

The ownership of natural resources, particularly land, is of the utmost importance for understanding many economic problems our world faces today. Developed countries are undergoing housing crises, and have been for some time. The ratio of the median income to the median-priced home or apartment has risen for decades. This means that many people have to spend a greater percentage of their incomes on housing, burdened by real estate debt. Other people cannot get on the so called “property ladder” at all, and are forced to either rent or live with their parents. Almost one third of Americans between 18 and 34 live with their parents, a share that is higher in almost all European countries, and over half in many.¹ High housing prices contribute to the financialization of the economy, prevent family formation,² and divert capital from more productive uses.

There are even more pernicious systemic consequences of high housing prices. The housing market, especially in the United States, is one with a history of exclusion. Many of the best neighborhoods legally barred African Americans until well into the 1950s and 1960s. Some of the effects of this institutionalized racism persist today. The failure of the most productive and dynamic cities to add more housing has prevented people from moving there to pursue better opportunities, creating a sizable drag on the entire country’s GDP.³ Housing is most importantly a key driver of wealth inequality. Piketty (2014) found that inequality has been increasing since the second world war because labor’s share of output has been decreasing relative to that of capital, and that real estate is majority of the capital stock in wealthy countries. But subsequent critiques of Piketty found that he underestimated the role of housing in inequality—one paper found that higher prices for real estate account for all of the increase in inequality that has been seen in rich countries in living memory.⁴

Real estate has two components: land and a structure built on the land. The fundamental cause of the problems I identified above is land, not structures. Structures slowly depreciate because of use and exposure to the elements, so the increase in housing prices is entirely due to increases in land prices. Land is thus at the center of a lot of problems involving distributive

¹ Pew (2023)

² Clark (2012), Flynn (2013), Christophers (2018).

³ Hsieh and Moretti (2019).

⁴ Rognlie (2015).

justice. But its role in the theory of distributive justice has been either seriously misunderstood, or entirely neglected. It has been entirely neglected by patterned theorists of distributive justice, including Rawlsians, prioritarrians, and egalitarians. Patterned theories hold that a distribution of goods is just if and only if it instantiates a favored pattern. No patterned theory of distributive justice could be correct, for the simple reason that patterns are multiply realizable—there will always be two or more realizations of a pattern that differ with regard to justice.⁵ But more importantly for our purposes, patterned theories do not see a normative difference between natural wealth (land) and produced wealth (buildings and other capital). Rather, they view all of the things to be distributed as homogenous.

The distinctive importance of land has been seriously misunderstood by the other main approach to distributive justice: historical theories. Such theories hold that a distribution of goods is just if and only if the process by which that distribution actually came about satisfies certain conditions. A historical theory has two parts: a theory of original acquisition and a theory of transfer. The theory of original acquisition is the focus of this paper.⁶ Locke and Nozick have developed the two canonical views. But Locke makes some key mistakes in his thinking about natural resources that Nozick's account inherits. The key mistake, which will become clear as the paper proceeds, is that they failed to see that the economic value of a natural resource is not created by the person who owns the resources, but rather by the efforts of the entire community. Laboring to improve a natural resource can give the laborer an entitlement to the value of his improvement, but not to socially created natural resource value. Land's value—unlike the value of buildings—should be socially, not privately, enjoyed. My aim is to illuminate the mistake made by traditional historical theorists of distributive justice by putting their views into conversation with the writings of Henry George, whose main idea was that governments should tax natural resources but not improvements made to natural resources. George was one of the most influential Americans of the 19th century, though he has been all but forgotten by contemporary social theorists. At the turn of the century, his economic thought had influence

⁵ You can make everyone equal by leveling down or by leveling up, for instance.

⁶ I have developed a theory of transfer in other work Forrester (ms). The details of this theory of just transfer are not important here. The core of the view, though, is that a change in the distribution of resources is permissible only if it is Pareto improving—making some people (usually the transferring parties) better-off without making anyone worse-off. The view is that only win-win transformations of a just distribution result in a just distribution. Given this (weak) principle of justice in transfer, it is of the utmost importance to correctly understand what makes an original distribution just or unjust.

around the world, leading to political movements and institutional change in some US states, the United Kingdom, Ireland, Hong Kong, Australia, Singapore, Norway, South Korea and other countries. Some American cities, like Detroit, are revisiting Georgist ideas as solutions to their problems today.⁷

Here is how the paper will proceed. First, I will review Locke’s theory of original acquisition and situate the view in its historical context. Then, I will explain why the key “labor mixing” argument fails. Locke could not have seen the flaw in this argument because identifying it requires analytical tools developed a century after his death. Third, I discuss George’s efficiency- and justice-based arguments for rejecting private ownership of land. In the fourth section I develop my official view of original acquisition, and discuss an objection to that view from the luck egalitarian in the fifth section. I conclude by showing how my approach would solve the social problems that I identified above.

1. Mixing Labor with Natural Resources

The original state of ownership, according to Locke, is that each person owns themselves (§27), and everything that is not a human person is owned in common by everyone (§25). Locke’s *First Treatise of Government* argues, against Robert Filmer’s *Patriarcha*, for both of these claims. I am happy to grant Locke’s arguments against Filmer—common ownership of the world and sole ownership of oneself seems an eminently reasonable place to begin. The first claim embodies a liberal respect for individual autonomy: no one can be born as a slave to anyone else. The second claim, for Locke, has a theological basis: God gave the world to everyone in common. If one rejects this theological claim, one should, at least, think that the world is initially unowned by anyone. How could someone start out with a claim to a part of nature just in virtue of who they are, before they do anything or before anything is gifted to them?

Locke develops an argument purporting to show how something commonly owned can become privately owned, without the consent of all of the common owners. The argument takes place in two stages. The first is the *argument from eating* (§26-28):

⁷ The Economist (2023).

1. We have to eat to survive.⁸
2. It is impossible to obtain the consent of every other person before eating.
3. We are justified in eating things we find in the commons, because we have to eat to survive.
4. Therefore, there must be some mechanism by which we can become entitled to previously commonly owned things, without the express consent of others.

What's more, when something is eaten, it eventually becomes part of us, and we become entitled to it because we are self-owners (§26). After introducing this argument, Locke identifies the mechanism. The *argument from labor mixing* holds that when someone mixed his labor with something, he "joined" his labor to the thing, and thereby makes it his property (§27).⁹ Locke thinks that labor mixing establishes property rights because since a man owns himself, he owns the labor of his body, and he is entitled to "the work of his hands." The argument from eating shows that appropriation must be possible, and the argument from labor mixing identifies the point in the process where appropriation occurs. To Locke it is when one mixes one's labor with something that it becomes one's own, not when one digests the thing, or eats it, or when one prepares it (§28).

Once this mechanism has been identified, Locke extends his account of appropriation beyond things that are eaten. We do not eat and digest land itself, so land does not eventually become part of us like the fruits of the land do. Yet, the labor mixing mechanism operates here too. When we improve the land for cultivation (by digging canals, adding fertilizer, tilling, etc.) we mix our labor with it. Since we own our labor, we then come to own the bit of what was previously commons that our labor is mixed with.

There are two famous provisos in Locke's account. First, in appropriating something from the commons, one must not let anything be wasted (§31, 38).¹⁰ Second, there must be "enough and as good" left for others after one appropriates. This condition holds for both land (§33-37) and the fruits of the land (§28). Locke mentions this proviso very early in the account,

⁸ This argument can be run for other essential biological functions, like drinking, breathing and defecating (on the latter see Ephraim 2021).

⁹ Locke always uses masculine terms to refer to the appropriator; it is unclear whether he thought that women could appropriate.

¹⁰ This too has a theological justification, and plays an important account in Locke's account of the emergence of money. Money is durable whereas the things we trade it for usually spoil. Hence, money can provide people with an incentive and a desire to extract from nature more than they can immediately consume, so long as they can trade the surplus for money before it spoils (§45-50).

in only the third paragraph: “For this labour being the unquestionable property of the labourer, no man but he can have a right to what that is once joined to, at least where there is enough and as good left in common for others” (§28).

