-base that is difficult to defend (Miller 1996: 281, Olsaretti 2004: 15).

Desert can also be understood either as institutional, in the sense that a person deserves something if they are entitled to it by the institution's rules, or pre-institutional, in the sense that the institution's entitlements are designed to reflect a desert-claim that is independent of the institution. Thus when we say that a job candidate deserves the job because they have performed better than other candidates in the job competition, we invoke an institutional concept of desert, and the question remains whether the candidate also has a moral-claim to the job (Miller 1999: 139). Some desertists have been happy to discuss the desert of social goods in terms of institutional desert (Arnold 1987). Others have argued that desertism in distributive justice requires a pre-institutional concept of desert (Olsaretti 2004: 16).

There are, then, various details of the concept of desert about which desertists differ. My desertist argument (section 5) is designed to be as flexible as possible on these details. Nonetheless, there are limits to this flexibility. I will argue that where a competition is subject to the desertist standard, its outcomes should reflect the desert of competitors. But competitive distribution is better-suited to some desert-bases than others. To see why, it is worth expanding a little on how competitions can be used to track competitor desert.

Competitions that successfully reward desert do so by using competition performance as an indicator of competitor desert. I understand performance to be whatever action or property of a competitor is evaluated through the procedures of their competition in order to rank that competitor relative to other competitors. To illustrate: Olympic divers are ranked by a judging panel's evaluation of their dives; candidates for competitive schooling are sometimes ranked by their answers to a selection test; and football teams in a league are usually ranked by points earned by winning or drawing games. Their respective performances are: diving; answering test questions; winning, losing, or drawing games.

This concept of performance is both narrower and broader than how we might ordinarily understand the term "performance". We might ordinarily think that a competitor's performance is something they enact (a competitive footballer plays, a competitive diver dives etc.). Performance, we might say, must be performed. But my concept of performance extends to evaluations used by competitions that rank competitors by something other than their actions e.g. the evaluation of competitors in beauty pageants. Conversely, my concept of performance is narrower than some everyday uses of the term because it does not include anything that is not used to rank competitors. We might say that a given football

team performed much better this week than last. But if they lost both games, their performances—in the way I understand the term—are the same.

For some desert-bases the link between performance and desert is relatively straightforward. One such desert-base is talent. A well-designed competition (e.g. for educational opportunities) that successfully tests the relevant desert-grounding talent (e.g. academic potential) can allow us to compare competitor-talent and allocate outcomes accordingly. Performance can plausibly indicate effort too, though often it will be difficult to disentangle effort from other factors contributing to performance.

It is not so obvious in contributivist terms. Miller, for instance, argues that job competitions that give the job to the most deserving candidate do so by identifying the candidate most likely to successfully contribute the value that the job is designed to contribute, and therefore most likely to ensure as fair a fit as possible between job performance and remuneration (Miller 1992: 169–174). Presuming a well-designed job competition can identify how likely it is that competitors will complete the tasks associated with the job, competitive performance can track desert-grounding contribution.

However not all desert-bases can be tracked through performance in a competition. Consider personhood (Vilhauer 2009). Since competitive outcomes are unequal, and personhood does not come in varying degrees, goods deserved in virtue of personhood ought not to be distributed by competition at all. Consider also moral virtue. Even our best-designed allocative competitions are likely to be ill-suited to tracking the moral virtue of competitors. In this respect, a desertism that stipulates either personhood or moral virtue as its desert-base will not help us explain the distinctive wrong of winner-takes-all outcomes because it would reject competitive distribution *per se*.

With the exception of these excluded desert-bases, the desertism I presume in the rest of the article is general enough to accommodate all standard variants of economic desertism. I will take desertism to be the principle that social goods ought to be allocated in proportion to our desert. When and why a desertist would object to winner-takes-all outcomes will depend on further particulars of the relevant competition, as I will explain over the next three sections. But before we move on, something needs to be said about the legitimacy of desertism at this most general level, for desertism is one distributive standard among many, and many distributive justice theorists reject it (Goodin 1985, Rawls 1999: 89, Scanlon, 2018).

