

FREE TRADE, POVERTY, AND THE ENVIRONMENT

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INTRODUCTION

Proponents of free trade argue that the moral case for free trade is strong in light of the fact that it is the quickest way to reduce poverty. In fact, the view that free trade is good for the poor is so widely accepted that it is hard to get a word in edge-wise. The Economist, the World Bank, and the International Monetary Fund accept this claim with nearly dogmatic ideological passion.¹ Many philosophers, economists, and lawyers are similarly convinced that the case for free trade is strong because it will reduce poverty.² For instance, Fernando Teson and Jonathan Klick follow many economists in suggesting that the Argument from Comparative Advantage largely vindicates this conclusion.³ On the other hand, opponents of free trade counter, just as dogmatically, that free trade will lead to environmental problems like climate change.⁴ For instance, some advance the Race to the Bottom Argument on which free trade will put downward pressure on regulatory standards increasing pollution and, so, environmental problems.⁵

This paper considers the case for free trade on the assumption that there is an obligation to reduce poverty and mitigate environmental problems.⁶ After showing how the tension between the proponent and opponent of free trade can be overcome, it canvases and defends a class of proposals that capture the benefits of free trade for the poor and the environment while avoiding the costs. Trade-related adjustment assistance programs, linkage, trade barriers, and consumer movements (like the Fair Trade movement) may be necessary and desirable. The WTO's proscription of many of these alternatives may be unjustifiable.⁷ At least, the paper concludes, these alternatives merit consideration if they are the most efficient means of helping the poor and the environment and appropriate institutional safeguard are put in place to prevent abuse.

Obviously, there are incredibly important and interesting questions about how to balance a concern for poverty against a concern for the environment (and how these concerns should be balanced against other concerns we might have). Most

philosophical work on poverty and the environment focuses on these questions. These questions are not the only questions worth considering, however. There is a lot worth saying even in the absence of answers to these questions. And, in any case, this paper considers what someone who cares about both poverty and the environment can say about free trade without such answers.

The first section of this paper sets out the normative framework we will use in considering the case for free trade. It shows that one who cares about the environment should care about the poor, and one who cares about the poor should care about the environment. It also points out that although a concern for the poor and a concern for the environment *may* give us reason to support trade policies that conflict these concerns may not lead to conflicting policy recommendations. The second section considers and critiques one of the main arguments for free trade: the *Argument from Comparative Advantage*. The third section articulates and examines one of the strongest arguments against free trade: the *Race to the Bottom Argument*. The fourth section considers an objection that applies to both sorts of argument. The fifth section suggests a few alternative trade policies that might help capture some of the benefits while avoiding some of the costs of free trade for the poor. Finally, the sixth section responds to objections to using trade policy to meet ethical objectives.

I. NORMATIVE FRAMEWORK

The Environment

There are many environmental problems. There is almost unanimous agreement within the scientific community, for instance, that climate change is happening.⁸ Most scientists also believe that climate change imposes non-negligible risk of serious harm to humans and other species.⁹ On some accounts, climate change could be catastrophic.¹⁰ If the Antarctic ice sheet collapses, sea levels may rise four to six meters and climate change could disrupt important temperature moderating ocean currents.¹¹ Worst case scenarios include massive droughts, extensive flooding, or even another ice age.¹² This paper will merely suppose, however, that there is an obligation to *mitigate* environmental problems like climate change.¹³ There are important questions about what mix of mitigation and adaptation to environmental problems like climate change is appropriate and who should bear the burden of paying for the necessary changes. But this paper will not address these questions.¹⁴

Many believe a sound environmental ethic requires much more than mitigating environmental problems. Some argue, for instance, that there is an obligation to respect animal rights,¹⁵ treat all teleological subjects of a life as members of our moral community,¹⁶ or protect ecosystems and the biosphere for their own sakes.¹⁷ Because environmental problems are likely to harm human and non-human life as well as ecosystems and the biosphere, there are many ways one could try to show that there is an obligation to mitigate environmental problems.¹⁸ This paper

will simply assume that there is such an obligation.

Poverty

Every hour sixty people die of measles,¹⁹ every minute fourteen people die of AIDs,²⁰ every thirty seconds malaria kills a child.²¹ Many of these deaths occur among the more than 800 million people who are undernourished or who cannot secure safe water, essential drugs, basic sanitation, or adequate shelter.²² About a third of all deaths, fifty thousand every day, eighteen million a year, are poverty-related.²³ Much of the premature death and suffering in the world could be easily prevented.²⁴ So, this paper will suppose that there is an obligation to enable all people in present and future generations to avoid poverty (insofar as it is affordable to do so).²⁵ Henceforth, we can say simply that *there is a moral obligation to reduce poverty*. At least this much is required.²⁶ There are important questions about who should bear the burden of enabling people to avoid poverty.²⁷ This paper will not address these questions, however.

Many people believe that a concern for the poor requires much more than reducing poverty. Some argue that there is an obligation to enable everyone to live a good human life,²⁸ give everyone equal opportunity,²⁹ or ensure that the global basic structure works to the maximal advantage of the least well off.³⁰ So, there are many ways that one could support the claim that there is a moral obligation to reduce poverty. In subsequent sections, however, let us simply assume that there is such an obligation.