There are plenty of questions to be raised about the key mechanism in Locke’s account: labor mixing. Nozick famously observed (1973, 175) that the proportion of labor in the mix seems to matter: if I dump a can of tomato juice that I own into the ocean, I do not come to thereby own the ocean, even though my labor is mixed with the tomato juice (because I own it) which is then mixed with the entire ocean. So perhaps the labor mixing must be *direct*. The labor particles attached to the tomato soup cannot bond with the water molecules in the ocean, as it were. This is a fundamental law of proprietary chemistry: the part of the commons you mix your labor with must be small enough to absorb the quantity of labor you mixed with it. Both Locke and Nozick fail to work out the laws of proprietary chemistry with any precision, though. I will instead focus on a more fundamental problem, one that prevents the labor mixing argument from getting off of the ground in the first place.

2. Labor mixing does not establish ownership of natural resources

The most Locke’s argument establishes is that we own the improvements we make to natural resources, not that we can come to own natural resources themselves. More precisely, we are entitled to the economic value of our labor, but not entitled to the economic value of the natural resources that we labor upon.

But it takes two analytical tools, the development of which both post-date Locke, to see this point clearly. The first is thinking of property as a bundle of rights. When you own something, your ownership consists in the right to use, to control, to exclude, to gift, to dispose of, to the economic value of, etc. Scholars did not begin to think of property as a bundle until the 20th century, where it is clearly laid out for the first time in the work of Hohfeld (1917). If property is a bundle of rights, then these rights can be disaggregated. The three constituents of property rights that we will be concerned with here are rights to the economic value of improvements, rights to the economic value of the natural resource, and usufruct rights.

Locke states that “every man has a property in his own person...The labour of his body and the work of his hands we may say are properly his” (§27). This explains why I gain a right to use and to control the things from the commons that I mix my labor with. Consider the difference

between the apple I have just picked and the apple remaining on the tree in the commons. According to Locke, “that labour put a distinction between them [the apple I picked] and common; that added something to them more than nature” (§28). The apple that I picked is a different kind of thing than the one that remains in the commons. The latter is an apple, but the former is a metaphysically complex entity, containing both my labor and an apple as aspects. These are logically and metaphysically but not physically separable parts. I can’t take the labor out of the apple that I have picked. This explains why it would be wrong for someone else to take my apple away from me: they can’t separate my labor from the apple either, so the only way they could take the apple from me would be to take my labor too. But taking my labor away from me would violate my self-ownership.

In most cases, it is not possible to confiscate a natural resource but leave the appropriator with the labor they used to improve it.¹¹ It is impossible for the labor to exist on its own since it is just an aspect of the improved natural resource. But what if someone else could take the apple without also taking my labor with it? This, it seems, would not violate my self-ownership in any way. I did not create, and hence am not entitled to, the value of the unimproved apple. My labor only created the improvement, so I am only entitled to the value of the improvement.

Even though we can’t take my labor out of a natural resource that I improve, we can compute the economic value of the natural resource *in situ*, and compute the economic value of the labor that was added to the natural resource in appropriation. There are econometric techniques that can separate the value of improvements from the value of resources in a variety of domains, from mining to property tax assessment.¹² It seems that the community can legitimately demand compensation from the appropriator in the amount of the economic value of the natural resource that they appropriated, though cannot take any value created by the appropriator.

Locke was aware of the distinction between the economic value of natural resources and the economic value of improvements. There are both textual and circumstantial grounds for this. Locke emphasizes (§40) that improvements typically constitute 90% or more of the value of

¹¹ In some cases, this is possible, but very costly. If I’ve built a house on some land, then it is possible to move the house somewhere else.

¹² The basic idea behind any such methodology is simply to subtract the costs incurred in improving a resource from the observed sale price of the improved resource to get the unimproved resource value as a residual, or to subtract the observed cost of a comparable unimproved resource from the sale price of the improved resource to get the value of the improvements as a residual.

land, which shows clearly that he grasps the conceptual distinction at issue. He also emphasizes that land is often so worthless that it could be had for free (§36). And Locke would have been keenly aware of the economics of land given his longstanding and substantial involvement with the leading land speculation syndicate of the late 17th century: the Lords' Proprietors, led by his long-time patron and employer, the Earl of Shaftesbury.¹³ Locke acted as a secretary, and perhaps, as a strategic advisor to this syndicate, which had been given a grant of all of lands in the Carolinas for aiding in the restoration of Charles II. He was responsible for developing the grand model for settlement of the Carolinas and drawing up the *Fundamental Constitutions of the Carolinas*, which enshrined slavery and established a feudal system in the new world with the Proprietors at the top. Locke played a role in organizing efforts to populate the new colony with free settlers, indentured servants and enslaved Africans, mainly by trying to persuade wealthy sugar planters in the Caribbean to move their households and enslaved laborers to the Carolinas.¹⁴ Locke would have well understood that the primary obstacle to the financial success of this venture was not securing the rights to the land itself, but rather “improving” the land by peopling it with workers, both free and enslaved, so that the Proprietors could collect a portion of their agricultural production as rent. For this reason, a headright system was instituted that compensated any planter who brought a worker, free or enslaved, to Carolina.

Why, given that Locke had both a theoretical and a practical grasp of the distinction between the value of improvements and the value of natural resources, did he fail to see that labor mixing is not sufficient to generate an entitlement to the value of a natural resource? My conjecture is that there is a second discovery that post-dates Locke that, if he were aware of it, would have enabled him to see the flaw in his thinking. That discovery is the law of rent, which plays a central role in Ricardo's (1817) *Principles of Political Economy and Taxation*, and the earliest hint of which occurs in Smith's (1776) *Wealth of Nations*.¹⁵ The law of rent is closely connected to Locke's second proviso, as we will soon see.

The term “rent” in this context means economic rent: the value paid to a natural resource for its use in production. If you rent your home or apartment, only part of your rent is “rent” in

¹³ See Armitage (2004) for an extensive discussion on the relationship between Locke's work with the Proprietors and chapter 5.

¹⁴ Locke was also an inaugural shareholder in the Royal African Company, the company that imported more enslaved people to British North America than any other.

¹⁵ Smith, *Wealth of Nations*, Book 1 chapter 11.

this sense. Part of your rent payment pays for the building, but another part pays for the land. Rents are used in the valuation of natural resources. The value of a natural resource is the rent it receives in each period, with the rents in future periods being discounted at a constant rate (the capitalization rate). The law of rent determines how much rent a natural resource can command, and as such, determines how valuable that natural resource is. It says that the rent for a resource is the difference between the productivity of that resource and the least productive resource that is currently in use, the so called “margin of production.” I will now present the canonical proof of the law of rent, using agricultural land as the example. The law also applies to urban land, the most valuable natural resource today.

Not all land is of the same quality: some parcels will produce more than others if the same amount of labor is applied to both. Even Locke recognized this, for his proviso states that there must be enough *and as good* left for others. Suppose that land comes in two different qualities: when a unit of labor is applied, the A land produces 10 units and the B land produces 5 units. Suppose that all of the A land has been claimed, but some B land is still available. Here, B land is the margin of production. Consider a worker who could work on either A land owned by someone else or on B land that is freely available. The worker could earn 5 units by working the B land, so worker would be indifferent between working the B land and paying 5 units of rent for working the A land, keeping the other 5 units as his wages. Thus, the rent for use of the A land is 5 units, the difference in productivity between the A land and the margin of production. The B land yields no rent because the difference between its productivity and the margin of production is zero.¹⁶

The law of rent is tightly connected to Locke’s proviso, but in a way that Locke would not have been able to see given the state of the economic sciences at his time. If less than all of the A parcels have been claimed, there is enough and as good left for future appropriators. In addition, A parcels receive no rent, since the difference in productivity between them and the margin of production (other A parcels), is zero. Since they command no rent, they have no economic value, by the valuation formula for natural resources we discussed above. Hence, when there are more A parcels to be appropriated (i.e., when there is enough and as good), the economic value of the A parcels themselves is *zero*. But when all of the A parcels are taken, future appropriators are not left with enough and as good; instead, there is enough and worse.

¹⁶ The law of rent can be used to derive a law of wages too. See George, *Progress and Poverty*, book 3, chapter 6.

And when all of the A parcels are taken, the A parcels will start to yield a rent of 5. As such, they will have a value several times as large—how large, exactly, depends on the rate at which the rents are capitalized.

We have just drawn out the connection between the law of rent and the proviso: when there is enough and as good, no one pays rent, and the economic value of all natural resources is zero. When there is not enough and as good, people have to pay rent, and the economic value of land more productive than land at the margin of production has a positive value.

