Justice, Territory, and Natural Resources

Introduction

Territorial self-determination and global distributive justice seem to be at loggerheads. Proponents of the former – call them "self-determinists" – who insist on the significance of links between particular groups and particular places, typically argue that global distributive regimes should have only limited weight against claims to territory such as "national homelands" (Rawls, 1999; Miller 2000, 2007; Meisels 2009). On the other hand, proponents of global distributive justice – "cosmopolitans" – deny that intervening institutions (such as states and their borders) can be justified except insofar as they are derivative on global equality (Moellendorf, 2002; Tan, 2001; Brock, 2009).

In cosmopolitan terms, the division may be understood to be over the robustness of subsidiarity: whether (and to what degree) basic distributive regimes must bend to accommodate smaller-scale conceptions of the good or shared understandings about justice, which may cause distortions both within and across group boundaries. In self-determinist terms the division may be understood to be over the degree to which national groups can chart their own destiny: whether they must organize their political and economic lives around a global basic structure, or whether they may pursue particular economic and political frameworks, even if those frameworks make them better- or worse-off, in distributive terms, than they putatively ought to be.

The notion of *resources* is at the heart of this debate. Cosmopolitans need a standardized

conception of resources so that a fair distribution principle can treat all claimants equally. A self-determinist, on the other hand, wants to ensure that each group can both understand resources as it sees fit, and marshal them for its own projects, without suffering excessive intervention from outside.

In this paper I shall outline a theory of resources that purports to unify the two frameworks. My hypothesis is that the self-determinist objection to cosmopolitanism has to do less with principles for the just distribution of resources, than with what counts as a resource in the first place. A self-determinist should accept a cosmopolitan principle of resource distribution, provided that the account of resources is suitably *claimant-relative*. A cosmopolitan should accept this claimant relativity because it is grounded in a morally cosmopolitan theory of territorial rights, and licenses a cosmopolitan principle of resource distribution for those things that count as resources.

Cosmopolitans may object already that groups' feelings of attachment to particular places cannot claim as fundamental a normative status as equality, since normative individualism would accept the claims of *peoples* only insofar as they do not derogate from the claims of *persons*. I will argue, however, that the claimant-relativity generated by a theory of territorial rights is necessary for equal consideration of all persons; without it, cosmopolitanism fails to respect the diversity of ways in which persons are benefited or burdened. High quality of life is multiply realizable.

In what follows I first lay out three conceptions of resources: the familiar *natural resources* conception assumed by most liberal cosmopolitans; the *physical* conception developed by Tim

Hayward; and Ronald Dworkin's *constructive* conception. Each has important virtues as well as limitations, but the limitations become fatal flaws when each conception of resources is married to a cosmopolitan principle of resource distribution. I then propose an alternative, *intentional* conception of resources that avoids the fatal flaws of each approach. This intentional conception can be joined to a cosmopolitan distribution principle provided we plug in an attractive, claimant-relative, account of *whose* intentional states determine the character of the resource. This account is provided by the theory of territorial rights. The remainder of the paper is then devoted to working out the relationship among the conception of resources, the territorial rights theory, and the principle of distributive justice.

Let me note a few limitations and assumptions of my discussion. First, while I use global egalitarianism as an attractive standardizing assumption across the four theories of resources, I do not defend this distribution principle as against any other in particular. My approach should be compatible with a variety of theories of just distribution *per se*. It is also compatible with a range of theories of territorial rights – indeed, with any theory that does not simply dissolve such rights into individual rights or a single-end consequentialism.[1] In other words, the thrust of this paper has to do not with defending a particular theory of just distribution or of territorial rights, but with the methodological or "metanormative" task of charting the relationship between resource justice and territorial rights.

I also do not have anything to say here about implementation. For convenience I speak in terms of taxation because that notion captures both the practices of adjusting an extant distributive

state, and of assessing fees for types of transactions. I do, however, make a significant assumption about the *currency* of global justice: it must somehow involve the just distribution of *resources*. This term is problematic – indeed, the heart of this paper is the theory of resources – but of equal concern is that there is more to justice than just distribution, and more to that than the just distribution of resources. Nonetheless, justice in access to, control over, and profits from resources is surely at least part of justice, and it is in tension with territorial rights, which are widely held to include monopoly control over internal natural resources.

There are two deeper points where my approach is, I believe, fruitful, but which I cannot develop at sufficient length in the current paper. First is the tension between justice as non-domination and justice as fair distribution. Cosmopolitans tend to be most engaged with distributive questions, frequently accusing nationalist and other anti-cosmopolitan approaches of failing to repudiate invidious global inequalities. But the tradeoff is that cosmopolitan theories have less normative bite against structures of domination that bring unwilling participants under the reins of coercive global structures of governance. Anti-cosmopolitans have the opposite problem, pushing self-determination even at the expense of equality. My approach hopes to capture important strands of each without losing hold of either.

Second, a growing body of work attempts to integrate environmental concerns into the theory of justice, particularly global justice. Tim Hayward, whom I discuss at length below, is a standard-bearer of this movement, thinking deeply and clearly about normative implications of the distribution of "ecological space," or *ecospace*. I welcome this long overdue development. But

even as we address questions of justice in the distribution of ecospace, we must not ignore justice in the distribution of what we might call "geographical space," or *geospace* – by which I mean the physical location and particular units or bundles of physical stuff that claimants hold.[2] Particular places, and collective attachments to them – such as the Tibetans' interest in Tibet itself, over and above their being able to appropriate some abstract packet of global average biocapacity – seem to matter from the standpoint of justice. To ignore geospace is to miss not just the stuff of territorial rights but the infrastructure of any feasible egalitarian politics. The challenge is, so to speak, to map ecospace onto geospace: to attend to the local character of political life and interests, while keeping in focus the global character of our ecological crises and political economy. The theory of resources and of resource justice sketched here is an initial attempt to do that.