Poverty and the Environment

A concern for the poor and the environment are connected. Those who care about poverty have reason to care about the environment.³¹ Natural disasters or famines have harmed billions of poor people in the last decade; hundreds of thousands died as a result.³² Hundreds of thousands of poor people also die every year from infectious diseases like malaria.³³ Environmental problems like climate change are likely to contribute to the devastation such diseases, disasters, and famines bring. Epidemiologists predict increasing malaria rates, climatologists argue that there will be a rising number of droughts and floods, and geologists suggest that there will be more natural disasters. The poorest are likely to suffer most from these changes.³⁴ They are the most exposed and the least able to adapt to changing environmental conditions.³⁵ Those who care about poverty have reason to care about the environment.

Conversely, those who care about the environment have reason to care about poverty. The poor, collectively, contribute a lot to environmental problems like climate change by using scarce sinks (like forests) and other non-renewable resources.³⁶ Swidden, or slash and burn, agriculture—usually employed by poor farmers who want to plant crops or raise cattle on marginal lands—causes immense deforestation. Poor people, who do not have access to electricity or gas,

burn a lot of wood and coal to cook their meals and heat their homes.³⁷ Moreover, as developing countries start using more fossil fuel, their emissions will rise. Developing countries are expected to emit more carbon dioxide than industrialized countries by about 2018.³⁸ Those who care about environmental problems, like climate change, have reason to care about poverty.

Because poverty and environmental quality are connected in these ways, if free trade benefits the poor, it will probably mitigate environmental problems like climate change, at least a little. Similarly, if free trade harms the environment it will probably increase poverty some. Of course, even if free trade increases environmental problems and this harms the poor in some ways, free trade may benefit the poor in other ways. Free trade's net impact on the poor may even be positive. Similarly, even if free trade decreases poverty and this benefits the environment in some ways, free trade may harm the environment in other ways. Free trade's net impact on the environment may even be negative. Still, conflict is by no means certain. Free trade may generally be good for both the poor and the environment or bad for both. When we consider arguments for and against free trade we, thus, need to consider the interaction between free trade's impact on the poor and its impact on the environment. The next section considers one theoretical argument for and one theoretical argument against free trade. Section four turns to these interactions.

The following inquiry is limited. It only considers what we should say about free trade in light of a concern for the poor and the environment. Hopefully, those who care about much more than this will be able to see many fruitful lines for further research in this inquiry. If there are more extensive obligations, these obligations may provide reasons to view the impacts of free trade differently. If there are more extensive obligations, however, we will need a way of deciding between these competing considerations before we can decide what should be done for sure. What follows may just be the first step on a long journey.

2. THE CASE FOR FREE TRADE

The Argument from Comparative Advantage

One of the main arguments for free trade is the *Argument from Comparative Advantage*. There are many versions of this argument, and other purely theoretical arguments, for free trade. Still, there are a few reasons to consider the details of the simplest version of the Argument from Comparative Advantage. First, free trade's advocates often rest their case for free trade's helping the poor on this argument.³⁹ Second, many of the other arguments for free trade share at least some of problems we will canvass for the simplest version of the Argument from Comparative Advantage.

A country has a comparative advantage in a commodity if the opportunity costs to that country for producing that commodity are less than the opportunity costs to another country of producing the same commodity. The opportunity

costs of producing a good in a country are the costs to that country in terms of the most valuable opportunity forgone. The concept of comparative advantage is different from that of absolute advantage. If a country has an absolute advantage in the production of a good, that country can make that good at a lower cost than another country. A country can have a comparative advantage in the production for a good, even if it costs the country more to produce everything than another country. The Argument from Comparative Advantage shows that if a country specializes in the production of those commodities in which it has a comparative advantage, it can gain from trade. A country can gain from trade *even if it does not have an absolute advantage in the production of any good*. So, the Argument from Comparative Advantage shows that poor countries can gain from trade even if they are not more efficient than rich countries at producing anything at all.

Assuming that workers are paid for their productivity, wages will also rise on this model as productivity rises. Under the standard neoclassical assumptions trade will continue until an Arrow-Debreu competitive equilibrium is reached. Such competitive equilibria are Pareto optimal. This is what the first theorem of welfare economics says. That is, if countries are allowed to trade freely, markets will reach a state such that no one can be made better off without making someone else worse off.⁴⁰ The poor will benefit in the process. (Those who are not familiar with the Argument from Comparative Advantage may want to review Appendix A now for a text-book explication of the argument).

Critique of the Argument from Comparative Advantage

According to the Argument from Comparative Advantage, if countries are allowed to trade freely, markets will reach a Pareto optimal state. They will reach a state such that no one can be made better off without making someone else worse off. How much poor countries will benefit from free trade will, however, depend on the terms of trade (see Appendix B). They may not benefit much at all. Worse, many of the assumptions required by the Argument from Comparative Advantage are important and unrealistic.⁴¹ The argument assumes that there are zero transaction costs, full employment, and homogenous labor markets within each country. The argument also assumes that goods produced in each country are identical and that consumers and firms strive to maximize utility and profit respectively. Furthermore, it assumes that labor cannot move between countries but that it costs nothing for laborers to switch industries. We know that many of these assumptions are false in the real world. Without these assumptions we can see that free trade may even hurt the poor. If, for instance, we do not assume that there will be full employment after trade, the argument does not tell us much about the distribution of benefits to individuals that will result from free trade. Poor people may not benefit from any resulting growth at all. They may even suffer. Poor people may, for instance, lose their jobs as production shifts to commodities made by people who are not poor. The case for free trade, thus, depends