The Lockean proviso, very clearly, is not satisfied today. All of the land in habitable areas, not just all of the good land, is taken. But Locke believed that the proviso was satisfied even in his own time. We can now easily see that this was just wrong. Private ownership of English land was not problematic, Locke wrote, because the unlanded can go elsewhere: “let him plant in some inland, vacant places of America” (§36). Four observations must be made here. First and foremost, such places were not vacant, but home to indigenous people who would soon be dispossessed. Indeed, Locke litters the chapter with justifications for dispossession of native peoples (§40-41). What’s more, he helped effect this dispossession in his work with the Lords Proprietors. Locke’s injunction for the unlanded to go to America must be seen as self-serving, at best, given that he was, at the time at which chapter 5 was written, actively trying to recruit a population for his employers’ new colony. Third, land in America was not free—most of the land in the Carolinas, for instance, was either sold to settlers by the Lords Proprietors or its users owed them rent. Finally, the availability of free land in America did not satisfy the proviso because it was not as good as the land in England. The unlanded of England had to go to great expense, often indenturing themselves for years, even to reach this land. Once there, its distance from the ultimate consumer market in Europe made the land less valuable as well.¹⁷

Locke’s justification for the original acquisition of natural resources is that “in the beginning, all the world was America” (§49). Since America was still “America,” in Locke’s mind at least, the proviso remained satisfied, and hence, private ownership of land remained acceptable. Locke failed to see the obvious fact that his proviso was not satisfied even in his own time. Yet, his belief that it was satisfied served as a dual justification for private property in England and for the English colonial model and its dispossession of indigenous people. Native Americans had no right to the land, on Locke’s view, because they did not improve it through

¹⁷ See George (1879; book 4, chapter 2) for a related discussion.

agriculture.¹⁸ And since they had no claim to it, the availability of American land served as a justification for the English private property regime—and its expansion through the enclosure movement back in England.¹⁹

One struggles to make sense of Locke’s failure to see that the proviso was not satisfied even in his day. Some have chalked this up to his racism and interest in advancing the English colonial project.²⁰ This explanation may well be correct, but analytical grounds can perhaps be given as well. Because he did not understand the law of rent, Locke mistakenly thought that the following two states of affairs are compossible: land has a positive value and there is enough and as good land left. The law of rent shows that these two are not compossible. Another way to put this point is that Locke mistakenly thought that the value of land is an intrinsic feature of the land: it is determined by how much food it can grow.²¹ But the law of rent shows that this is a mistake: land’s economic value—as opposed to its productivity—is entirely extrinsic, depending as it does on how much other land is in use and where the margin of production lies. George (1879; book 3, chapter 2), explains the point quite well: “I may have very rich land, but it will yield no rent and have no value so long as there is other land as good to be had without cost. But when this other land is appropriated, and the best land to be had for nothing is inferior, either in fertility, situation, or other quality, my land will begin to have a value and yield rent.” American land was not inferior in fertility, but was inferior in situation. That is why English land commanded rent and was valuable, and why there was not enough and as good even in Locke’s day.

In summary, the labor mixing argument’s upshot depends on whether the proviso is satisfied. If the proviso is satisfied, the argument is successful in securing full property rights because if the proviso is satisfied, the economic value of all natural resources is zero. Hence, labor mixing secures a usufruct right to the labored-upon resource, which allows the improver to protect his improvement, and of course the laborer is entitled to the value of his labor. The argument does not succeed, however, in showing that labor mixing secures a right to the economic value of natural resources. If the proviso is unsatisfied, then natural resources yield rent and thus have a positive economic value. The proviso was not satisfied in Locke’s day;

¹⁸ Murray (2022), Arneil (1996), Bishop (1997) and Corcoran (2007) discuss Locke and Native Americans.

¹⁹ Ephraim (2021) discusses Locke and enclosure.

²⁰ Bernasconi and Mann (2005).

²¹ This mistake is most clearly on display at §43.

indeed, there has probably never been a time in the history of human civilization when the proviso was satisfied, since proximity to urban agglomerations increases land value. The proviso did not become unsatisfied when Frederick Jackson Turner announced the closure of the frontier in 1893, but rather, it became unsatisfied when humans settled in Jericho and the other early cities. Locke's labor mixing argument is thus successful but useless. The argument succeeded in showing that we are entitled to the value that we create through labor. But the question that remains to be answered by theorists of distributive justice is this: who is entitled to the natural resource rents?

3. George's critique of appropriation

Henry George has an answer to this question, or at least the beginnings of one. George's magnum opus, *Progress and Poverty*, was published in 1879, 190 years after Locke's two treatises, immediately after reconstruction and at the dawn of the Gilded Age. George's main idea was that a tax on natural resource rents was both efficient and just, and could replace all other taxes.²² George's writings will serve as the basis of my account, developed in the next section, of who is entitled to natural resource rents. In this section I will present George's ideas and focus on a couple of his most interesting arguments.

Though he has been widely forgotten by contemporary social theorists, George's ideas remain popular among economists because taxes on the unimproved value of natural resources are efficient. In technical terminology, economists know that taxation transfers some economic value to the government in the form of taxes collected, but also destroys economic value in the form of deadweight loss. The exception to this general rule is if taxes are placed upon perfectly inelastic factors of production, and natural resources are the only such factor. Perfect inelasticity means that the amount of the activity does not change in response to changes in the tax level. People work less if they are taxed more, save less if interest on their savings is taxed and consume less if their consumption is taxed. These responses all create deadweight loss. But taxes on natural resources do not change the amount of natural resources that there are, because nothing can change the amount of natural resources that there are. Thus, the efficiency-based

²² If the tax on a piece of land is equivalent to the rent the land commands in each period, then this means that the government completely controls the revenue stream from the land and the public enjoys an entitlement to the land's economic value.

argument for land-value taxation is that all other taxes lead to the destruction of economic value, but only the land-value tax merely transfers, but does not destroy, value. Land value taxes, unlike other taxes, allow us to redistribute the economic pie without shrinking it. This argument is widely accepted among economists, and since it is not controversial, we will focus instead on George's justice-based arguments for land value taxation.

Locke and George seem to agree on the two premises that have structured our discussion of original acquisition so far (George 1879, book 7, chapter 1):

1. All property rights are fundamentally derived from the right of self-ownership.
2. All people (initially at least) have equal rights to natural resources.

Of the latter claim, George writes: "The equal right of all men to the use of land is as clear as their equal right to breathe the air – it is a right proclaimed by the fact of their existence. For we cannot suppose that some men have a right to be in this world and others no right." And of the former he writes "What constitutes the rightful basis of property?...the right of a man to himself, to the use of his own powers, to the enjoyment of the fruits of his own exertions...As a man belongs to himself, so his labor when put in concrete form belongs to him." Locke and George agree that improvers are entitled to the value of their improvements. Locke thinks that a right to the value of the resource itself follows from this, but George shows that it does not.

George has two arguments for this. The first is relatively simple. If all property rights are fundamentally derived from self-ownership, then private appropriation of natural resources is impermissible because (1) if a natural resource itself has value, the appropriator did not create that value; rather (2) the value of natural resources is created by the community, not the appropriator, so the community is entitled to the value of natural resources. Claim (1) is true by definition.

Claim (2) is easiest to see in the case of urban land. An apartment in Manhattan costs about \$5,000 and more than half of that figure—we can conservatively say 60%--is payment for the land rather than the building. Why does the owner of the apartment building get to collect \$3,000 from the tenant just for the use of a very small parcel of land? Why is the tenant willing to pay for this? George clearly identifies what gives urban land its value (Book 4, chapter 2):

"Here is the heart, the brain, of the vast social organism...Here, if you have anything to sell, is the market; here, if you have anything to buy, is the largest and the choicest stock. Here intellectual activity is gathered into a focus, and here springs that stimulus which is

born of the collision of mind with mind. Here are the great libraries, the storehouses and granaries of knowledge, the learned professors, the famous specialists. Here are museums and art galleries, collections of philosophical apparatus, and all things rare, and valuable, and best of their kind. Here come great actors, and orators, and singers, from all over the world. Here, in short, is a center of human life, in all its varied manifestations.”