Resources and Justice: Three Approaches

Theories of resource justice have focused on arguments over the principle of just distribution. But at least as important is understanding what a resource is. In this section I shall lay out and challenge three views of resources. The first is the default *natural resources* conception, shared by such authors as Charles Beitz (1999), Thomas Pogge (2002), and David Miller (2000), and typically presupposed in neoclassical economics. The second is the *physical* conception, developed by Tim Hayward (2005, 2006) and grounded in ecological economics, which offers a corrective to the natural resources conception and seeks to marry environmental justice with global distributive justice. The third is a *constructivist* conception, developed by Ronald Dworkin (2002) and "luck egalitarians." Each conception offers important insights but also

carries significant limitations, which become clearest when the accounts of resources are appended to egalitarian theories of just distribution. The next section presents an alternative theory of resources, the *intentional* conception, which synthesizes the virtues of the first three approaches to reach a conception of resources that is both universal and claimant-relative in the desired senses.

According to the natural resource conception, resources are physical objects (including processes and arrangements of things) that are economically valuable to someone or other, and hence, to whoever controls them. Resources in this sense physically constitute countries; states' control over them – reflected in the doctrine of permanent sovereignty over natural resources – is typically considered to be essential to statehood. When incorporating resources into theories of justice, natural resource theorists must decide between valuing the bundles of resources themselves (Beitz 1999), and valuing the stream of benefits gained from exploiting the resources (Pogge 2002). Each approach is problematic.

Consider first the stream-of-benefits approach. The chief attraction of taxing only the stream of benefits is that, in addition to decreasing inequalities, it would reduce the incentive to extract, improving conservation and insulating states from "Dutch Disease" and the resource curse. Thomas Pogge's Global Resource Dividend is the best-known instance of this approach (Pogge, 2002: 196-214). But as Locke (1988) noted, land itself is relatively insignificant as a quantum of the total market value of any finished good; far more significant is what we do with the resource once it is extracted. Therefore, as Tim Hayward (2005) demonstrates, taxing just the extraction,

but not the addition of value to it, would make little difference to extreme poverty or radical inequality. To the contrary, since poor countries are disproportionately reliant on the extraction of resources, they would be disproportionately penalized in the name of a tax that was supposed to benefit them in the first place.

A stream-of-benefits theory also cannot attend to resources that, though *unconsumed*, are not un*exploited*. Sometimes, the having of a natural resource is itself a resource, which we exploit not by extracting but by leveraging it. Our country might exploit its reserve oil, without drilling all or any of it, by leveraging it to cultivate a good relationship with another country that needs a reliable supply of oil. This may give us access to their markets for other products, or allow us to rely on their military to defend us instead of paying for our own – causing them to increase their ecological footprint and putting a drag on their economy for our benefit. Justice does not care only about our consumption but also about the bundles of particular stuff that we control, including who else has similar bundles, their size and character relative to the total quantity of such stuff or its substitutes the world over. A stream-of-benefits theory cannot capture this element of resource justice.

Furthermore, and crucially for our purposes, the unconsumed physical resource-stuff – the patches of soil, the lakes, the airspace – seem to be the essence of territorial rights. The stream-of-benefits theory purports to be material in that it is based on the political-economic consequences of natural resource consumption. But in its focus on this economic materiality it ignores the materiality of our living space.

Perhaps, then, the second approach – distributive justice as applying to the bundles (and processes) of resources themselves – will let us attend to unconsumed resources and material living space. The bundle theory would seem to provide the desired link to territorial rights, as well. In some sense there is nothing *to* territory but the bundles and processes of physical resources that compose it – the soil, the topography, the waterways, the underground minerals, the prevailing winds, and so on. To divide up resources fairly is to divide up the Earth fairly. But ironically, thinking in this way just sharpens the division between territorial attachment and distributive justice. Theories of distributive justice might care that I not exclude anyone from living next door to me, and they might care that everyone have a home, but such theories do not care whether the Smiths or the Joneses live next door to me. Analogously, distributive justice might care that everyone have one or another bundle of resources, and might care that no one be arbitrarily excluded from any particular bundle, but it will not care who has which particular bundle – or to the contrary, it might treat special territorial claims as arbitrary exclusions of others.[3] But then the question that seems to be at the heart of territorial-rights theories – who ought to be where – becomes impossible to ask. So even on the bundle approach, which is all about physical instantiation, territorial attachment again disappears from view as an element of justice.

Another problem with the bundle theory is that we might reasonably disagree about what bundles there are in a given piece of the Earth's surface. What counts as a resource at all is a variable, not a constant. And it does not vary based on natural factors alone, but also social factors and the

interaction of natural and social. Whether any given quantity of oil, say, is a resource is not just temporally and technologically variable but also, for lack of a better word, culturally variable. Hence the oil reserve's being a resource is also variable in these ways.

This cultural variability points to a deeper problem with natural resources. While their role in a theory of justice seems to arise from their physical character – their being the essential material building blocks of all economic value – natural resources do not obey the laws of physics: as natural resources, they come into existence only when valued (or discovered, or extracted); and they go out of existence when burned or used up (Hayward, 2006: 357). The individuation and persistence conditions of "natural resources" are different from those of their physical constituents. Hence natural resources, though *constituted by* physical entities, are not in fact physical entities in their own right. Natural resources are rather "intention-dependent" phenomena (Baker 2002). This presents the natural resource theorist with a choice: either theorize resources as intention-dependent bearers of value constituted by physical entities, or theorize the underlying physical entities that constitute them. The hybrid concept of "natural resources," however, amounts to an equivocation.