on how closely actual markets approximate or can be made to approximate ideal markets.⁴² At best, Kaldor-Hicks Pareto optimality will be achieved with free trade in the real world. On the Kaldor-Hicks criterion, a change from one state of affairs to another is optimal if the benefits of the change exceed the costs of the change. The benefits could go to the rich and the costs to the poor. At least on this interpretation of the Paretian criterion, "Pareto Optimality can, like 'Caesar's spirit,' 'come hot from hell.'"⁴³

In sum, we cannot use the Argument from Comparative Advantage to conclude anything about the size of the benefits from free trade to poor countries or individuals. It may not tell us anything about the distribution of benefits from free trade within poor countries. It is possible that free trade will bring great gains to the poor or even completely eliminate poverty. But, since the assumptions of the Argument from Comparative Advantage do not hold, we cannot even be sure that the poor are more likely than not to benefit from free trade. Poor people may not benefit at all. Free trade may even make it less likely that some will avoid poverty in the real world. Perhaps we can conclude more from the Race to the Bottom Argument.

3. THE CASE AGAINST FREE TRADE

Many opponents of free trade are convinced that free trade negatively impacts the environment. In particular, they argue that the economic growth free trade brings is likely to increase environmental degradation. Some opponents of free trade believe that, as the scale of the economy increases, more wastes are produced and scarce *sinks* (like forests), that absorb these wastes, are used. They believe technological change associated with trade can create as many problems as it solves and free trade creates incentives for countries to decrease environmental regulation. These opponents argue that free trade is likely to lead to environmental degradation and problems like climate change. Each of these claims merits significant attention. Most are, essentially, a matter for empirical debate. The last worry about regulation has, however, a solid theoretical backing in the *Race to the Bottom Argument*. The next section will set out and critique this argument against free trade in more detail.

The Race to the Bottom Argument

The basic idea behind the Race to the Bottom Argument is simple. With free trade, industries are more likely to move across borders. Countries have different regulatory standards. So, industries have an incentive to move to countries with lower environmental standards. Countries, thus, have an incentive to lower environmental standards to retain or attract industry. *Ceteris paribus*, these incentives will lead industries to move to those countries with the lowest standards (a.k.a. *pollution havens*) and lead countries to lower regulatory standards.⁴⁴ So, industries

will emit more pollution including chlorofluorocarbons and greenhouse gasses which contribute to environmental problems like climate change.

Before proceeding, however, consider one important qualification. Free trade might cause a race to the bottom where we would not see falling standards. This might happen, for instance, if incentives to raise standards counter-balance or swamp the incentives to lower standards. If the incentives to raise standards are not trade related, free trade might still have increased environmental damage relative to the damage that would occur without free trade.

Critique of the Race to the Bottom Argument

There are a few ways one might challenge the Race to the Bottom Argument. One of the most promising responses is that, as free trade increases average income levels, demand for environmental regulation will rise.⁴⁵ This could reduce or eliminate the impact of a regulatory race to the bottom. It is even possible that we will eventually see *rising* rather than falling regulatory standards *purely as a result of free trade*. Countries may come to prefer having higher regulatory standards to lower regulatory standards because free trade increases their incomes. Free trade need not contribute to environmental problems like climate change at all; it may just speed up the transition to higher regulatory standards and lower pollution levels. Free trade may even reduce, rather than increase, the severity of such environmental problems.⁴⁶ If, for instance, countries start to prefer having high standards to low standards themselves, no matter how other countries set their standards, standards will rise.⁴⁷ Slightly different preference orderings may also allow countries to avoid a race to the bottom without generating a race to the top. Countries might prefer their current level of regulation to lower levels of regulation no matter what other countries do but also prefer their current level of regulation to unilaterally raising standards. Finally, there are other ways that the Race to the Bottom Argument could fail. Companies may not, for instance, prefer to increase emissions even in low standard countries as the threat of rising standards may make it prudent to invest in environmentally sound technology at the outset. Alternately, trade could create incentives for technological changes that reduce environmental damage even in the absence of environmental regulation. (Though, of course, trade-induced technological change could also increase environmental damage).

What is actually happening to countries' preference structures and what will happen in the future as a result of free trade reforms is not at all clear *a priori*. It is possible that countries' preference structures are as the Race to the Bottom Argument suggests and will not change. But it is also possible that they have never been as the Race to the Bottom Argument suggests. In short, we cannot conclude much from the Race to the Bottom Argument.

4. WHAT WE DO KNOW

We can use neither the Argument from Comparative Advantage nor the Race to the Bottom Argument to decide what free trade's impact on the poor or the environment will be. The rest of this section argues that, in practice, free trade probably has mixed effects. Some free trade reforms probably benefit the poor and the environment while others hurt the poor and the environment.⁴⁸ Some free trade reforms probably benefit the poor and hurt the environment while others benefit the environment and hurt the poor.⁴⁹ All other things being equal, the obligation to reduce world poverty and mitigate environmental problems provides reason to support reforms only insofar as they help the poor and the environment. So, subsequent sections consider some ways of capturing the benefits of free trade while avoiding the costs of free trade for the poor and the environment.