Anyone should be able to clearly see that nothing that the landlord himself does can affect how much people are willing to pay to use his land (though the landlord can affect how much people are willing to pay to use his building). Rather, the value of urban land is determined by the rest of the community. In particular, land’s value is determined by its proximity to other things of value: job opportunities, leisure activities, restaurants, the arts, social and romantic opportunities, and many more. In short, the land value of our Manhattan apartment is due entirely to the fact that it is in the heart of a metropolitan area of 20 million people that is the center of many important industries and home to many important institutions. The land is valuable because of the positive externalities produced by all of these other people and their activities, not anything the landowner *does*. And if the right to property springs only from the right of the producer to what they produce, it is clear that the landowner has no right to collect payments for the use of land, the value of which he is in no way responsible for. It is instead the community that has the right to collect these payments, because the community produced the land’s value. Economic rents for natural resources are caused by the fact that demand for that resource exceeds its supply, which is fixed by nature. Demand for urban land is so high because urban land affords access to the positive externalities due to the productive activities of everyone in the city.

George’s second, and more profound, argument is that claim (2) actually follows from claim (1). Here is George again (book 7, chapter 1):

“This right of ownership that springs from labor excludes the possibility of any other right of ownership. If a man be rightfully entitled to the produce of his labor, then no one can be rightfully entitled to the ownership of anything which is not the produce of his labor...If production give to the producer the right to exclusive possession and enjoyment, there can rightfully be no exclusive possession and enjoyment of anything not the production of labor, and the recognition of private property in land is a wrong. For the right to the produce of labor cannot be enjoyed without the right to the free use of the opportunities offered by nature, and to admit the right of property in these is to deny the

right of property in the produce of labor. When non-producers can claim as rent a portion of the wealth created by producers, the right of the producers to the fruits of their labor is to that extent denied.”

This is an argument for the conditional claim: if natural resources were privately owned, then people would not fully enjoy the fruits of their labor, and hence, would not have full self-ownership. The argument is based on a metaphysical claim about the nature of production—production requires both natural resources and labor. Production just is the alteration of natural resources by labor.²³ It follows from this that labor cannot occur unless there are natural resources to labor upon. And if these resources are owned by others rather than freely available, labor cannot occur unless permission has been granted by the resource owner. For this reason, the natural resource owner is able to appropriate part of what is produced by the laborer by charging them for access to the natural resource. The laborer will have to pay for this access from the value that their labor adds to the natural resource. Therefore, if we think that laborers are entitled to everything that they create, then we cannot also think that natural resources can be privately owned. The value of labor and the very right of self-ownership, are completely useless without access to natural resources.

This is a point that Locke should have seen, since it is just the inverse of the *argument from eating*. We have to interact with the external world to eat and to work. But if permission to eat and work can be granted or denied by another party, we are at the mercy of that other party for our survival. This dependence allows the owners of the world to appropriate part of what we produce—by charging rent for use of natural materials that we must use in production and consumption. The self cannot exist in a vacuum; it is physically dependent on the world. Therefore, free access to what George calls “natural opportunities” is a necessary condition for self-ownership. If the natural opportunities are enclosed or appropriated in Lockean fashion, then this is inconsistent with peoples’ self-ownership.

The next chapter (Book 7, Chapter 2) takes this argument one step further. George proposes a thought experiment, which I quote in full:

“Place one hundred men on an island from which there is no escape, and whether you make one of these men the absolute owner of the other ninety-nine, or the absolute owner

²³ See *Progress and Poverty*, book 1, esp. chapter 3. See also George’s *The Science of Political Economy*, book 3, chapter 1.

of the soil of the island, will make no difference either to him or to them. In the one case, as the other, the one will be the absolute master of the ninety-nine—his power extending even to life and death, for simply to refuse them permission to live upon the island would be to force them into the sea.”

In this thought experiment, George observes that ownership of an essential element of survival, land, gives the land-holder equal power over the non-land-holder to the power the slave-holder has over the enslaved. George uses this thought experiment to argue that if slavery is unjust, then private appropriation of natural resources is unjust. Both involve, according to George, the illegitimate ability of one person to appropriate the fruits of another’s labor. Both violate the laws of just distribution as a result. This point is not just an abstract philosopher’s trick. Rather, George is writing two years after the end of reconstruction and comments extensively on the failure of emancipation to truly free formerly enslaved people given that there was no land reform in the South concurrent with emancipation. George concludes: “It is the ownership of the soil that everywhere gives the ownership of the men that live upon it.” This ownership is not the full ownership of chattel slavery; it is only partial and it is determined by how much of their income individuals have to pay in rent.

This argument bears a striking similarity to Nozick’s (1973, 169-174) argument that taxation is morally on a par with forced labor. If some entity can take five hours’ worth of your wages each week, then that entity effectively has a claim to five hours of your time. If you work 40 hours a week, then the entity owns 12.5% of you, according to Nozick. Nothing about Nozick’s argument turns on the entity in question being the state. If a landlord can take five hours’ worth of your wages each week, then the landlord effectively has a claim to five hours of your time, and thus, owns 12.5% of you. You can leave the country to avoid paying taxes, but if all of the other countries that you might go to also levy taxes, then your staying in your current country cannot be interpreted as consent to the taxation. Likewise, if every rental unit available in someone’s city requires paying five hours of your wages for the portion of the rent that is due to land, then your staying in your current apartment cannot be interpreted as consent to the taxation. The exact same reply to the hypothetical consent objection is available in both the tax case and the rent case. In both cases, an entity can appropriate some of your earnings and hence partially owns you. Citizens and tenants can pick their owners, but this fact is of little normative significance given that all of the other options are ones in which they pay taxes and rent,

respectively. Hence, we should think of taxes and rent in analogous terms. The owner of a natural resource can extract rent from the users of that resource just as the sovereign can extract taxes from the citizens. Ownership of natural resources, when it is certified and protected by the state, is a kind of delegated sovereignty. We should thus think of the power of landlords in political terms. Today landlords have just two powers remaining, compared to the more extensive powers of their feudal predecessors:²⁴ the power to extract resources from their tenants (taxation), and a monopoly over the use of legitimate force in their “territories”—the power to evict. Both of the landlord’s powers are constrained by law in the same way that the ability of states to arbitrarily exercise their powers has been constrained by law.

The main upshot of this discussion is that we can now see how the Locke-Nozick theory of property gets things exactly backwards. The original promise of the theory was that private property secures the improvements that were made when the improver mixes his labor with a natural resource. Lockean property rights were supposed to secure the right of the laborer to what they produce, thereby incentivizing laborers to produce more. And they serve this function perfectly *when the proviso is satisfied*. But when the proviso is unsatisfied—when natural resources themselves gain value independent of their improvements because of their scarcity relative to how much people want to use them—Lockean property rights are *just the opposite* of what is required to secure to laborers what they produce. Indeed, their function is to allow natural resource owners to appropriate value that is produced by others, in addition to securing the value of the improvements that the owner created. We need a property rights system that can both secure to the improver the value of their improvements, while returning the socially created value of natural resources themselves to the community. I will now propose such a system.

4. Constructing a Georgist theory of appropriation

In this section, I will use the critique of Locke I developed in section 2 and the insights from George discussed in section 3 to construct my theory of appropriation. I call this theory a “Georgist” one because it acknowledges that private appropriation of natural resource rents is fundamentally illegitimate. But I will depart from George in a few respects. I will build my

²⁴ Landlords once had much more power over their tenants, including the administration of justice and jurisdiction under common law. (In Locke’s Carolina, for instance, landowners could try criminals for offenses in their own courts). Linklater (2002), (2013) describes the long transition from feudal tenures to modern ones.

account on the sole premise that property rights derive from our right of self-ownership. From this premise, my account will provide an explanation of who gets the following three rights:

1. Rights to the economic value of a natural resource.
2. Rights to the economic value of a improvements.
3. Usufruct rights for the improved natural resource, which include the right to exclude, transfer, use, modify, etc.

When you mix your labor with some natural resource and improve it, you are entitled to the value of your improvement. This entitlement derives from your self-ownership. To protect this right, you are also entitled to the usufruct rights over the natural resource and its improvements. You are never entitled to the economic value of the natural resource itself, since this is not a result of your effort. When the economic value of the natural resource is zero (i.e., when the proviso is satisfied), no one can challenge your usufruct rights, since there is enough and as good of the natural resource for anyone else who wants to use it.