Tim Hayward (2005, 2006) proposes a theory of the underlying physical resources themselves. Physical resources do obey the laws of physics: they neither come into existence when we exploit them, nor go out of existence when burned; they merely change state, from, say, solid fossilized carbon to gaseous carbon and waste heat, or from unbounded energy to bounded energy.

From the standpoint of theories of justice, Hayward claims, the only significant physical resource is ecological space (or ecospace): the total amount of bioproductive capacity sustainably available on Earth each year, based on all energy inputs (the sun), natural capital (stored energy), and ecosystem services (processes, cycles, and so on). And the crucial measure of our consumption of resources is our *ecological footprint*: the total amount of ecospace that we use, be it in extraction, production, consumption, or disposal.[4] An ecological footprint, though a theoretic construct, is still a material entity: the total amount of space required to (sustainably) accommodate the life of a given person or group.

The physical conception has major advantages over the natural resource conception. First, the idea of ecospace internalizes waste-related externalities. Waste products need to be absorbed, which also consumes ecospace, and so on the physical model the waste that any actor produces counts as part of that actor's resource allocation. Consequently, Hayward's approach reflects the true environmental impacts of national economies more accurately than the natural resources model. Most of the value added in rich countries is added through inputs of human capital rather than extracted natural resources; yet these inputs typically consume significant amounts of ecospace, especially through greenhouse gas production. The natural resource model cannot count these inputs, but the physical resource model can.

Second, physical resources bridge the stream/bundle divide since, for Hayward, our relationship to consumed ecospace is one of ongoing original appropriation of a worldwide commons that is

continuously being replenished. The stream just is the bundle. This allows Hayward to apply a Lockean proviso: in our current circumstances, where the global footprint exceeds biocapacity, ecospace is zero-sum if not negative-sum, and thus "enough and as good" requires equality. In order to average out anomalies, he proposes allocating ecospace to existing states on a basis of per capita equality. Overconsumption would then be taxed at 100%, since the state in question would not have any entitlement to that excess, and presumably refunded to states that consumed less than their share. I shall refer to this distribution principle as "ecospace egalitarianism."[5]

The physical resource model is superior to the natural conception. But the physical conception still faces important difficulties. First, while it allows us to perceive ecospace as a resource, the physical conception has nothing to say about what I earlier called *geo*space – the physical location and particular units of physical stuff that claimants hold. If any aspect of a territorial holding *per se* can be regarded as a resource, then the physical conception must be incomplete. And it seems clear that this is the case. As noted above, it is possible to exploit resources without consuming them, for instance, by leveraging one's access to them in order to achieve other aims. And it is possible to benefit from them in place-specific ways that go beyond their bioproductive capacity (Ziegler 2007). Hence, geospace matters.

Hayward might reply that any accommodation of geospace threatens to eviscerate the redistributive effects of the shift from natural resources to physical resources. Taken in geospace terms, after all, Japan comes out as worse-off than Gabon (Hayward, 2006: 365).

I would not deny that ecospace matters. But the reply fails to show that *only* ecospace matters. Geospace matters, too. Claims of justice arise on both fronts. A principle for just distribution of ecospace will not solve territorial justice problems; to the contrary, it seems likely that it will distort them. For the two inevitably impinge on each other. Some resource bundles are geopolitically significant because they are unevenly distributed among the populations who need them. Such resources – the set of which changes across time and culture – can be leveraged in the way described above. For this reason, "havings" of these resources have distributive effects to which ecospace egalitarianism is insensitive. To be sure, not every resource has geopolitical significance. But some, such as rare earths, petroleum, and certain metals, do. So do resources that are concentrated in the temperate zones, such as freshwater and timber, though contemporary economics fails to reflect this because arid countries typically do not have the buying power to compete for them, and so go without. Some accreted *social* resources – particularly infrastructure – also have geopolitical significance. Yet geopolitically significant resource bundles are not physical resources and so a physical conception can neither address the justice of their distribution, nor allow extra ecospace to countries that have to start building infrastructure now.[6] In short: despite purporting to unify the stream and bundle approaches, the physical conception misses important aspects of the bundle approach, epitomized by a blindness to geospace.

A second reason for attending to geospace is that ecospace egalitarianism fails to consider differences in capacity (or willingness) to convert physical resources into well-being. People – particularly, but not exclusively, across groups – differ in what we might call their ontologies of

the material world. Groups with different production systems and values convert ecospace into welfare at different rates. For instance, nomadic, agrarian, and industrial economies will have different per capita footprints. Much of this difference is due to particular policy choices in industrialized countries that avoidably require huge environmental inputs to achieve little by way of quality of life improvements; added consumption has long since ceased to do much for overall quality of life, and in some cases may in fact detract from it (WWF, 2006: 19; UNDP, 1996: 67). But this should not occlude the fact that other times – for instance, where lower soil fertility or a shorter growing season requires more importation of food – lesser efficiency in converting ecospace into welfare is not blameworthy (Sen, 1999). And because such differences hold across groups, state-level averaging does not cancel them out as it does individual-level differences. Thus ecospace egalitarianism will be unable to respect them.

Put simply, the first reply was that one can *exploit resources without consuming them*; the second reply was that one can *consume resources without exploiting them*. Ecospace egalitarianism can perceive only consumption. But considering geopolitically significant resources supports the hypothesis that nonconsumptive exploitation should also count, and considering global diversity suggests that nonexploitative consumption should be exempt. If so, then the real target of just distribution is resource *exploitation*, consumptive or otherwise. But then the theory of the just distribution of resources must be in the business of drawing lines between exploitation and nonexploitation of resources.