I submit that a brief consideration of some favorable features of desertism should be sufficient to warrant an appeal to this distributive standard to explain the wrong of winner-takes-all outcomes. Here it will help to cite two ways in which desertism arises outside of distributive-justice theory. First, non-academic formulations of desert often feature in popular political discourse. I have already cited one: claims that socially-significant occupations, such as nurses, deserve better pay. To this we could add campaigns against gendered and racialized pay-gaps that appeal to a principle of “equal pay for equal work”—an allusion, at least sometimes, to the importance of workers getting the pay they deserve—and a meritocratic standard sometimes invoked by politicians who promise a government that will give its citizens what they deserve (for more on meritocratic rhetoric in politics see Sandel 2020).

Second, it is worth noting the popular appeal of desert as a distributive standard. Some desertists cite empirical evidence that indicates that desertism is a popular distributive justice position outside of academia (Miller 1999: 61–92 and Mulligan 2018: 42–62). This evidence suggests that desertism, in some form, has intuitive appeal for many. I suggest that this intuitive appeal of desertism is enough reason to think it a legitimate candidate for explaining the distinctive wrongfulness of winner-takes-all outcomes.

5. A desertist argument against winner-takes-all outcomes

Why would a desertist object to winner-takes-all outcomes? Recall that such outcomes concentrate social goods among a small proportion of the highest performing competitors. Because of this concentration of available goods, winner-takes-all outcomes generate large inequality between the highest-performing competitors and everyone else. And this large inequality includes not only inequality between the highest and lowest performing competitors but also significant gaps in awards for top-most competitors and runners-up. This means that in competitions with winner-takes-all outcomes even those competitors who perform very well but do not quite break into the highest performing bracket are awarded much less than elite competitors. This means further that small differences in performance in these competitions lead to very large differences in allocation. In this respect, difference in reward for first- and second-place competitors is disproportional to the difference in their performance. And since performance is how distributive competitions track the desert of competitors, a competitive allocation of goods that is disproportional to performance is thereby disproportional to the desert of competitors. Hence whenever winner-takes-all outcomes occur it is very likely that the competition is failing to give competitors what they deserve ('very likely', not guaranteed, for reasons I will explain in a moment).

We can illustrate this by considering again competition for university places. In university systems with strong prestige hierarchies, very fine margins in academic ability can make the difference between winning a place at the most prestigious universities and winning a place at a second-tier university. And in some societies this makes a big difference to downstream share of social goods. In such cases small differences in competitive performance are rewarded with very large differences in goods allocation. This disproportionality means that some competitors are not receiving the opportunities they deserve, either because winners are receiving much more than they deserve, or runners-up are receiving much less than they deserve. This is the wrong of winner-takes-all outcomes.

Does this explanation of the wrongfulness of winner-takes-all outcomes meet the desiderata identified in section 3? Consider first Not-About-Efficiency, which stipulates that a successful account of the wrongfulness of winner-takes-all outcomes must explain why the wrong of winner-takes-all outcomes does not reduce to the wrong of allocating goods inefficiently. The desertist explanation of the wrongfulness of winner-takes-all outcomes meets this desideratum because its complaint about disproportionality could be sustained even if we could somehow show that a competition that yields winner-takes-all outcomes is the most efficient

way to distribute university places. The complaint is that competitors granted winner-takes-all outcomes are not rewarded in a way that is proportional to their desert. This complaint stands regardless of whether the system is optimally efficient.

The other two desiderata require a little more discussion. One, Not-Too-Little, maintains that a successful account of the wrongfulness of winner-takes-all outcomes must explain why the wrong of winner-takes-all outcomes does not reduce to the wrong of leaving some people with too little. The other, Not-Too-Much, maintains that a successful account for the wrongfulness of winner-takes-all outcomes must explain why the wrong of winner-takes-all outcomes does not reduce to the wrong of giving some people too much. One might think that the desertist objection must fail to meet at least one of these desiderata. For the objection that some competitors do not receive what they deserve amounts to an objection that some competitors receive either more or less than they deserve, which means, one might think, that the desertist objection reduces either to the objection that some competitors receive too much or to the objection that some receive too little (or both).