But when the economic value of the natural resource is positive (i.e., when the proviso is not satisfied), things get more complicated. Here, your interest in securing your improvements is in conflict with the community's interest in securing the value that it created, the value of the natural resource itself. Since it is scarce, other people have competing interests in using the resource that you improved—these interests are the reason why scarce natural resources are valuable. To continue using the resource, you must compensate other community members for depriving them of a resource to which they are equally entitled. You must pay the economic rent of the resource to the community in each period that you continue to use it.

What should happen if you do not pay? By not paying, you have forfeited your right to use the resource. But you remain entitled to the value of your improvement. Thus, in order for the community to justly seize the natural resource that you have not paid them to use, they must compensate you for seizing your improvement, since you are entitled to the value of the improvement. Alternatively, the community could place a lien on your improvement to allow you to continue to use the resource while you come up with the rent. But if you continue to fail to pay rent to the community, and the lien and its interest grow in value to the point that it equals the value of your improvement, then the community has the right to evict you and seize your improvement as well. If the value of your improvement is I and the rent for the natural resource

is R , this scheme would allow you to continue to use the resource for I/R more years, though you are owed no compensation for your improvement when you are eventually evicted.²⁵

The community, not the user, is entitled to collect all natural resource rents. Now we will see how the rents should be distributed. This decomposes into two questions. First, what is the scope of “the community” that is entitled to the natural resource rents? Second, how should the rents be divided among the members of the community? These are really two aspects of the same question: how much of a given natural resource’s rent should each person get?

Perhaps the most obvious and straightforward answer to this question is a view I will call Cosmopolitan Egalitarian Georgism (CEG).²⁶ According to CEG, all of the natural resource rents in the entire world should be equally distributed among all of the people in the world. If natural resource rents are 8% of global GDP—I believe this estimate is a lower bound—which is \$105 trillion this leads to a global GDP per capita of around \$13,000, and a global natural resource rent per person of \$1,040.²⁷

CEG has a certain appeal. If we take seriously and literally the claim that each person is an equal owner of the Earth, then CEG is the only view that would give to each person their due. But the claim that we jointly own the earth, deriving as it does from Locke’s theological premises, should be abandoned with the other incorrect parts of his view. We shouldn’t think that everyone originally owns the earth, following Locke, but rather, that no one does, following Rousseau.²⁸

People contribute unequally to causing a natural resource to have the rent that it does. This fact is the basis of an argument against CEG. I will illustrate this using the example of urban land. Consider the economic rents generated by Manhattan Island, which has a value of

²⁵ Our legal system already has a process similar to this in the tax foreclosure process. Everyone has to pay property taxes, and if you do not pay your property taxes, the government places a lien on your property and, in most jurisdictions, sells the lien to third-party investors. Then, after a period of time specified by law, if you don’t pay off the lien, then you can be evicted from your property by the investor who owns it. The government can evict you for not paying property taxes—a significant limitation that our legal system has placed on the rights of property owners. My proposal would be very easy to implement because all of the infrastructure that local governments use to collect delinquent property taxes is already in place, with extensive bodies of case law, etc. This infrastructure could be very easily adapted if property taxes shift to land value taxes.

²⁶ Steiner (2009) defends this view.

²⁷ This is difficult to estimate because economists typically define natural resource rents in a way that excludes rents on urban and suburban land (including owners’ imputed rent). Eden and Kuruc (manuscript) report world bank data going back 50 years that shows natural resource rents (excluding (sub)urban land) fluctuate between 3 and 5 percent of GDP. Urban land rents are probably at least another 4% of GDP, given that urban land represents more than 25% of the capital stock of advanced countries according to Piketty (2014).

²⁸ Rousseau, *Discourse on the Origin of Inequality, Part II*.

perhaps three or four trillion dollars. This means that the annual rent is, let's say, \$300 billion. On CEG, then, each of the Earth's 8 billion people is entitled to their share of Manhattan's annual rent--\$37.50. Why is Manhattan this valuable? The value is not intrinsic to the island. Manhattan has an economic rent because demand for using space on Manhattan far exceeds the supply of available space—more people want to be on Manhattan than can be accommodated. Everyone wants to use space in Manhattan because it affords access to untold economic opportunities and amenities. Manhattan's economic rent is due mostly to the productive activities of everyone who lives in the metropolitan area.

But if this is the case, then why should a subsistence farmer who lives on the other side of the planet—someone whose community, let's suppose, is completely independent from the global economy—receive a check every year for his portion of Manhattan's economic rent? The initial problem that George highlighted with private ownership of natural resources, recall, was that if those resources command an economic rent, then their owners can appropriate some of the fruits of the labor of others, benefitting from what they do not produce. But CEG suffers from the very same problem. The value of Manhattan is created, overwhelmingly, by the 20 million people who live on Manhattan and in the surrounding metropolitan area. But CEG allows people who did not create Manhattan's economic rents to appropriate value created by the labor of people living in the NYC metro area. This is not just. The premise that we all have equal ownership of the earth, then, has unexpected and inadequate implications for distributive justice.²⁹

The problems with CEG will be inherited by any other egalitarian form of Georgism restricted to a smaller, non-cosmopolitan community. Indeed, the people in the metro area itself do not all contribute equally to producing the economic rents of Manhattan Island. Children and the retired don't contribute to the productive activities that give land its economic value, and some working adults are more productive than others: someone who lives on the outskirts of the

²⁹ The point can be made in an intergenerational context as well. If cosmopolitan egalitarian Georgists think we all have equal ownership of the Earth and hence are equally entitled to its natural resource rents, then they should think that past people, present people and future people are equally entitled to all of the resource rents the Earth ever produces. So people in previous generations, when the economy was smaller and the rents were lower, are entitled to a subsidy from people in subsequent generations when the economy and rents are larger. But the same point holds. A subsistence farmer in the Middle Ages did not create, and hence is not entitled to, the economic rents Manhattan Island commands today. We can't travel back in time to give the farmer in the Middle Ages his share, but one thing humans can do to transfer wealth from future generations to the present one is by using up finite resources and degrading the environment. The present generation is not entitled to do this in order to seize their share of the large natural resource rents that will be generated by the future economy.

city doing unskilled labor contributes less to the city's natural resource rents than does a highly skilled knowledge worker in the city center. So, even metropolitan egalitarian Georgism will not work, but it is *closer* to the truth than is CEG.

This leads us to the correct view, which I shall call “proportional Georgism,” or simply “Georgism.”³⁰ On this view, the economic rent for a natural resource should be enjoyed by the people who cause the resource to be valuable, in proportion to the share of the rent that they are responsible for. Natural resource value is caused by the fact that more people demand to use the resource than the fixed amount supplied by nature. Thus, the people who create the natural resource value are the people who demand it. Each person should get a share of a natural resource's rent that is proportional to their share of the aggregate demand for the resource. Someone's demand to use a resource is determined by the productive use that they can put the resource to.³¹ People who can use a resource most productively will have the greatest demand for it. If the market for resources is perfect, then resources will be used by the person who can make the most productive use of the resource. But the rents for the resource will be distributed to that person and everyone else who demands the resource, in proportion to how much they demand the resource.³² This will distribute natural resource rents to people in proportion to how productive they are. No one can own natural resources and everyone is entitled to use them. But when more people want to use a resource than what is available—giving rise to economic rent—the person who actually gets to use the resource is the person who wants it most, but this person has to compensate all of the other potential users by distributing the economic rent to them in proportion to how much each of them wants to use the resource.

In practice, it will be difficult to precisely identify the contribution of each person to a natural resource's rent, as proportional Georgism requires. But luckily, the broad policy implications of egalitarian and proportional Georgism could not be more distinct. Egalitarian

³⁰ George did not draw the distinction between proportional and egalitarian views that I develop here. There is more textual support for regarding the George of *Progress and Poverty*, as holding a proportional view, though I do not believe he had a clear view of the distinction.

³¹ In practice, someone's willingness to pay for a resource is not solely determined by the productive use they can put that resource to, given the background condition of unjustly unequal distribution of wealth. Willingness to pay does not reveal value, but rather it reveals value and ability to pay. But this is not an objection to the ideal theoretic project pursued here.