The natural resource conception failed because it was built on the confusion of treating intention-

dependent phenomena as though they were physical entities. The physical conception overcame this confusion by dropping intention dependence, but lost in the process the ability to account for nonconsumptive exploitation. I propose to solve the confusion the other way: by embracing the intention dependence. Resources are not mere things but rather things under a description. Before a thing can be a resource we must adopt a certain stance toward it. The question is *whose* stance is to be decisive? And given this relativity, how can the claims of cosmopolitan justice be respected? One answer to these questions can be found in Ronald Dworkin's constructive conception of resources. The remainder of this section deals with his answer; in the next section I shall propose an alternative.

Ronald Dworkin (2002) proposes a constructive conception of resources that underpins a liberal conception of the person. For Dworkin, a resource is any nonhuman quantum of the material world. This far, Dworkin's view parallels the physical conception. The constructivist character of his account appears, however, in the way the distribution principle shapes the account of resources. Dworkin famously imagines a resource auction that distributes everything on a desert island where we have been shipwrecked. The lots in this auction are such because they are a) nonhuman and b) identified by bidders as worth bidding on. That is, the identity of the lots is determined by the bidders, not by an auctioneer. So if there is a tree here, and someone bids on the trunk of the tree only, then the trunk of the tree only is a lot at auction; someone else is free to bid on the rest of the tree. The bidders, by bidding, construct an ontology of the material world that aims at their individual conceptions of the good. Since no one has any more right than anyone else to realize her own conception of the good, *equality* of resources exists when each

person is equally able to choose resources to use or hold however she sees fit, provided she bears the cost to others of her choices.

A constructivist conception of resources seeks to be ethically thin, leaving each to pursue her own conception of the good, whatever it might be, and to determine for herself the relative values of all resources. This conception, then, operationalizes a liberal respect for diversity in conceptions of the good. The world contains whatever people happen to bid on.

The problem is that not everyone's ontology of the material world is equally idiosyncratic. Dworkin's assumption of a monocultural desert island auction, innocent of prior attachments to land or among persons, hides this fact. In reality, the good luck of having a larger population can allow some groups to impose their ontology onto others. Differences of power and population between groups with different ontologies will engender impositions of a favored ontology as against others. Only some bidders will then be able to construct the material world, with other bidders charged extra for their metaphysical disagreement. In the currency of the theory itself, then, these persons' ontological commitments and conceptions of the good are not respected: they will not have the wherewithal to outbid others for the resources they value.

For example, suppose it is 1930 when a Dworkinian resource auction transpires. The Bedouin population of Arabia is not interested in oil. The Bedouins have a lifestyle adapted to low population density and geographic mobility in the Arabian Desert. If they are to prevent the land's being purchased by oil entrepreneurs with the backing of millions of people in

industrialized societies, they will have to outbid all those people; having done so they will have to find a way to meet all the other needs that they no longer have the resources to meet in their preferred ways. They can do so either by becoming oil workers themselves, or by inviting in foreign oil workers and taking a cut of the proceeds in order to pay the tax on the resource bundle. If they cannot or choose not to outbid the industrialized horde, they will end up out of Arabia – or, if in Arabia, they will lose their geographic mobility and have to find something else to do. Perhaps they can become oil workers. What the Bedouins need here, if they are to keep their (by no means opulent) way of life when challenged by a theory of just distribution of resources, is the capacity to deny that the oil under their feet is a resource. Dworkin's auction might treat all persons equally given a shared ontology of the material world, but it does not treat all persons equally given differences in the prevalence of such ontologies.[7]

In a world of multiple groups with wide population differences, then, constructivism leaves (what we might call) "ontological minorities" vulnerable to outside efforts to commodify their land. Respecting such minorities' territorial rights at all requires, to put it in terms of the auction, either distributing extra buying power to them, or allowing them antecedently to individuate some of the lots – to determine what their territory has in it. But either solution would undermine the constructivist procedure that is the essence of this approach.

An Intentional Theory of Resources

To summarize our progress so far: the natural resource conception confuses intention-dependent phenomena for physical entities. The physical conception drops the intention dependence, but

therefore cannot distinguish between consumption and exploitation. The constructivist conception embraces intention dependence and a diversity of individual conceptions of the good, but it is blind to attachments among persons and between persons and places, such that some conceptions are favored over others due merely to numbers. In this section I propose a fourth alternative, one that, I hope, incorporates the strengths of these three. The account I propose is an *intentional* theory of resources. This approach, like Dworkin's, embraces intention dependence, and holds that resources are *intentional* kinds, not *natural* kinds. But the intentional conception departs from constructivism in allowing groups antecedently to individuate some of the lots at auction. The question is, then, what is the basis of individuation? My proposal is that a moral theory of territorial rights intervenes to allow morally legitimate holders of such rights to determine, within the scope of their valid claims, what is a resource and what is not.