Differential Impacts

We might consider free trade in agricultural markets to see how free trade is likely to have mixed impacts on the poor. Economists estimate that the world could gain hundreds of billions of US dollars from liberalizing agriculture. One hundred forty-two of two hundred forty-eight billion dollars in fixed productivity gains will probably go to low income countries.⁵⁰ Agricultural tariffs have primarily negative impacts on the fortunes of developing countries. Nevertheless, some agricultural trade barriers can protect important developing country markets.⁵¹ Liberalizing trade in Southern Africa's staple commodities could be devastating for many countries in Southern Africa as many of these countries are net food importers.⁵² If food subsidies are reduced then prices for food may rise with free trade. Some poor countries may fare worse with free trade in agriculture.

Furthermore, even in those countries that gain from free trade, some poor people will probably be hurt. Between 2001 and 2003 Oxfam estimated that US dumping alone has caused poor cotton-producing countries in Africa losses of almost \$400 million.⁵³ Many but not all poor people in Africa would do much better if trade in cotton was free. Some textile workers, for instance, might do worse; they might gain from US dumping (which lowers cotton prices).

Finally, we know that free trade in agriculture will probably have mixed impacts on the poor in future generations. Economists predict that the dynamic gains from free trade in agriculture will be even larger than the static gains from opening markets.⁵⁴ Nevertheless, free trade in agriculture may hurt some of the future poor even if it benefits the future poor overall. The lives of many children and grandchildren of people, who would have been banana farmers in the Caribbean, but for recent free trade reforms, will probably be worse. The lives of many of the children and grandchildren of people, who would not have been banana farmers in Africa, but for free trade, will probably be better.⁵⁵

We might consider free trade in the energy sector to see how free trade is likely to have mixed impacts on the environment. Energy use is the main contributor to

climate change. Burning coal contributes about two fifths of the world's carbon emissions.⁵⁶ Many countries subsidize use of such traditional energy resources. The World Bank estimated that fossil fuel *consumption* subsidies alone amounted to more than \$200 billion dollars in 1992.⁵⁷ Such subsidies can reduce prices for traditional energy sources encouraging consumption and thus increasing pollution. So, reducing these subsidies may help reduce climate change and other environmental problems.⁵⁸ Still, some energy subsidies may benefit the environment. It would probably be unfortunate if subsidies for some renewable and sustainable energy sources decline.⁵⁹ Though, even here, the case is not so clear. It depends on which renewable energy source and what environmental problems we care about.⁶⁰

The details vary and are difficult to work out. We must keep in mind the fact that reforms that benefit the environment (or the poor) may harm the poor (or the environment). Subsidies of traditional energy resources, for instance, may be very important for the poor. This much should be clear, however: Some free trade reforms can reduce poverty. Some can mitigate environmental problems. Most reforms probably have mixed impacts. In light of obligations to reduce poverty and mitigate environmental problems there is (*ceteris paribus*) reason to support those reforms that both reduce poverty and environmental problems. There are likely many such reforms. And, when a reform that has some good effects (on the poor or the environment) also has some bad effects (on the poor or the environment) there is reason to see if there is a way to capture the good effects while avoiding the bad ones.

There will almost certainly be some times when there is reason to support a policy that requires tradeoffs between ameliorating poverty and mitigating environmental problems. Sometimes there may even be reason to support such a policy over one that benefits both the poor and the environment. A policy that requires tradeoffs may be much more cost-effective than one that does not or may help us fulfill other moral obligations we may have. Sometimes, it may even be better to spend the available funds on reducing poverty a lot at a slight cost to the environment rather than making minor improvements that help both the poor and the environment. We need a theory about how to deal with policies that require tradeoffs. Still, this should not stop us from trying to find constructive and creative alternatives to unfettered free trade that capture the benefits of free trade for both the poor and the environment while avoiding associated costs. We will consider some of these alternatives now.

5. RESTRUCTURING THE RULES OF TRADE

Believing that there is an obligation to reduce poverty and mitigate environmental problems does not give one a reason to support unfettered free trade or isolationism. Instead, there is reason to support those policies (protectionist or not) that reduce poverty and environmental problems.⁶¹ Whether or not a particu-

lar alternative should ultimately be implemented will depend on many things. It will depend, for instance, on what other options there are (among other things).⁶² The seemingly innocuous proposition that there is reason to consider embracing those policies (protectionist or not) that enable people to avoid poverty and help the environment directly contravenes current international law embodied in the WTO. Although the WTO does make some provisions for the poor embodied, for instance, in article XX of the GATT/WTO, these provisions are not as broad as those we are considering.⁶³ So, we must consider how it is possible to restructure the rules of trade embodied in the WTO or work around them to better reduce poverty and mitigate environmental problems. Because many of the reforms this section will suggest require altering the rules of global trade or circumventing them, the final section of this paper concludes by considering objections to using such trade policy to reduce poverty and mitigate environmental problems. This will help us isolate some of the conditions under which using trade policy to achieve these moral objectives may be acceptable. Holding everything else equal, if there are defensible ways to restructure the rules of trade so that they better help the poor and the environment, current WTO rules are unjustifiable.⁶⁴

In trying to capture the benefits of free trade while avoiding the costs, it is important to link free trade agreements both to provisions to reduce poverty and to provisions to mitigate environmental problems. Otherwise reforms that help the poor may harm the environment and visa versa. So, it might be good to change the rules of the WTO so that they *compensate* the poorest when they are hurt by free trade *and* create analogous means of mitigating environmental problems.