³² Example: Alice, Bob and Chad could all work a field, producing 10, 8 and 2 units, respectively. The field, let's say, yields 4 units of rent. Alice will actually work the field and receive 6 units of wages, and pay 4 units of rent. Alice will receive $10/20 = 50\%$ of the rent, or 2 units. Bob will receive $8/20 = 40\%$ of the rent, and Chad will receive $2/20 = 10\%$ of the rent.

Georgism recommends using natural resource rents to fund a universal basic income that is received by each member of the relevant community, be it cosmopolitan, national, or metropolitan. Proportional Georgism recommends using a tax on natural resource rents to replace the revenue that comes from taxes that fall on the other factors of production: labor and capital. These taxes are both inefficient and unjust. Taxing elastic factors of production yields deadweight loss—the destruction of economic value. And taxing what people produce with their labor and with their capital,³³ is an affront to their self-ownership for the reasons that Nozick recognized. Eliminating taxes on production would allow people to keep more of what they produce and as such would benefit people in proportion to how much they produce, giving them approximately what they are entitled to according to proportional Georgism. Using land value taxes to replace the revenue from taxes on production is a way to return land value to the entities that created it. Since governments in developed countries collect more in revenue from taxes on productive factors than they could raise by a land value tax—something that was not true in George’s time when the main tax was the tariff—we need not devise any other policy instruments to implement proportional Georgism.³⁴

Here is another way to see the virtues of proportional Georgism. People’s productive activities often generate positive externalities. The justification for subsidizing higher education and healthcare, for instance, is that someone’s being healthy and educated does not just benefit them, it benefits everyone else in the community too. Goods with positive externalities will be undersupplied by the free market, and one way to correct this is for the government to subsidize them. But another way to correct this is to invent technologies that allow people to internalize the positive externalities that they create, which both (1) incentivizes them to produce more and (2) allows people to enjoy the fruits of their labor that they were entitled to all along. Proportional Georgism is a social technology that internalizes positive externalities at scale. As we discussed above, land gets its economic value entirely from positive externalities, from its proximity to

³³ Capital, on George’s view (book 1, chapter 2), is just a kind of labor—it is labor stored up in material form rather than spent immediately on consumption. People are entitled to their capital for the same reason they are entitled to their labor, because capital is labor.

³⁴ One similar policy is the elimination of taxes that fall on consumption—which include sales taxes and taxes on personal property like vehicles. This may have the same efficiency properties of eliminating taxes on production, since some scholars have argued that consumption has a positional component, meaning that we derive utility amount we consume relative to other people, not the absolute amount. The *locus classicus* of this view is Veblen’s *Theory of the Leisure Class* published in 1899, two years after George died and at the height of the Gilded Age (though see Frank 2005 for a contemporary exposition of the idea). Scholars in this tradition advocate for steep and progressive taxes on consumption for some of the same reasons that George advocated for a land value tax.

other people and their productive activities. By distributing land's value to the people who create it, we internalize a positive externality, which has attractive properties from the perspectives of both efficiency and justice.

One final virtue of proportional over egalitarian Georgism is that it treats each natural resource differently, and does not lump them all together to be redistributed equally. Each scarce natural resource should collectively benefit the people whose demand for the resource gives it economic value. Urban land value will largely be enjoyed by the urban community, but other natural resources that command rent, like satellite orbital positions, energy, minerals, or water, will be distributed much differently. Some resources, like the atmosphere, are global public goods and are enjoyed by everyone.³⁵

In sum, proportional Georgism allows people to get what they produce. By eliminating taxes on labor that appropriate hours of work, workers receive everything that they produce. By preventing people from privately appropriating natural resource rents, no individual can receive something that they do not produce. By eliminating taxes on capital gains, savers receive the full reward for their frugality and patience. The ideal of self-ownership is thus fully realized only in a proportional Georgist system. To use George's description of the effects of such a system:

“Wealth would not only be enormously increased; it would be equally distributed. I do not mean that each individual would get the same amount of wealth. That would not be equal distribution, so long as different individuals have different powers and different desires. But I mean that wealth would be distributed in accordance with the degree in which the industry, skill, knowledge, or prudence of each contributed to the common stock. The great cause which concentrates wealth in the hands of those who do not produce, and takes it from the hands of those who do, would be gone. The inequalities that continued to exist would be those of nature, not the artificial inequalities produced by the denial of natural law. The non-producer would no longer roll in luxury while the producer got but the barest necessities of animal existence” (Book 9, chapter 3).

If the proportional Georgist ideal could be completely realized, each person would get exactly what they are entitled to, which is what they produce—the value they create by laboring.

³⁵ In a companion paper, Forrester (ms), I consider how rights to emit greenhouse gasses should be distributed.

5. Objection: Why are we entitled to what we produce?

I have argued that proportional Georgism is the system of distributive justice that fully realizes the ideal of self-ownership. Some philosophers will think that this is not adequate. What George calls the “inequalities...of nature”—commonly called “natural endowments” in the contemporary literature—would be enjoyed by those who possess them. But what justifies this inequality? Any physical or mental trait that has a genetic component and is hence outside a person’s control is considered a part of their natural endowment. Luck egalitarians think that which natural endowment you get is completely morally arbitrary, and that the economic value of these endowments should be redistributed, giving compensation to those who were unlucky and received a bad endowment and paid for by taxes on those lucky ones who received good endowments.³⁶ The luck egalitarian model is that an individual’s ability to produce goods of economic value—among other things, like their attractiveness as a partner or how good they are at athletic pursuits—results from a combination of three things: a natural endowment that is genetic in nature, a gifted component that represents the advantages or disadvantages that they got in childhood (or as an adult), and a volitional component that represents the individual’s own effort. I do not have space in this paper to consider the theory of the distributive (in)justice of gifts.³⁷ Therefore, we will consider only the simplified two-factor luck egalitarian model on which what an individual can produce is the result of a natural endowment and a volitional component.

I suspect that many luck egalitarians do not appreciate just how much of the objectionable inequality in our world is due to unjust human institutions—particularly the private appropriation of all of the earth’s resources—and tend to overestimate the importance of natural advantage as a driver of human inequality. Nevertheless, some natural inequality undoubtedly exists, and I will here focus on providing arguments that luck egalitarians draw inappropriate normative conclusions from this fact.

Luck egalitarians have a number of arguments for their view. The main consideration normally adduced is that no one deserves their natural endowment because nothing one does can influence which natural endowment one has, by definition. People do not produce their own

³⁶ Cohen (1995) is often regarded as inaugurating this tradition.

³⁷ I am inclined to think that almost all gifts are legitimate from the perspective of distributive justice, so long as (1) the gift was justly acquired by the benefactor and (2) the gift does not make anyone else worse-off.

natural endowments, but only produce their volitions that are “mixed” with their natural endowment. Therefore, it would seem that people are not entitled to their natural endowments because they did nothing to deserve them.

When put this way, it can be clearly seen that some of the same considerations that motivate my Georgist arguments against Locke and Nozick can also be used by the luck egalitarian against my Georgist view. The owner of land did nothing to produce the land’s value; that is due to the community as a whole. Georgists conclude from this that natural resource value should be socialized. Likewise, the owner of a natural endowment did nothing to produce that natural endowment’s value, and as such, we should think that the value of the natural endowments should be socialized. People are entitled to the improvements that they make to natural resources but not to natural resource value itself; likewise, people are entitled to the improvements that their will makes to their natural endowment but not to the value of the natural endowment itself.

The luck egalitarian can extend this argument by also showing that natural endowments are not only undeserved by the individuals who have them, but their economic value is created by the community also.³⁸ In particular, it is clear that many natural endowments receive their economic value from the division of labor which enables specialization and the development of the natural endowments. Consider Wilt Chamberlain’s ability to play basketball. This ability decomposes into a natural endowment and a volitional component. Both are necessary to play basketball at his level, but they are only jointly sufficient: someone with his physical features who never practiced would be no good, as would someone with an inferior natural endowment who tried just as hard as Chamberlain. But this analysis misses a third factor: the rest of the community. Chamberlain could not have developed his talents in the first place but for the fact that he was embedded in a society with division of labor which incentivizes people to develop their specific talents because there is a market for specialized skills. Like natural resource rents, the economic value of many natural endowments is created by the community through the system of the division of labor, and not by the individual who has mixed their will with those endowments.³⁹

³⁸ See Mulligan (2018) for a related discussion where wages are construed as partially owing to economic rents.