But the too-much or too-little complaints derived from the desertist objection are different from the limitarian and sufficiency complaints considered in [section 3](#). The latter invoke a standard of what would count as too great or too small a reward for any competitor, regardless of their performance. If the outcomes of a competition leave someone with too little in Jacobs's sense, this is because that competitor falls below a minimal threshold level of a social good that no one should fall below (Jacobs 2004: 16). Similarly, if the outcomes of a competition leave someone with too much in Robeyns's limitarian sense, they have more than Robeyns thinks anyone should have (Robeyns 2017). These too-much and too-little thresholds have universal scope. This is not so in the case of the too-much or too-little complaints derived from desertism, because these complaints are based on judgments of what a particular competitor should receive relative to their performance. The desertist complaint about, say, a winner in winner-takes-all outcomes receiving too much is not that no one should receive that much, but rather that this particular competitor, with their particular level of performance, does not deserve a reward that is so much larger than the reward for competitors who almost, but did not, perform at a top-tier level.

We might worry instead that performance evaluations in actually-existing distributive competitions are always unlikely to be accurate indications of desert. As I explained in [section 4](#), I understand performance to be whatever action or property of a competitor is evaluated through the procedures of their competition in order to rank that competitor relative to other competitors. There are three reasons to think that if this is what performance is, performance evaluations and desert at least sometimes diverge in real competitions.

First, some competitions feature competitors with only marginally different performances. Prospective students competing for a university place often have imperceptibly small differences in academic ability. Without implausibly precise measures of competitive performance, the competition for the university place is likely to sometimes choose a candidate who has performed marginally worse than the best candidate.

Second, sometimes competitors outperform their opponents yet still fail to win by the rules of the competition. In many sports, games can occur in which one

competitor played much better than their opponents despite losing due to a momentary oversight or a fluke from their opponent. In such cases we sometimes say of the losing team that “they deserved to win” or at least that “they didn’t deserve to lose”.

Third, even where competitions are successful in identifying the best-performing competitor, it is still possible that performance fails to track desert. In [section 3](#) I stated that my own desertist argument is ecumenical in the sense that it does not take a particular position within the broad desertist church. But wherever luck partly determines a competitor’s performance (e.g. variable headwinds disadvantaging some cyclists but not others in a road race), objections will be raised by those desertists who maintain that a person’s desert-base must be something for which they are responsible. Responsibilist desertists might argue that if performances are subject to the interference of luck, then performances cannot be a legitimate desert base. It seems, then, that my putatively ecumenical argument can only survive by taking a stance on desertism’s responsibility debate.

I accept that luck often influences performance, and that some of our most important distributive competitions sometimes fail to evaluate accurately the relative performances of competitors. But these worries should not lead us to abandon the desertist argument. If a competition’s performance evaluations fail to track desert (either because the evaluations are inaccurate or because desert-bases must exclude luck) then that competition fails to meet the desertist standard no matter how it distributes its prizes. But we are trying to understand what, if anything, is distinctively wrong with winner-takes-all outcomes. For these purposes we can grant for the sake of argument that the competitions we are concerned with have successfully linked performance to desert, at least to the degree that we need them to in order for there to be no transgression of desertist standards. Say that university admissions competitions have developed highly sophisticated procedures for discerning very small differences in performance between candidates. And say that those same competitions have found ways to minimize the influence of luck on performance by, for instance, using multiple evaluations in addition to an interview, or running many interviews, reducing the likelihood that one unlucky day would ruin the overall performance of the most deserving competitor. The question remains whether competitions that have perfected these procedures and aligned desert and performance as much as possible would nonetheless be objectionable if they led to winner-takes-all outcomes.

I submit, then, that the desertist argument successfully identifies a distinctive wrong in winner-takes-all outcomes: winner-takes-all outcomes in distributive competitions almost always fail to meet the desertist standard, because winner-takes-all outcomes almost always consist of an allocation of goods that is disproportional to the desert of competitors. Why “almost always”? There are exceptions, but only in highly implausible scenarios. It is not impossible that winner-takes-all outcomes might proportionately reflect a large gap in performance between elites and second-tier performers. Perhaps the world’s highest earning classical musicians really are 100 times more talented than the world’s second-best musicians. This seems highly unlikely, but cannot be ruled-out *a priori*. This exception aside, in almost all cases a winner-takes-all gap in reward between elites

and close-seconds is disproportional to their differences in performance, and thereby their desert.