Consider first how the WTO might compensate the poor. Paragraph four of the Marrakech NFIDC Decision of the WTO says that agreements on agriculture have to make appropriate provision for the needs of net food-importing developing and least-developed countries.⁶⁵ The rationale is that net food importing countries are the ones most likely to be hurt by rising prices of agricultural commodities due to free trade. Though the Marrakech decision has yet to be appropriately implemented, a similar more sustainable program may be possible.⁶⁶

The WTO might also create programs to compensate poor *individuals* who lose from free trade or require countries to implement such programs. Such compensation should take a long term perspective on helping their beneficiaries avoid poverty by helping them adapt to changing economic conditions. One possibility is to create trade related adjustment assistance (TAA) programs. There are many examples of TAA programs. The US TAA program “provides trade-displaced workers with extended unemployment benefits, relocation expenses and (compulsory) training as a bridge to a new job with similar levels of income and benefits.”⁶⁷ It also compensates the workers for free trade’s harms. There are similar programs in place in other countries. The WTO might create a global TAA program to help the poor.⁶⁸

Next, consider how the WTO might use analogous means of mitigating envi-

ronmental problems. When a trade reform is likely to hurt the environment, the WTO might require compensatory measures to reduce this impact. If, for instance, a free trade agreement is expected to increase trade in wood products, thus hastening climate change, the WTO might require countries to plant new trees.⁶⁹

Again, it is important that the WTO attend to its policies' impacts on the poor and the environment together. A reform that compensates the poor may still harm the environment. A reform that compensates for damage to the environment may still harm the poor.

There are also many other ways of restructuring the rules of global trade so that they *proactively* reduce *both* poverty *and* environmental problems. Christian Barry and Sanjay Reddy argue that there is reason to link free trade agreements to agreements to improve labor standards and wages in developing countries.⁷⁰ If this scheme were extended, the rules of trade might also require linking free trade agreements to agreements to improve environmental regulations. Linkage could both help the poor and reduce environmental problems.

Similarly, the WTO might be altered so that it allows countries to use trade policy to unilaterally improve the position of the poor, while also helping the environment. Consider a simple example of how imposing a trade barrier may both help the poor and the environment. Suppose that *Destitute* is a very large country and raises a tariff against marsupials from any other country. This will reduce demand for foreign marsupials in *Destitute*. Producers in *Destitute* who sell their goods domestically will benefit since they will be able to sell marsupials at higher prices. Consumers in *Destitute* will lose out because they will have to pay these higher prices. Any producers in *Destitute* selling overseas will make less since more marsupials will be sold overseas at lower cost. Still, the money captured from the foreign marsupials that are sold in *Destitute*, plus the extra revenue the producers make in *Destitute*, may leave *Destitute* as a whole better off. Suppose the following conditions hold as well: The poorest in *Destitute* do not buy marsupials but produce them for domestic sale and the poorest in foreign countries do not produce marsupials but consume them. Since different countries have different preferences for food and different technologies, this may be quite realistic. On these conditions, the impact of this tariff could be good for all poor people in present generations. Suppose, further, that marsupial production produces a lot of green house gas. Since the tariff would decrease overall production of marsupials, it might even help poor people in future generations and benefit the environment. Although this is, of course, a hypothetical example, similar tariffs might bring great gains to the poor and the environment. Even rich countries might justifiably help the poor and the environment using trade policy unilaterally.⁷¹ If WTO rules allowed countries to use such trade barriers, trade policy could provide a useful tool for reducing poverty and environmental problems.⁷²

Those with a libertarian bent might object that this presupposes the possibility of fine-tuned social engineering. It is not clear that we have the knowledge

we need to decide whether allowing particular countries to implement particular tariffs will benefit the poor and the environment. Moreover, it would be expensive and difficult to analyze the prospects for different tariffs bringing such benefits. Perhaps constraints on the free market are unjustifiable for this reason. The WTO has enough to do without evaluating every possible tariff.

Although there is something to this objection it is not clear that it is correct. It might not be very expensive or difficult to figure out that some trade barriers will benefit both the poor and the environment. Nor need the WTO be responsible for doing so. Perhaps the WTO could allow countries to declare any trade barriers intended to benefit the poor and the environment as long as they are prepared to justify their barriers if challenged. Non-governmental organizations might, then, help developing countries that lack the capacity or resources to do the requisite econometric analysis find new ways to benefit the poor and the environment. Alternately, to minimize abuse, the WTO might just permit resource rich developing countries to implement trade barriers to benefit the poor and the environment, subject to random review.⁷³ Although the details would need to be worked out carefully, it is at least worth considering the possibility of allowing trade barriers that do benefit the poor and the environment.