The first step in developing this approach is to distinguish between natural kinds and intentional kinds. This difference is clear enough in action theory: a given physical event (a hand going up) may instantiate any number of acts (voting, volunteering, trying to catch a ball); and a given act (voting) may be instantiated in any number of physical movements (pulling a lever, pressing a button, raising a hand, filling in an oval). The very same (token) vote may be instantiated with two distinct physical movements, for instance, initially with an "Aye" spoken aloud in unison, and then, when someone calls for division, with a raised hand or the click of a button. In short, natural and intentional kinds have different individuation conditions. Obviously, intentional kinds are always materially instantiated; no act floats free of the natural world. But intentional kinds are not physical entities in the way that physical resources are. The "is" of predication or

instantiation is different from the "is" of identity. A theory of resources that treats them as natural kinds will ultimately confuse instantiation with identity. In contrast, an intentional conception keeps these separate. But then the burden of a theory of resources is to discern under what conditions it becomes the case that some entity – say, the oil under Arabia – is a resource. And the role of a theory of resource distribution is to determine not just how many resources anyone should control, or what benefits they should be able to capture from their exploitation, but crucially, the prior question: who says that something is a resource in the first place?

A moral theory of territorial rights answers this prior question. The territorial right grants the right-holder the capacity to adopt a particular attitude toward the natural world, and to have that attitude be decisive in a particular packet of geospace. I emphasize that the relevant theory here is a *moral* theory of territorial rights. Such a theory allocates geographical places to particular claimants on the basis of some normatively significant sort of attachment linking groups to particular places. In the current states system, a *legal* right to territory includes permanent sovereignty over natural resources. The current paper does not defend permanent sovereignty over natural resources. Such sovereignty is both too strong and too weak. It is too strong because it seems to rule out compulsory taxation of the resource base. But permanent sovereignty is also too weak, since it presupposes a uniform natural resources model, and hence the role of the sovereign state is to control resources and bring them to market, but not to determine whether they are resources at all. Without this "right of resourcehood," permanent sovereignty over natural resources is nothing more than the capacity to turn the spigot on or off, so to speak, and take a cut of the action. The right-holder is then merely a subcontractor for transnational

economic actors. What is missing here is the territorial right-holder's capacity to determine whether the entity in question is a resource at all. The added right of resourcehood must be allocated through *moral* rights to territory.

A theory of resources adequate to territorial rights must recognize at least three aspects of resources, each of which is imperfectly modeled by one of the conceptions of resources canvassed above. First, from the physical conception, is the ecological impact of resource control and exploitation; second, from the natural resources conception, is the wealth gained by control of both the stream of benefits of exploitation and the spigot for turning that stream on and off; and third, from the constructive conception, is the capacity to realize one's ontology of the material world through determining what counts as a use of resources.

To meet these demands I propose a deceptively simple theory of resources: something is a resource insofar as it is a *fungible means*. Something that is fungible is replaceable by other means to the same end, or convertible without loss into money. If I need gasoline for my car it doesn't matter which particular molecules I put in, which particular station I patronize, or even where in the world it came from. As far as I am concerned, units of gasoline are fungible. Moreover, the only reason I care about it is that it works my car; if my car ran on ethanol, hydrogen, or electricity, I would have no use for gasoline. Thus we might fruitfully distinguish between "type-fungibility" and "token-fungibility." A kind of thing is token-fungible when *the particular unit used* – this gallon of gasoline – is replaceable without loss by another token of the same type. A kind of thing is type-fungible when the kind of thing itself – gasoline *per se* – is

replaceable without loss by tokens of other types. Something may be token-fungible and yet not be fungible in the way I intend. Type-fungibility is required for resourcehood.

Gasoline is also a means: I don't value it for its own sake.[8] We typically think of means (to an end) as temporally prior to their end. But the physical conception shows that waste must be counted as a resource. Hence "means" here should be understood to include not just tools used in a production process, but also (uncaptured) byproducts of that process. This may sound odd, but byproducts conform to the logic of means: they are parts of a production process, causally linked to the aim, but not valued for themselves.

The more precise definition, then, is: anything is a resource insofar as it is a type-fungible means, including uncaptured byproducts. The definition deliberately uses the connector "insofar as" rather than "if and only if." Most things can be intentional resources to greater and lesser degrees and in various ways. This may seem to be a problem with the intentional conception, since it imports an element of vagueness. But vagueness characterizes all the views we have discussed. For instance, the natural conception leaves open questions such as what concentration of coal is sufficient to count something as a "seam," and whether crude oil is still a resource if the process for extracting it violates environmental laws. And despite being predicated on its materiality, even the physical conception is vague, since the calculation of total ecospace requires decisions about how much to leave for wild nature, as well as what assumptions go into calculating global average biocapacity (Ziegler 2009).

Put simply, it is impossible to draw sharp lines between resources and non-resources. To the contrary, the attempt to do so is wrongheaded. For instance, the US Strategic Petroleum Reserve is big enough to influence world prices and can be leveraged in both domestic and international affairs. So the oil in the Reserve is a resource, and the Reserve itself is a resource as well. On the physical conception, in contrast, which seeks to draw a sharp line independent of intentions, the (unburned) oil in the reserve is not *yet* a resource, and the Reserve itself can *never* be a resource. On an intentional conception, however, both are resources.

Territorial Rights as Rights of Resourcehood

Let us return to the Bedouins. Contrast the Bedouins with the Saudi royal family before and after 1973. For the Bedouins, oil is not a resource even though they have it. For the early Saudi royals, oil itself is a resource: they turn the spigot on, for a fee. They are subcontractors for transnational capital. For the Saudi royal family since 1973, however, oil is a resource and oil reserves are also a resource: the family leverages its having of oil to achieve other aims. It moves, so to speak, from being a subcontractor to being an independent contractor. One might look at disputes between oil importers such as the US and UK, and exporters such as Iraq and Iran, as partly disputes about whether the exporters may only profit from their oil or whether they may also leverage it, that is, profit from their having of it.