6. Proportionality

One further objection requires detailed discussion. One might argue that desertism requires only ordinal proportionality, not cardinal, and that winner-takes-all outcomes are consistent with the former. Say that a competitive system for the allocation of salaries successfully ranks all competitors in order of their relative desert. Such a system could achieve ordinal proportionality by awarding the highest salary available to the highest-performing competitor, the second-highest salary to the second-best performer, and so on. But doing so is consistent with winner-takes-all outcomes because the size of the gap between first and second place salaries would not affect the proportionality of salary-position to competitive-ranking. Winner-takes-all outcomes are inconsistent with proportional rewards only if proportionality is understood cardinally, that is, if proportional rewards here means that the quantity of goods allocated must be proportional to a competitor's level of performance. In short, winner-takes-all outcomes violate desertism only if the desertist requires that we attend to the size of the gap in desert-tracking performance between elites and everyone else. Why think that desertists should be committed specifically to cardinal proportionality?

The distinction between ordinal and cardinal proportionality is rarely acknowledged by desertists. One exception is Miller, who appeals to intuitions about retributive justice where it seems natural to say that punishments are deserved only if they are proportional to offences (Miller 2003: 34; see also Von Hirsch 1992). But without some explanation of why we can legitimately borrow intuitions from retributive justice for desert-based distributive justice, this will not get us very far. Arnold claims that cardinal proportionality reflects a commitment to the 'fit' between desert-base and award that is baked into the very idea of desert (Arnold 1987). But Arnold's claim is specific to institutional desert, and thereby specific only to institutions the rules of which stipulate desert in cardinally-proportional terms. Without institutional grounds for cardinal proportionality, appeal to the fittingness relation between desert-base and award merely brings us back to the question of whether and why cardinal proportionality must be a feature of this relationship.

Reiff argues that fairness per se, and not just desertism, requires cardinally-proportional outcomes (Reiff 2009). Reiff focuses on what fairness requires regarding the distribution of a good once different parties' moral claims to the good have been determined. The crucial question, according to Reiff, is what should be done in cases where two or more parties have different strengths of moral claim to the good. According to Reiff, equal respect for all with a claim requires that we satisfy all claims in proportion to their strength; equally strong claims are properly acknowledged with equal allocations, claims stronger than others are properly acknowledged with a larger amount of the good, and weaker claims are properly acknowledged only if they are given some (albeit smaller) amount of the good (Reiff 2009: 12). To do otherwise constitutes unfair treatment of the claimants. Thus, according to Reiff, when two claimants in a

court case have near-equal claims to a disputed good, yet the winner of the case receives most or all of the good, the losing claimant may legitimately complain of unfair treatment on the grounds that the strength of their claim to the good has not been properly acknowledged.

Reiff gets us closer to committing the desertist to cardinal proportionality, but there remains a problem. Reiff is concerned with cases in which we know that the relevant parties have unequal but non-zero moral claims to a good. For Reiff, the fact that all parties have at least some claim to the good is enough to mount an argument against winner-takes-all outcomes. But this argument does not give us reason to object to winner-takes-all outcomes when the competitors' moral claims to the prize are uncertain, *a fortiori* when second-place competitors have no moral claim to the prize. If the rules of a given distributive competition stipulate winner-takes-all outcomes, and this is consented to by all participants, then the mere fact that a second-place performer performs almost as well as the winner does not generate a moral claim for the runner-up. For example, literal winner-takes-all outcomes in a poker tournament could be unobjectionable if all players have appropriately consented. If close performances between first- and second-place are not enough to establish a claim for the runner-up in this case, why think that close-seconds in competitions for jobs, university places, or other putatively unfair winner-takes-all competitions have a legitimate complaint?

The answer is, again, provided by desertism. Recall that the desertist maintains that a distributive competition ought to allocate competitors the level of the good they deserve. In this respect desertism provides us with a source for the moral claims of competitors: in distributive competitions governed by desertism, a competitor's moral claim to the relevant good is determined by their desert, which the competition tracks through competitive performance. Hence in competitions that are designed to give competitors what they deserve, each competitor has a claim the strength of which reflects their performance. Were such a competition to award a winner, say, 10 times as much as a second-place competitor with only marginally lower performance, the second-place competitor may legitimately complain that the strength of their desert-claim, is not adequately recognized by the reward allocation. In this respect, competitors in competitions that achieve ordinal-proportional but not cardinal-proportional outcomes have recourse to a fairness complaint that is underwritten by desertism.