³⁹ The reason I qualify this assertion with “many” is because some natural endowments, like having a kidney, are useful whether or not one lives in a society with division of labor. But the economic value of other natural

Accordingly, if we could analytically separate Chamberlain's wages into the part due to the natural endowment and the part due to his volition—as we can analytically separate the value of an improved natural resource into the value of the improvements and the value of the natural resource—the luck egalitarian argument would imply that everyone has an entitlement to an equal share of the economic value of all of the natural endowments. The only portion of Chamberlain's wages that he is entitled to is the portion due to his volition.

I have just highlighted the similarities between the motivations for Georgism and luck egalitarianism. This analogy, though, is illusory and there are at least five reasons to be skeptical of luck egalitarianism. The first two show that luck egalitarianism is not a stable position. The second two undermine the putative analogy between natural endowments and natural resources. The final shows that luck egalitarianism is inconsistent with the premise of self-ownership.

First and most straightforward: luck egalitarianism simply inherits the flaws of egalitarian Georgism. The problem that luck egalitarianism inherits is that not everyone—or more precisely, not everyone's wills—contributes equally to giving natural endowments their economic value. The people who choose not to participate in the economic system and who contribute very little to the wealth that is created by the division of labor do not contribute as much to giving peoples' natural endowments their value as do the efforts of someone who fully participates in the economic system. Hence, they are not entitled to an equal share of the natural endowments for the same reason that they are not entitled to an equal share of the natural resource rents. Thus, we should not be luck egalitarians; at best, we should be luck proportionalists. Natural endowments should be redistributed, but everyone should not get an equal share. Rather, everyone should get a share that is proportionate to how much their wills contribute to the creation of the value of the natural endowments. Even though luck proportionalism is a better view than luck egalitarianism, the two views suffer equally from the following problems.

Second, I am very skeptical that there is a line to be drawn between the will and the natural endowment. On an epistemic level, we could never locate such a line, and we could never carry out the envisaged procedure of decomposing earnings into one source or the other. Compare this with our ability to analytically separate natural resource value and improvement value, which is improving every day thanks to advances in econometrics. The key source of data

endowments like being in the top .01% of the height distribution is entirely contingent upon the organization of society and the preferences of its other members.

that drives this progress is that we can observe the sale price of unimproved natural resources, and we can observe the monetary cost of improving a natural resource. But we cannot observe the wages of people whose natural endowments are completely unimproved by the exercise of willpower, or how much it “costs” to exercise willpower. On a scientific level, it is unlikely that willpower differs from other psychological traits in entirely lacking a genetic basis. Willpower should thus be considered as a part of one’s natural endowment. On a metaphysical level, if determinism is true then one is no more responsible in some deep sense for one’s will than one is for one’s natural endowment, suggesting that exercises of the will do not generate entitlements because they, too, are undeserved. Insofar as we are in the business of naturalizing and causally explaining such traits as height, extroversion, intelligence, etc. and regarding them as part of a natural endowment, at the end of the day, even volition itself must be naturalized too. You no more deserve your ability to work hard than you deserve to be the height that you are. To the luck egalitarians, this would mean that even the products of volition should be socialized and distributed equally. Hence, their view is in danger of collapsing into egalitarianism proper. If they think that you are responsible for the activities of your will in some deep sense, then luck egalitarians should be luck proportionalists. If they do not, then they should just be egalitarians.

Third, up to this point, efficiency-based arguments and justice-based arguments have been in lock-step. This is one of the key considerations favoring proportional Georgism—it is a unified theory that can be argued for from deontological or consequentialist premises. The view faces no equity-efficiency trade-off. The efficiency property of proportional Georgism rests on society’s ability to tax natural resources without effecting the overall level of production. This puts resources to their best use, and if someone does not pay the land value tax, their land can be confiscated and given to another who will put it to its best use. Natural endowments, by contrast, are either non-transferable, or very costly to transfer. We can’t chop off Chamberlain’s legs and give them to someone who is willing to work even harder. We can’t extract someone’s extroversion and inject it into the introvert.⁴⁰ Hence, there is no efficiency argument for luck egalitarianism. There are no possible institutional arrangements that can move the natural endowments to their highest socially valued use, like natural resources can be moved to their highest value use. Natural endowments are stuck in the bodies in which they originated, and our

⁴⁰ We can, at great expense, extract someone’s bodily organs like kidneys or eyeballs to give them to those without, something that luck egalitarians favor—e.g., Cohen (1995; 70, 244).

best hope is to discover institutional arrangements that can incentivize their owners to put them to their highest value use. A tax on natural endowments, unlike a tax on natural resources, will prevent natural endowments from being put to their best use, because their owners will not have an incentive to improve them. The natural resource owner's incentive to improve exists only against the background of society's ability to give his resource to someone else who can make better use of it, but society has no such ability to confiscate and redistribute natural endowments without creating adverse incentives to underutilize those endowments. Luck egalitarians must trade off equity (as they conceive it) and efficiency.

Fourth, natural endowments are not scarce in the way that natural resources are, so they should not be thought of as commanding natural resource rents at all. All natural endowments boil down to information that is genetically encoded. But information is a non-rivalrous resource: my use of information does not lessen the ability of anyone else to use that information. In particular, my "use" of my genetic code does not prohibit anyone else's use of my genetic code, in the way that my use of a certain piece of land prevents someone else's use of that land. There is enough and as good in the gene pool for everyone to freely use. If someone wanted to give himself gene therapy to get Wilt Chamberlain's genes, then he is free to do so, because genetic information, like all information, is not scarce. As such, the proviso is satisfied and natural endowments should not be thought of as commanding a scarcity rent that can be legitimately redistributed. Natural endowments should be thought of as more akin to intellectual property than to physical property. Intellectual property, by its very nature, can never be intrinsically scarce because of its non-rivalrous nature.

Luck egalitarians err in two ways. First, they are *egalitarians*, so they think that everyone is equally entitled to the value of natural endowments, rather than that everyone is equally entitled to the proportion of the value of natural endowments that they create. Second, they err in thinking of natural endowments as relevantly similar to natural resources. Luck egalitarians think the relevant similarity is that both are undeserved. They are right that natural endowments are undeserved (and that their economic value is largely due to the division of labor), but wrong to think that the person to whom they are naturally attached is not entitled to them. Natural endowments are parts of us and natural resources are not—that is the relevant dissimilarity, and it gives us an entitlement to our natural endowment even though it is undeserved. Luck egalitarians like Cohen (1995) do not recognize the importance of this dissimilarity because they

do not believe that we are self-owners, or at least, that the normative importance of self-ownership is outweighed by the normative importance of equality.

Other luck egalitarians, like Otsuka (1998), think that self-ownership and equality can be reconciled by distributing natural resource rents in a way that makes up for the inferior natural endowments that some receive. Though his approach is ingenious, Otsuka's argument ultimately fails. Otsuka's view is perhaps best conceived as a prioritarian form of Georgism: he thinks that the naturally disadvantaged should get a greater share of natural resource rents in order to make up for their natural disadvantage, so that both (1) the final distribution of welfare will be equal and (2) the self-ownership of the advantaged will not be infringed. The problem is that (1) and (2) are compatible only if self-ownership is understood in a very weak way: the self-ownership of the advantaged is respected as long as the advantaged have free access to enough natural resources to maintain a subsistence-level standard of living by using those resources, on Otsuka's view (1998, 83-86). If they would like to achieve anything more than subsistence, then the advantaged must pay rent to the disadvantaged who own all of the rest of the resources. But self-ownership requires something much more robust than this. Self-ownership requires that one receive everything that one produces, something that is inconsistent with the private appropriation of and the charging of rent for access to the things which one must labor upon. Recall that natural resource rents simply derive from the positive externalities caused by the productive activities of others. The economic value of natural resources does not appear *ex nihilo*; rather, it exists only because there are more productive uses we can put resources to than there are resources. As such, allocating natural resource rents to the disadvantaged is indirectly a way of compromising the self-ownership of the advantaged. The only way to protect the self-ownership of everyone is to distribute natural resource rents not only to the disadvantaged, but rather to everyone in proportion to how much of the natural resource rents they are responsible for creating.⁴¹

⁴¹ One can also raise questions about Otsuka's contention that there will be enough natural resource rents so that an equal outcome can be achieved when they are redistributed to the naturally disadvantaged. In order for this to be possible, the sum of the differences between everyone's natural endowment and the best natural endowment that exists must be less than the sum of all of the natural resource rents. I see no reason why this should be the case.