Finally, even individuals can promote free trade that does not increase poverty or environmental problems.⁷⁴ They might, for instance, buy *Fair Trade* certified goods.⁷⁵ Goods sold as Fair Trade certified must meet certain standards.⁷⁶ At a minimum, they must be produced by people paid a living wage in an environmentally sustainable way.⁷⁷ Purchasing Fair Trade certified goods will probably not completely solve the problems free trade can cause for the poor or the environment, but it could do a lot of good if it leads to rising production standards.⁷⁸ The collective impact of individual choices can be large. Altering some trade policy may help the Fair Trade movement. The WTO might require countries to label goods produced in sustainable ways that help the poor as Fair Trade certified. But, even unaided consumer action is powerful. Boycotts of tuna not caught in dolphin safe nets changed the tuna-fishing industry when the WTO failed to do so. Purchasing Fair Trade certified goods may help those whose lives our consumption choices most directly impact while also mitigating environmental problems.

6. CONSIDERING OBJECTIONS

There are many ways the rules of trade might be altered or circumvented to reduce poverty and environmental problems. Some of these may not require changing the rules of trade embodied in international law in any way but many will. We can, thus, conclude by considering objections to altering the rules of trade in these ways.

Using Trade Policy to Reduce Poverty or Environmental Problems Is Inefficient

Trade barriers like tariffs, quotas, and export taxes are probably the most contentious trade policies. So let us, first, consider an objection to using trade barriers to reduce poverty and mitigate environmental problems. Proponents of unfettered free trade often argue that trade barriers are an inefficient way to help the poor and mitigate environmental problems.⁷⁹ They believe that such barriers are unjustifiable because there is usually a net loss in using such barriers to fulfill ethical objectives. So, one might conclude that there is reason to use taxation (or other kinds of market reforms) to help the poor and the environment instead.

There is something right about this argument. If world poverty and environmental problems provide reasons to consider using trade barriers, they also provide reasons to consider other market reforms. Global taxes to reduce poverty and environmental problems may be an option. Thomas Pogge, for instance, suggests taxing use of natural resources and using the proceeds to help the poor.⁸⁰ Such proposals deserve serious consideration. Nevertheless, this argument misses something important. In theory, trade barriers can be just as efficient as other market reforms. Consider, for instance, how some barriers compare to some taxes. Some trade barriers, namely tariffs, just are taxes. They are taxes on imports or exports.

The objector might qualify her point. She might suggest that quotas, in particular, are generally less efficient than tariffs and taxes. Furthermore, the objector might argue, taxes (including tariffs) result in less deadweight loss the broader their base (the more goods or people to which they apply).⁸¹ This is because taxes with a broader base usually cannot be avoided as easily as taxes with a narrower base and it is the costs associated with people trying to avoid taxes that make taxes more or less efficient. People could avoid a tax on rice, for instance, by purchasing flour instead. It is harder to avoid a tax on food, and harder yet to avoid a tax on all goods and services. Because tariffs usually do not have a very broad base, the objector might contend, they are unjustifiable.

It is not clear that even this refined objection goes through, however. Which taxes or market reforms are best depends on a variety of factors. Some argue, for instance, that which kind of reform is best depends on how easily employers can substitute one kind of labor (e.g., high skill) for another (e.g., low skill) in the production process.⁸² In theory, trade barriers can be just as good and efficient as taxation (or other kinds of market reforms) in ameliorating poverty.⁸³ Although we cannot get into the details here, there is a wealth of both theoretical and empirical literature in international and public economics on how different trade barriers and other market reforms affect efficiency.⁸⁴

Even if trade barriers are rarely a first-best solution to enabling people to avoid poverty and mitigating environmental problems, we do not live in a first-best world. There may be reasons of political economy to use such barriers rather than

taxes or other market reforms to fulfill ethical obligations. It may, for instance, be easier to get developed countries or corporate producers to reduce poverty or environmental problems through discriminatory quotas or tariffs than through taxes or other market reforms. Some of these reforms will also ameliorate environmental problems. There may even be some cases where the only realistic way to reduce environmental problems and poverty is to levy tariffs against countries destroying the environment and decimating their populations.⁸⁵ The threat of trade barriers may, for instance, be essential in getting rogue countries to agree to international environmental and development treaties. There may be few other ways to punish those who do not live up to their commitments not to harm the poor and the environment.⁸⁶ Consider how a tariff may help reduce environmental problems in a non-compliant country. Suppose *Non-Compliant* is the only country emitting a particular green house gas as a by-product of a particular production process. Suppose *Compliant* is the only country that purchases products made in this way. Compliant may be able to put a tariff on any goods made using that production process so that pollution will decline to optimal levels.

Using Trade Policy to Reduce Poverty or Environmental Problems Is Paternalistic

A second argument against using trade policy to reduce poverty and environmental problems goes roughly as follows: People in different countries have different preferences, resources, and needs. Because this is so, each country should get to decide on its own what it wants to do about poverty and environmental problems.⁸⁷ Preventing countries from fulfilling these preferences is paternalistic.⁸⁸ Those who are concerned about poverty and the environment should try to protect the poor and mitigate environmental problems within the borders of their own country. Using trade policy to get other countries to help the poor or the environment is unjust.⁸⁹ Such behavior should be illegal under the WTO, and countries should not use such trade policy.