One might object that cardinal-proportionality requires an impossibly precise measure of a competitor's desert, and that ordinal-proportionality is a second-best but more practicable alternative (see Miller 1999: 153). But ordinal-proportionality is not second-best. If exact measures of desert are impossible, then competitions could use precise-as-possible approximates to achieve near-as-possible cardinal proportionality rather than give up on cardinal proportionality altogether. And if loosening the proportionality requirement to an *approximate* judgment seems to be giving up too much, recall that the goal that is being served by desertism in this article is to identify a wrongful disproportionality in winner-takes-all outcomes. In many of the examples winner-takes-all outcomes considered in this article, even an approximate judgment of the comparative merit of competitors is enough to establish that large gaps in rewards in these competitions are not cardinal-proportional to gaps in competitor desert.

7. Limit cases

In this section I expand on my account of the wrongfulness of winner-takes-all outcomes by considering the limits of its application and some lessons it provides for the design of distributive competitions. This should help us further understand when and why winner-takes-all outcomes are objectionable, and what might be done about this.

First it will help to establish how the desertist argument against winner-takes-all outcomes avoids overreach. A successful explanation of the wrong of winner-takes-all outcomes would not indict innocent cases of winner-takes-all outcomes, such as a winner-takes-all poker tournament. How does the desertist distinguish innocent from guilty instances of winner-takes-all disproportionality?

It is tempting to suggest that the desertist objection to winner-takes-all outcomes applies only to distributive competitions. But the problem with this solution is that it needs a robust distinction between distributive and non-distributive competitions. The most obvious way to attempt this would be to suggest that a competition is distributive only if it allocates a social good. But if our list of social goods includes money and social esteem, then many seemingly innocent winner-takes-all outcomes would fall into our category of objectionable distributive competitions. For instance, poker tournaments could have winner-takes-all cash prizes, and elite-level sporting contests could generate large levels of esteem for the best contestants and much lower levels of esteem for second-best contestants.

Better, then, that we distinguish objectionable winner-takes-all outcomes not according to the nature of the relevant prize but according to the function of a given competition with winner-takes-all outcomes, and specifically whether that function is governed by the desertist standard. Not all competitions are designed to give competitors what they deserve. Sports and games tournaments with cash prizes need not be guided by a desertist standard. A poker tournament with a single cash prize for the winner might use their prize structure to instead, for instance, incentivize good players to participate, and without the need to take into consideration the relative desert of each contestant (Brown 2015). Where this is the case, the desertist standard generates no objection to winner-takes-all outcomes.

For any competition where we think desertism might apply, the case must be made for thinking that that competition ought to allocate by desert. There are a variety of ways one can make this case. A contributivist, for instance, would maintain that desertism applies wherever we should be rewarding people for their social contributions. We might think, for instance, that labor markets ought to allocate salaries that are indexed to the social value of workers' contributions (see e.g. Miller, 1996). In this regard a contributivist might argue that since winner-takes-all labor-market outcomes are disproportional to contribution, they are both subject to and fail to satisfy the desertist standard.

In other cases goods are allocated according to the desert of competitors not because they have earned the relevant good but because that good is used as a way to recognize the level of merit of the competitor. Prizes in sports and games sometimes operate in this way, but prizes are also a good test of the limits of the applicability of desertism's proportionality requirement. Consider a chess tournament with a single

prize of \$10,000 for the winner. With no mechanism for judging whether this amount is proportional to the performance of the winner, and no comparison possible between first- and second-place prize (there is no second-place prize), desertism's proportionality requirement is a non-starter. But if the same tournament includes prizes for second and third-place, it might be considered unfair to award second- and third-place much smaller amounts e.g. \$50 and \$25. If we understand these prizes as a way of recognizing the merit of the competitors, we have an explanation of why this prize-pattern seems unfair: the first-place competitor is highly unlikely to be so much better than the difference between the prizes indicates. In other words, proportionality between prize and performance becomes relevant once we introduce additional prizes to recognize competitor merit across multiple competitors, and disproportionality becomes objectionable where there are very large differences in the recognition afforded to winners and to close-runners-up.

This prize example also illustrates how the desertist objection could be cited in cases of either institutional or pre-institutional desert. The unfairness complaint of a second-place competitor in this scenario depends on whether the tournament has created a second-place prize to recognize the quality of the performance of the runner-up. This means that the complaint that they have not received a prize they deserve depends on whether the relevant institution—the competition—is using prizes in this way, and their complaint is thereby indexed to institutional desert. But in other scenarios, the disproportionality objection could be raised on grounds of pre-institutional desert. Contributivist complaints about winner-takes-all gaps between elites and everyone else in labor markets are complaints about workers' desert that, they would argue, exists regardless of whether the market has been designed to recognize their desert.