Who should win such a dispute? Should the Bedouins be able to decide whether oil is a resource, or should the Sa`ud family? Should Iraq and Iran be able to determine whether oil reserves are a resource, or should the US? In the remainder of this paper I shall argue that the answer to these

questions depends on who has a morally legitimate territorial right over the resource. That is, a territorial right includes, among other things, the power to determine which things within the rightly held territory are resources. The reason that the territorial right should include this power is that morally legitimate territorial right-holders have particular ontologies of the material world which are manifested in legal, economic, and political structures as well as mundane practices of land use. Theorists of territorial rights may disagree about where to find such ontologies: the particular legal system and political history of the state (Nine 2008); the public culture of the nation (Miller 2007); the overlapping consensus of reasonable conceptions within a given People (Rawls 1999); the ethnogeography of the right-holder (Kolers 2009); or somewhere else. But what is essential is that these ontologies are *claimant-relative*.

The significance of this claimant-relativity can be understood by returning to the distinction between natural kinds and intentional kinds. *Land* is a natural kind; *resources* is an intentional kind; so land can be a resource only under a description. Putting it this way allows us to recast our question: whose description should prevail in any given place? The answer is: whoever has a morally legitimate territorial right to that place. If the claimant group regards petroleum as a type-fungible means, then the petroleum subject to that group's territorial rights is a resource; if not, then it is not.

But such intentional variability must be morally constrained. It is possible to value anything at all as a mere means. What happens when someone mistreats ends-in-themselves – in effect, moral persons – as mere means? It is possible for persons to treat other persons as *token*-fungible, but it

is not possible to treat persons as *type*-fungible, because the perpetrator, also being a person, would then have to regard himself that way. Thus the intentional conception of resources cannot regard persons as resources. More is, of course, required to ensure the full incorporation of this account of resources within a cosmopolitan moral order; all I have pointed out here is that the theory dovetails with a constitutionalized doctrine of human rights. Not just anything can be treated as a resource.

Returning to the problem of line-drawing *within* the realm of things that may permissibly be resources, a theory of territorial rights distributes what I earlier called "rights of resourcehood": capacities to treat particular packets of geographical space, and their contents, as resources. If the Bedouins have a territorial right in Arabia, then they have a power to determine whether the oil there is a resource. Assuming that for them it is in fact a non-resource, then it would be unfair to tax them for holding the resource. Because they are the territorial right-holders, their assumptions carry the day. But if they begin to exploit it by sale or leverage, then they are using the oil or the reserve itself as a taxable resource.

The general principle is that anything is a resource to the extent that (and in the way that) it is a fungible means for whoever holds a morally legitimate territorial right covering it. And just to that extent, they cannot reasonably object to a system of global justice that subjects the stream of benefits from exploitation to cosmopolitan redistributive taxation. But to the extent that the phenomenon is not a fungible means, it is tax-exempt at the global level.

This statement of the principle suggests an important objection. There is often no sharp line between those things that are and those that are not fungible means within a society. Things may be such in some ways and some cases, and not so in others. I have admitted as much. But, says the objection, this extends more deeply than I have supposed. For instance, a certain indigenous community may treat some salmon as resources, others as sacred, with the difference being determined by which "offered themselves up," in some way, to the fisherman. How can the theory determine whether and to what extent salmon are a resource? Is it not better to say that an intrinsic value here overlays an instrumental one, and there is no way to pull them apart?[9] Who determines, and on what basis, whether some resource is being leveraged? It may be leveraged to some degree, but not to the fullest; it may be leveraged in some contexts but not others.

The objection requires us to make a crucial distinction between two ways that territorial right-holders may "determine" whether something is a resource: by what they say about it, and by what they are doing with it. My account rests on the latter. We may then rely on empirical sciences and their criteria of evidence to discern several indicators of relative resourcehood. One is the presence or absence of unnecessary surcharges; their presence would reflect a certain degree of nonfungibility. For instance, some resources have maximum sustainable yields (MSYs) that can be imperfectly determined. If I harvest the resource up to its MSY, then no matter what story I tell about the intentions of the fish, I am using them as a resource; the only constraint on my exploitation is driven by resource management considerations. On the other hand, if I harvest only a fraction of the MSY, I thereby constrain the supply, which in turn inflates the price relative to the MSY baseline; the price differential then constitutes a surcharge on the resource; and the

amount of the surcharge reflects the degree to which the entity is not a resource. Another indicator is whether I act in a way that commodifies the resource. If the resource is traded on a domestic commodities exchange, this constitutes evidence that for my society, the phenomenon is a resource. If, however, members of my society, though not averse to commodities markets in general, do not participate in a transnational commodities market for that particular phenomenon, then it is not, for us, a resource. If we participate but at a lower rate than would be predicted given our participation in other commodities markets – reflecting, perhaps, a taboo felt by some but not others in the population – then that lower rate of participation would reflect the degree to which that phenomenon was not a resource. A similar indicator would work for leveraging: whenever we *could* get something if only we leveraged a resource, but *fail* to get it, this suggests that our having of the phenomenon is not a resource. Taxation should then be applied only on that portion of the phenomenon that is a resource.

It may be argued, however, that the problem repeats for territorial rights themselves: states might treat their territory *per se* – that is, their juridical relationship to the claimed geographical space – as a resource.[10] For instance, they might leverage their political independence or their capacity to change property law within their jurisdiction. I have proposed that territorial rights distribute rights of resourcehood. It is compatible with this proposal that states might use their territorial rights themselves as resources. They would then simply be taxed two or even three times: on the consumption, on the having of the resource, and on their territorial relationship to it. Each of these would net some profit; each would be taxable.