This *Paternalism Argument* is strongest against the conclusion that there is reason to use trade policy to reduce poverty. Let us consider whether it succeeds in undercutting this conclusion first. We can then consider how the Paternalism Argument fares against the conclusion that there is reason to use trade policy to ameliorate environmental problems.

The first reason why the *Paternalism Argument* does not tell against using trade policy to reduce poverty is this: There are many reasons why a country with the ability to enable its citizens to avoid poverty may not do so. Few, if any, are legitimate. There are, for instance, many despotic countries that do not care for their citizens' welfare. And even democratic countries may, in effect, be ruled by wealthy individuals who do not care about the poor. If a trade policy can reduce poverty in these countries, there is *prima facie* reason to support the policy.⁹⁰

The second reason why the *Paternalism Argument* does not tell against us-

ing trade policy to reduce poverty is this: Some countries simply do not have the resources to enable all of their people to avoid poverty. We cannot say these countries do not enable their citizens to avoid poverty because the people in these countries prefer (in any morally significant sense) to use their money for other purposes. It does not follow from the fact that countries cannot afford to enable their citizens to avoid poverty that it is unacceptable to use trade policy to help the people in these countries. Specifying, as many economists do, that people *prefer* whatever they will pay for is not the same as arguing that we must give people only what they will pay for.⁹¹ To put this another way, saying that people do not want to avoid poverty because they do not have the money to do so is either false or, if made true by definition, irrelevant to the question of whether it is acceptable to help them avoid poverty.⁹²

Similar points hold with regard to the Paternalism Argument against using trade policy to reduce environmental problems. First, there are many reasons countries may not reduce environmental problems and few if any are legitimate. Countries may, for instance, have despotic leaders or misguided majorities unconcerned about the environment. Second, countries may want to reduce environmental problems but not be able to do so on their own. If so, the fact that countries do not try to reduce environmental problems on their own does not show that they have chosen not to do so. Saying that such countries “prefer” not to reduce environmental problems because they cannot do so, is either false, or if made true by definition, irrelevant to the question of whether or not we should help them do so. The Paternalism Argument fares no better against that conclusion than it fared against that conclusion that it is unacceptable to use trade policy to reduce poverty.⁹³

Using Trade Policy to Reduce Environmental Problems Undermines Sovereignty

Perhaps the proponent of the paternalism argument is really concerned about sovereignty. Perhaps interfering with sovereign nations by setting conditions on trade to reduce poverty or environmental problems is unacceptable, even if the rulers and the citizens of these countries do not see eye to eye. If this is right, there might be reason not to use trade policy to reduce poverty or environmental problems in countries that do not want such interference.

It is not clear, however, that this sort of interference is impermissible. The decisions of sovereign states may have some claim to respect. But, even if they do, it is not clear that using trade policy to help the poor violates other countries’ sovereignty. Perhaps the advocate of the paternalism argument could rely on the view that sovereign states are owed terms of trade set independently of moral considerations. But to require sovereign states to let the terms of trade be set independently of moral considerations may itself violate sovereignty! If sovereignty

is absolute, perhaps states should be able to impose whatever trade barriers they want (even those based on moral considerations).

Furthermore, there is another problem with the sovereignty argument. Let us grant for the moment that requiring sovereign states to let the terms of trade be set independently of moral considerations does not itself violate sovereignty. Let us also grant that using trade policy to reduce poverty or mitigate environmental problems infringes on sovereignty. Still, the proponent of the sovereignty argument must show that sovereignty has more moral weight than a concern for the poor and the environment.⁹⁴ In the absence of such argument, the sovereignty argument does not show that using trade policy to reduce poverty and mitigate environmental problems is unacceptable.

Using Trade Policy to Achieve Moral Goals Opens the Door to Harmful Protectionism

Finally, one might argue against using trade policy to reduce poverty and mitigate environmental problems as follows. People may disingenuously cite reducing poverty or environmental problems as the reason for protectionist measures. Producers or consumers seeking protection from competition may take advantage of well-intentioned concern about poverty and environmental problems to gain unfair economic benefits.⁹⁵ Ethanol producers might, for instance, use environmental problems as a reason for protectionism that will keep corn prices low even though the environmental benefits of ethanol are questionable.

This is probably the strongest argument against using trade policy to achieve ethical objectives. Nevertheless, some collusion between self-interested producers or consumers and those who genuinely care about world poverty and environmental problems, may not be bad. Suppose it is possible to build coalitions of those who care about the poor and the environment and those seeking protection (this is quite likely as the groups are not mutually exclusive). It might then be possible to adopt appropriate trade policy more quickly.

Still, it is clear that there may be a problem. Concern for the poor or the environment may function as a cover for protectionism that does not benefit (or even harms) the poor or the environment. US agricultural subsidies, for instance, make it difficult for poor countries to compete in the global market. And, since many crops are fertilized with petroleum based products in the US that emit nitrogen oxide the impact on the environment may be negative as well.⁹⁶ Those who care about the poor and the environment may even be fooled into supporting such protectionism.

Fortunately, there are a few ways to address this problem. One is through the dispute resolution panels of international trade agreements like the WTO. These panels may develop standards for judging whether a protectionist measure will actually reduce poverty or mitigate environmental problems.⁹⁷ If proposed measures to benefit the poor and the environment do not do so then, unless there

is another reason to implement such measures, they should not be allowed.⁹⁸ Educating those who care about the poor and the environment so that they will not be fooled into supporting inappropriate trade policies may also help prevent such exploitation.