There is much room for differences of intuition in these cases. The point of citing them is not to argue that we must abide by desertism in these competitions. Rather, the point is to illustrate the different ways in which the objection to disproportional rewards could be applied, provided we can show that a given competition is subject to the desertist standard. In this respect the general lesson to learn from the desertist argument is conditional: if a given competition ought to reward its competitors according to their desert, then winner-takes-all outcomes of that competition are wrong. In such cases there are debates to be had about whether and why the competition is subject to the imperative to allocate by desert, and such debates will depend on broader discussions about proper institutional design of our most socially-significant competitions, including discussion of the purpose and proper functioning of, say, a tertiary education system.

Even where there is agreement that desertism applies to a competition, other normative standards might apply. Research funding competitions are good examples of this. We might take ourselves to have shown that desert matters for the design of some particular funding competition, and on this basis propose that the funding available be distributed without large winner-takes-all inequality between first- and second-place. But giving applicants what they deserve is just one standard governing the distribution of science funding. Others include the value of 'exploitation' (investing as much resource as possible into one area) and 'exploration' (encouraging innovative projects that depart from well-established research themes; Sakamoto 2023). Such values might


give us reasons to concentrate available funding in a small number of projects rather than spread it more evenly over many projects.

It is worth repeating that my goal has been only to find an explanation of the presumptive wrongfulness of winner-takes-all outcomes. Desert considerations get us to this goal, but no further. Thus the desertist argument gives us a way of understanding why highly performing runners-up in some competitions have legitimate complaints, even if an all-things-considered judgment of the relevant competition would accept winner-takes-all outcomes. But it is also worth noting that if other values relevant to a competition mean that the right prize structure should be winner-takes-all, a close-runner-up's desert-based claim to the prize is outweighed but not thereby overridden (I borrow this terminology from Broome 1990). This means that even where the all-things-considered right distribution of prizes takes a winner-takes-all pattern, the runner-up may nonetheless complain that the strength of their desert-based claim has been insufficiently satisfied, and that the competition has treated them unfairly. Where this is the case, it is an unavoidable cost of our inability to reconcile all legitimate goals of distributive competitions.

Finally, there is one category of competition that presents an additional difficulty even where we can demonstrate that desertism applies and that it overrides other normative standards: competitions for indivisible goods. The problem with indivisible goods is that winner-takes-all outcomes appear to be inevitable: if there is only one job, then only one candidate can win. Must we simply tolerate the unfairness here too? Not always. One response would be to limit the significance of those winner-takes-all outcomes that competition for indivisible goods generates. Here it helps to recall the three categories of winner-takes-all outcomes outlined in section 2. A single, discrete competition for a job inevitably generates single-use winner-takes-all outcomes, but need not contribute to economic winner-takes-all outcomes if, for instance, there are plentiful similar job opportunities for those who miss out on the job. A fortiori, indivisible goods that inevitably lead to single-use winner-takes-all outcomes need not inevitably lead to society-wide winner-takes-all outcomes.

In this regard, one solution to the inevitability of winner-takes-all outcomes in competitions for indivisible goods is to take measures to prevent a competition with single-use winner-takes-all outcomes exacerbating more systematic forms of winner-takes-all outcomes. Candidate measures could include those that would reduce the hoarding of downstream gains accrued by success. This might be achieved in competitions for university places, for example, by increasing the number and variety of opportunities for income, wealth, social esteem, and upward social mobility, and thereby decrease the costs of missing out on a top-spot in society's most significant competitions. Mechanisms to decrease the cost of falling short in university competition could include entry-level apprenticeships and paid in-work training schemes that do not require a university-degree, or careers pathways above entry-level that allow career development through job or industry-specific training and not through academic credentials (Fishkin 2014: 210). Such measures require a more thorough evaluation than I have space for here, but one lesson we can draw from the foregoing discussion is that the value of desert lends support to these proposals.

We have, then, an explanation of the distinctive wrongfulness of winner-takes-all outcomes. When a distributive competition produces winner-takes-all outcomes, it almost always allocates goods disproportional to performance, which means that the competition's goods allocation almost always fails to consistently reflect competitor desert. This failure generates unfairness claims on behalf of competitors that ought to be taken into consideration along with other normative standards that govern the design of distributive competitions and their outcomes.