But the objection implies the further question of whether such leveraging would not impugn the territorial claim itself. That depends on the theory of territorial rights involved. Several (though not all) theorists of territorial rights do hold – if not quite in so many words – that claimants may not treat their territorial rights as resources without thereby undermining the rights-claim.[11] Elsewhere (Kolers 2009) I have agreed with this view. Nonetheless, as I have just shown, the current theory is compatible with either answer.

It may be objected that the current theory is conservative in its geopolitical implications and less redistributive than ecospace egalitarianism or indeed even Pogge's GRD, since it empowers extant states to decide, based on their own particular interests, which things are resources and hence, in effect, what their global resource tax obligations will be.[12] My reply to this is twofold. First, I have specified that the claimant whose perspective matters is the *morally legitimate* territorial right-holder, not the current territorial sovereign; and I have implied no role at all for extant states. If the current claimant in a given country is morally illegitimate, then that claimant's perspective is not dispositive; and if the state as we know it is rejected as a basis of political organization, my account is unaffected. Concretely which claims are morally legitimate and which are not in the current world order, and how "sovereign" any morally legitimate claimant ought to be, turns not on the theory of resources but on which particular theory of territorial rights turns out to be true.

Second, as noted above, I have avoided suggesting that any claimant has the power to *decide* which phenomena are resources. Rather, claimants have the capacity to *determine* which entities

are resources. They do so not by simply deciding willy-nilly, but by the answer's being implicit in the social and economic practices of the society. The United States might hire Aldo Leopold to head the US Forest Service, but if standard Forest Service practice is simply to harvest trees at the MSY, then the US regards trees as a resource, irrespective of what anyone says. Actions are intentional kinds, but their nature is still an objective (or at least intersubjective and externally determinable) fact of the matter. If this were not so, then no defendant could ever be found guilty. We cannot choose the meanings of our actions any more than we can choose the meanings of our words. The current theory does not allow states or anyone to decide for themselves what their actions mean. Instead, it tells us where to look to discern which actions are underway.

To summarize, then, I have proposed the following general principle: anything is a resource to the extent that it is a type-fungible means (including uncaptured byproducts) for the group that holds a territorial right covering it. And just to the extent that it is indeed a resource, its distribution is part of the subject-matter of distributive justice. But to the extent that it is not a fungible means, it is immune to distributive justice considerations. These considerations may be quite fine-grained, as resources are regarded as fungible to one degree or another, or in some ways but not others. But I have suggested that it is both possible and desirable to make these fine-grained distinctions, and anyway, needing to make them does not distinguish the current theory from any other theory of resources.

Implications

My results differ from Hayward's in at least three ways. The first is that some uses of resources

are not consumptions of ecospace; those who have oil can be taxed for leveraging it, not just burning it, and hence may be taxed even beyond their ecological footprint. The second is that some consumptions of ecospace are not uses of resources; they might extract some of the oil but not treat it as a resource, for instance if they regard it as sacred and use it for religious rituals without trading it, and in that event they should not be taxed even if the extraction adds to their ecological footprint.

The third difference explains the first two: whereas Hayward's physical conception of resources is *material* and *directly* universal, the current one is *intentional*, and its overarching universalism is mediated by *claimant-relativity*. Whether and to what degree an oil reserve is a resource at all depends on the behavior of whoever holds the morally legitimate territorial right that encompasses that oil. But the claimant relativity is not absolute; the crucial question is about *behavior*, not *beliefs* (or still less, stories). The Bedouins don't get to sell their oil on the commodity market and avoid taxes by claiming to want only the empty space underground that the oil used to fill, perhaps for carbon sequestration. If they did that, they might thereby also turn the empty space into a taxable resource. Further, they also do not get to use the oil as a resource even as they deny that they are doing so; whether something is a fungible means is an intentional feature but is still possible to determine objectively from the outside.

By subordinating the identity and individuation of resources to the theory of territorial rights, we legitimate the practice of treating resources, when they are resources, as simple market goods subject to cosmopolitan distributive justice considerations. And by insisting that the theory of

territorial rights itself be morally cosmopolitan, we legitimate the inclusion, within such rights, of the rights of resourcehood that are essential to the intentional theory.

These results may seem inadequately redistributive on grounds that they may not subject the entire ecological footprint to distributive justice criteria. This is not quite accurate. My proposal does subject the entire ecological footprint to distributive justice criteria, but not to a single, uniform criterion, and not *qua* ecological footprint. The theory of territorial rights constitutes a principle for the just distribution of capacities to determine what is a resource (i.e., rights of resourcehood). I have not here provided a theory of territorial rights, but the proposal developed here is compatible with a number of such theories. So a more accurate version of this charge would be that my account does not subject the entire ecological footprint, so described, to a uniform criterion of distributive justice. I believe that the refusal to do so is a strength of the current approach, since it protects (what I earlier called) "ontological minorities" who resist conscription into a hegemonic global economy, or who attempt to modify the terms under which they participate. It is conceivable that, in insulating these groups, the current approach will be less redistributive than an ecospace approach. But this seems improbable, since groups that are insulated from the market typically have relatively small ecological footprints.

Further, by treating uncaptured waste as a resource, my approach includes the demands we place on Earth's absorption capacity. Even when oil is not a resource, for example, it may still have atmospheric carbon as a byproduct: if the only oil well is inside a temple and the high priests burn it only for blessings, they would not be taxed for their oil use (since oil is not a resource to

them) but *would* be taxed for their carbon emissions, since those are fungible means.