6. Conclusion

In this paper I have constructed a view of distributive justice that takes as its only premise the fact that people own themselves. This premise is self-evident, or at least more secure than any premise of an argument inconsistent with it. Locke and Nozick claimed to derive a system of property rights from the premise of self-ownership, but their failure to understand the nature of natural resource rents caused their systems—which closely resemble prevailing property regimes in most developed countries—to actually be inconsistent with self-ownership because private appropriation of natural resources allows the owners to extract value from the users of natural resources. I have corrected this error in the standard libertarian view by holding that no one can privately appropriate natural resource rents. My view allows people to get exactly what their labor produces. This outcome is efficient because it provides people with an incentive to produce because it internalizes positive externalities. And it is just because peoples' self-ownership entitles them to what they produce.

This view, if implemented, would solve many of our social problems, including the ones I discussed at the start of the paper: the dual housing and inequality crises that are gripping developed countries. The fundamental cause of both of these crises is that we have allowed people to privately appropriate natural resources. Inequality is high and rising because land is unequally distributed, allowing a small portion of people to profit from the success of the entire economy to a degree that is disproportional to their contribution to that economy. High and rising land prices means high and rising housing costs, which make it much more difficult for young people to achieve economic security and start a family. And as I noted above, the current property regime is built on a history of exclusion, most importantly the exclusion of African Americans in the mid-20th century which is arguably the main cause of today's racial wealth gap.

The fact that natural resource rents are distributed according to a Lockean scheme and not a Georgist one is the cause of these problems. The inequities that contributed to the current racial wealth gap would be remediated by taxes on land. Housing would become more affordable because it would become less land-intensive; currently the government taxes both land and improvements through the property tax system, but on the Georgist proposal to only tax land, improvements would be significantly incentivized and much more housing would be developed, making housing more affordable. Property owners' incentive to prevent new construction would be abolished once their land's economic value is socialized. And Georgist policies would

encourage density in cities, which has important environmental benefits. Georgist policies would at once promote racial, housing, climate and economic justice. They would divide the pie in a more equitable way. But more importantly, they would grow the economic pie by providing people with the right incentives. These factors together make Georgism by far the best theory of distributive justice.⁴²

Bibliography

- Armitage, David. 2004. “John Locke, Carolina, and the ‘Two Treatises of Government.’” *Political Theory* 32 (5): 602–27.
- Arneil, Barbara. 1996. “The Wild Indian’s Venison: Locke’s Theory of Property and English Colonialism in America.” *Political Studies* 44 (1): 60–74. <https://doi.org/10.1111/j.1467-9248.1996.tb00764.x>.
- Bernasconi, Robert, and Anika Maaza Mann. 2005. “The Contradictions of Racism : Locke, Slavery, and the Two Treatises.” In *Race and Racism in Modern Philosophy*, edited by Andrew Valls. Cornell University Press.
- Bishop, John Douglas. 1997. “Locke’s Theory of Original Appropriation and the Right of Settlement in Iroquois Territory.” *Canadian Journal of Philosophy* 27 (3): 311–37.
- Christophers, Brett. 2018. *The New Enclosure: The Appropriation of Public Land in Neoliberal Britain*. Illustrated edition. London ; Brooklyn, NY: Verso.
- Clark, William A.V. 2012. “Do Women Delay Family Formation in Expensive Housing Markets?” *Demographic Research* 27 (1): 1–24. <https://doi.org/10.4054/DemRes.2012.27.1>.
- Cohen, Gerald Allan. 1995. *Self-ownership, Freedom, and Equality*. Cambridge University Press.
- Economist. 2023. “Detroit Wants to Be the First Big American City to Tax Land Value.” Accessed February 22, 2024. <https://www.economist.com/united-states/2023/10/05/detroit-wants-to-be-the-first-big-american-city-to-tax-land-value>.
- Eden, Maya, and Kevin Kuruc. Manuscript. “The Long-Run Relationship between per Capita Incomes and Population Size.”
- Ephraim, Laura. 2022. “Everyone Poops: Consumer Virtues and Excretory Anxieties in Locke’s Theory of Property.” *Political Theory* 50 (5): 673–99. <https://doi.org/10.1177/009059172111048420>.
- Forrester, Paul. Manuscript. The Generalized Market Failures Approach. <https://philarchive.org/rec/FORTGM>
- Filmer, Robert. 1680. “Patriarcha, or the Natural Power of Kings”. Online Library of Liberty. Accessed February 21, 2024. <https://oll.libertyfund.org/titles/filmer-patriarcha-or-the-natural-power-of-kings>.
- Frank, Robert H. 2005. “Positional Externalities Cause Large and Preventable Welfare Losses.” *The American Economic Review* 95 (2): 137–41.

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- George, Henry. 1879. *Progress and Poverty: An Inquiry into the Causes of Industrial Depressions and of Increase of Want with Increase of Wealth: The Remedy*. New York: D. Appleton and Company.
- . 1898. *The Science of Political Economy*. New York. Doubleday and McClure Co.
- Hohfeld, Wesley Newcomb. 1917. “Fundamental Legal Conceptions as Applied in Judicial Reasoning.” *The Yale Law Journal* 26 (8): 710–70. <https://doi.org/10.2307/786270>.
- Hsieh, Chang-Tai, and Enrico Moretti. 2019. “Housing Constraints and Spatial Misallocation.” *American Economic Journal: Macroeconomics* 11 (2): 1–39. <https://doi.org/10.1257/mac.20170388>.
- Locke, John. 2002. *Two Treatises of Government*. Dover.
- Linklater, Andro. 2003. *Measuring America: How the United States Was Shaped By the Greatest Land Sale in History*. Reissue edition. New York: Penguin Publishing Group.
- . 2015. *Owning the Earth: The Transforming History of Land Ownership*. Reprint edition. Bloomsbury USA.
- Mulligan, Thomas. 2018. “Do People Deserve Their Economic Rents?” *Erasmus Journal for Philosophy and Economics* 11 (2): 163–90. <https://doi.org/10.23941/ejpe.v11i2.338>.
- Nozick, Robert. 2013. *Anarchy, State, and Utopia*. Reprint edition. New York: Basic Books.
- Otsuka, Michael. 1998. “Self-Ownership and Equality: A Lockean Reconciliation.” *Philosophy & Public Affairs* 27 (1): 65–92.
- Pew Research Center. 2023. “Young Adults in the U.S. Are Less Likely than Those in Most of Europe to Live in Their Parents’ Home.” Accessed February 21, 2024. <https://www.pewresearch.org/short-reads/2023/05/03/in-the-u-s-and-abroad-more-young-adults-are-living-with-their-parents/>.
- Piketty, Thomas. 2014. *Capital in the Twenty First Century*. Translated by Arthur Goldhammer. Cambridge, Massachusetts London: Belknap Press: An Imprint of Harvard University Press.
- Ricardo, David. 2010. *On The Principles of Political Economy, and Taxation*. <https://www.gutenberg.org/ebooks/33310>.
- Rognlie, Matthew. 2016. “Deciphering the Fall and Rise in the Net Capital Share: Accumulation or Scarcity?” *Brookings Papers on Economic Activity* 2015 (1): 1–69. <https://doi.org/10.1353/eca.2016.0002>.
- Rousseau, Jean-Jacques. 1775. “A Discourse Upon the Origin and the Foundation of the Inequality Among Mankind.” <https://www.gutenberg.org/ebooks/11136/pg11136-images.html>.
- Smith, Adam. 2002. *An Inquiry into the Nature and Causes of the Wealth of Nations*. <https://www.gutenberg.org/ebooks/3300>.
- Steiner, Hillel. 2009. “Left Libertarianism and the Ownership of Natural Resources.” *Public Reason* 1 (1): 1–8.
- Thorpe, Francis Newton. 1998. “The Federal and State constitutions, colonial charters, and other organic laws of the state[s], territories, and colonies now or heretofore forming the United States of America /compiled and edited under the Act of Congress of June 30, 1906.” Text. Washington, DC : Government Printing Office, 1909. December 18, 1998. https://avalon.law.yale.edu/17th_century/nc05.asp.
- Veblen, Thorstein. 2016. *The Theory of the Leisure Class*. CreateSpace Independent Publishing Platform.