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References

- Agmon, Shai (2022) 'Two Concepts of Competition' *Ethics* 133(1) 5–37
- Arneson, Richard (1999) 'Against Rawlsian Equality of Opportunity' *Philosophical Studies* 93(1)
- Arnold, N Scott, (1987) 'Why profits are deserved' *Ethics* 97(2)
- Broome, John (1990) 'Fairness' *Proceedings of the Aristotelian Society* 91, pp.87–101
- Brouwer, Huub and Thomas Mulligan (2019) 'Why not be a desertist?' *Philosophical Studies* 176(9) 2271–2288
- Brown, Alexander (2015) 'Principles of stakes fairness in sport' *Politics, Philosophy and Economics* 14(2) pp 152–186
- Cupit, Geoffrey (1996) 'Desert and Responsibility' *Canadian Journal of Philosophy* 26(1), 83–99
- Dye, Thomas (2014) *Who's Running America? The Obama Reign* New York: Routledge
- Feldman, Fred (1995) 'Desert: Reconsideration of Some Received Wisdom' *Mind* 104 (413) pp.63–77
- Fishkin, Joseph (2014) *Bottlenecks: a New Theory of Equality of Opportunity* Oxford University Press
- Frank, Robert and Philip J Cook (1995) *The Winner-Take-All Society* Penguin, New York.
- Gomberg, Paul (2007) *How to Make Opportunity Equal: Race and Contributive Justice* Blackwell
- Goodin, Robert E. (1985) 'Negating Positive Desert Claims' *Political Theory* 13(4), 575–598
- Hopkin and Shaw (2016) 'Organized Combat or Structural Advantage? The Politics of Inequality and the Winner-Take-All Economy in the United Kingdom' *Politics and Society* 44(3), pp.345–371
- Jacobs, Lesley (2004), *Pursuing Equal Opportunities* Cambridge University Press
- Markovits, Daniel (2019) *The Meritocracy Trap* Penguin Press
- McLeod, Owen (1996) 'Desert and Wages', *Utilitas* 8: 205–221
- Miller, David (1992) 'Deserving Jobs' *The Philosophical Quarterly* 42(167) pp.161–181
- Miller, David (1996) 'Two Cheers for Meritocracy' *The Journal of Political Philosophy* 4(4) pp.277–301
- Miller, David (1999) *Principles of Social Justice* Harvard University Press
- Miller, David (2003) 'Comparative and Non-comparative Desert' in Serena Olsaretti (ed.) *Desert and Justice* Oxford University Press. Pp.25–44.
- Mulligan, Thomas (2018) *Justice and the Meritocratic State* Routledge
- Olsaretti, Serena (2004) *Liberty, Desert, and the Market* Cambridge University Press
- Pierson, Paul and Jacob S Hacker (2010) *Winner-Take-All Politics* Simon and Schuster
- Preiss, Joshua (2021) *Just Work For All*, Routledge
- Rawls, John (1999) *A Theory of Justice* Revised ed. Cambridge: Belknap Press
- Reiff, Mark R (2009) 'Proportionality, winner-take-all, and distributive justice' *Politics, Philosophy, and Economics*, 8(1)
- Robeyns, Ingrid, (2017) 'Having Too Much' *Nomos* 58, 1–44

- Sakamoto, T. (2023). *Is Lottery a Better Way of Resource Distribution Than Baseline Funding?* *Philosophy of Science*, 1–40. doi:[10.1017/psa.2023.49](https://doi.org/10.1017/psa.2023.49)
- Sandel, Michael (2020) *The Tyranny of Merit* Penguin Books.
- Scanlon, TM (2018) *Why Does Inequality Matter* Oxford University Press
- Vilhauer, Benjamin (2009) ‘Free Will Skepticism and Personhood as a Desert Base’ *Canadian Journal of Philosophy* 39(3) pp.489–511
- Von Hirsch, Andrew (1992) ‘Proportionality in the Philosophy of Punishment’ *Crime and Justice* 16, pp.55–98
- Wolff, Jonathan (1998) ‘The ethics of competition’. In Parry G, Qureshi A and Steiner H (eds) *Freedom and Trade, Volume Three: The Legal and Moral Aspects of International Trade*. London: Routledge.