A further advantage of my approach relative to the ecospace approach arises from the fact that Earth's biocapacity – the total number of global hectares available – is a variable, as is, obviously, Earth's *per capita* biocapacity. Moreover, biocapacity is partly subject to human agency because we can undertake policies that increase or decrease both total and per capita biocapacity. A country receiving enough sunlight might put solar panels or shingles on every house while reducing reliance on coal, thereby increasing the world's biocapacity and hence the per capita ecological space available to everyone in the world. Another country might undertake intelligent population policy to reduce global population or population growth, thereby increasing per capita ecospace. Ecospace egalitarians would seem to require that this added ecological space immediately be parceled out to everyone equally, sharply reducing any country's incentive to deploy solar power generators or undertake intelligent population policy. On the contrary, the resources consumed in manufacturing, deploying, publicizing, and so on would count against the user alone, while the per capita biocapacity thereby gained would count in favor of everyone. The benefit would be externalized and the cost internalized.[13] My approach need not mandate ecospace egalitarianism, and hence, could reward those who expand Earth's absolute or per capita biocapacity.

Nonetheless, it might be charged that if sunlight is treated as a resource, then I would subject the sunlight to distributive justice, and hence get the same perverse incentive. I would deny, however, that the incentive would in this case be perverse. If Arizonans exploit or leverage their

desert sunscape this should indeed count as resource use, no less than if the Arabians leverage their oil. And if Arizona can raise billions of dollars by becoming "the Saudi Arabia of solar power," so to speak, then it should indeed be taxed on this money to help those who have less access to sun. The only question is whether the tax would be so great as to create a disincentive for solar power relative to coal or oil. And there is no reason to fear this because fossil fuels also pollute, and so use byproduct resources, while solar energy does not.

Conclusion

I have argued that resources are intentional kinds, not natural kinds. Thus cosmopolitan resource egalitarianism must be structured by a theory of territorial rights that says whose intentions should determine which things are resources in a given place. Once it is determined which things are resources, they are distributed by a universalistic principle such as resource egalitarianism; and the question of who makes these determinations is also answered by a universalistic principle, namely, the theory of territorial rights. But mediating between the two is a claimant-relative element that is essential for treating territorial claimants fairly – particularly for insulating those who are less market-exposed, and for holding accountable those who leverage their reserves of valuable resources. I have argued that this account captures the nature of resources better than the natural, the physical, or the constructive conception.

The theory I have proposed can plausibly claim to have reconciled cosmopolitanism with self-determinism. The theory shares with cosmopolitanism a commitment to equal treatment of all persons regardless of group membership, and a recognition that equal treatment entails some

actionable minimal standards of material well-being and human rights worldwide, in this case through a cosmopolitan resource distribution principle. Yet the theory shares with self-determinism an insistence on meaningful subsidiarity – significant self-determination of groups below the global level – and on the moral significance of links between particular claimants and particular places. The theory thus incorporates foundational moral commitments of each of the two perspectives whose discord animates so much of the global justice literature.

In addition, the implications for global justice are likely to be more redistributive than the paradigmatic egalitarian distributive principles that attach to the three resource conceptions: Dworkinian resource egalitarianism, Pogge's GRD, or Hayward's ecospace egalitarianism. I have also claimed that the intentional conception would be less conservative inasmuch as it is more flexible than these other views in accommodating minority perspectives and protecting groups that, through no fault of their own, are less efficient at converting ecospace into welfare. If the argument goes through, it shows that territorial rights and global distributive justice can be fruitfully combined, and indeed, that combining them enhances the moral justification of each.

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Notes

[1] For example, the theory sketched here should be compatible with the views in Simmons (2001); Buchanan (2004); Meisels (2009); Christiano (2006); Miller (2000); Nine (2008); Kolers (2009); and Stilz (2009).

[2] "Geospace" means something entirely different in astronomy. Here I mean by it only the definition in the text.

[3] I don't mean to beg any questions against a Nozickian "historical" theory. The Smith/Jones point is compatible with a historical theory. Justice cares if the Smiths stole the house from the Joneses. It cares about history, but it does not care which named individual enacts which particular history. If people pay Wilt Chamberlain for philosophy lectures and Robert Nozick for basketball, then so much the better.

[4] For an accessible treatment of the basics of ecological footprints and global biocapacity, see World Wildlife Fund (2006).

[5] (Hayward, 2005); Rafael Ziegler (2007, 2009) raises some important problems for Hayward's use of ecological footprints as a measure of ecospace as such, and for the use of ecospace as an

empirically adequate and morally attractive conception of physical resources. My critique below is orthogonal to Ziegler's, but my solution goes some way to addressing his concerns.

[6] Hayward might reply that the physical conception could allow extra ecospace to impoverished countries, by counting all ecospace *ever* used by a society, past, present, and future, against its total allotment. This potential reply raises further problems of social ontology and collective agency that do not help Hayward's view, but which go beyond the scope of the current paper. I thus leave aside the whole question.

[7] Nagel (1975: 9) raises a similar criticism of Rawls's conception of the primary social goods.

[8] Indeed, it is a means to a means, since I don't even value my car for its own sake. There is no harm in iteration here, though, since the question is how I value something, not what its fundamental nature is.

[9] I am grateful to Burke Hendrix for both the objection and the compelling example.

[10] I am grateful to Margaret Moore for this objection.

[11] This view is shared, albeit sometimes implicitly and for various reasons, by Simmons (2001); Meisels (2009); and Stilz (2009).

[12] I am grateful to an anonymous referee for this objection.

[13] Vanderheiden (2009: 272) denies that discovering ecospace efficiencies such as I have described can be a legitimate basis of Difference-Principle inequalities, since the innovator will already have realized the benefit in question by being able to "derive more welfare from a constant share of ecological space." This seems to ignore the fact that the innovator will have incurred the cost of creating and deploying the new technology.