Of course, allowing tariffs and other trade barriers is risky since they can be used to the detriment of the poor and the environment. But, the fact that protectionism can hurt the poor does not tell against using protectionism if it benefits the poor and the environment.

CONCLUSION

Hundreds of thousands of people protest against the WTO because they believe that the Race to the Bottom Argument shows free trade will decimate the environment, while equally passionate advocates of free trade cite the Argument from Comparative Advantage as evidence that free trade will ameliorate world poverty.⁹⁹ Neither argument alone can make or undercut the case for free trade. The potential benefits of free trade for ameliorating world poverty and environmental problems are large. But, there are also good reasons to be skeptical of the claim that free trade is always the best way to reduce poverty and mitigate environmental problems. Trade-related adjustment assistance programs, linkage, trade barriers, and consumer movements (like the Fair Trade movement) may be necessary and desirable. The WTO's proscription of many of these alternatives may be unjustifiable. At least, these alternatives merit consideration if they are the most efficient means of helping the poor and appropriate institutional safeguard are put in place to prevent abuse.

APPENDIX A

To see how it is possible for a country to gain from trade, even if that country does not have an absolute advantage in anything, it may help to consider a text book illustration of the Argument from Comparative Advantage using a simple two-country two-good model. Although there are many more complicated models (e.g., a mixed Ricardian/Heckscher-Ohlin model), the simplest model will suffice to illustrate the general idea. Similar critiques can be made of many of the more complicated models.

Suppose that there are only two goods (marsupials and xylophones) and two countries (let us call them *Wealthy* and *Destitute*). Suppose that *Wealthy* has an absolute advantage in producing both goods. It costs *Wealthy* less to produce xylophones than it costs *Destitute* to produce xylophones. It also costs *Wealthy* less to produce marsupials than it costs *Destitute* to produce marsupials. Suppose that the production costs in terms of labor for both goods in each country are as follows (where *L* is the total amount of labor available for production in each country and *x* and *m* indicate the quantity of xylophones and marsupials produced):¹⁰⁰

Wealthy	$x = 1$	$m = 2$	$L = 24$
Destitute	$x = 6$	$m = 3$	$L = 24$

Each country has twenty-four labor hours available for production. It costs *Wealthy* one labor hour to produce a xylophone and two labor hours to produce a marsupial. It costs *Destitute* six labor hours to produce a xylophone and three labor hours to produce a marsupial.

The opportunity cost of producing a xylophone is the number of marsupials that a country could produce instead of the xylophone. *Wealthy* has to give up half a marsupial to produce a xylophone. *Destitute* has to give up two marsupials to produce a xylophone. So *Wealthy* has a comparative advantage in producing xylophones. *Destitute*, however, has a comparative advantage in producing marsupials. *Destitute* only has to give up half a xylophone to produce a marsupial. *Wealthy* has to give up two xylophones to produce a marsupial. Depending on demand for these commodities, it may be possible for both countries to gain from trade. To maximize profit, each country needs to focus on producing only one commodity. Then each can exchange their surplus production for the other commodity. Because *Wealthy* has a comparative advantage in xylophones and *Destitute* has a comparative advantage in marsupials, *Wealthy* should concentrate production on xylophones and *Destitute* should concentrate on marsupials.

Consider how each country may fare with and without trade. Let us assume that this is the situation before trade:

Production without Specialization		
	Xylophones	Marsupials
Wealthy	16	4
Destitute	3	2
World Total	19	6

Wealthy spends sixteen hours producing xylophones and so produces sixteen xylophones. Destitute spends six hours producing marsupials and produces two marsupials. And so forth. If each country specializes in the commodity in which it has a comparative advantage, this situation will result:

Production with Specialization		
	Xylophones	Marsupials
Wealthy	24	0
Destitute	0	8
World Total	24	8

There are a total of five extra xylophones and two extra marsupials produced. It is clear that there is room to gain from trade (but since consumers demand some marsupials and some xylophones in both countries, the gains are only possible through trade). If the going price is five marsupials for every four xylophones, each country will do better in both commodities than they did before trade. This situation may result:

Production with Specialization		
	Xylophones	Marsupials
Wealthy	20	5
Destitute	4	3
World Total	24	8

In sum, the Argument from Comparative Advantage shows that poor countries can gain from trade even if they are not more efficient than rich countries at producing anything at all.

APPENDIX B

Recall that, in the example in Appendix A, five extra xylophones and two extra marsupials were produced by specialization than were produced without specialization. The going price was five marsupials in exchange for four xylophones. So, each country did better in both commodities than they did before trade. If, however, it cost six marsupials to get four xylophones this situation may result:

Production with Specialization		
	Xylophones	Marsupials
Wealthy	20	6
Destitute	4	2
World Total	24	8

In this situation, Wealthy ends up with twenty xylophones rather than sixteen and six marsupials rather than four. Destitute ends up with four rather than three xylophones but only two marsupials. Destitute does not do as well when the terms of trade are not in Destitute's favor. The Argument from Comparative Advantage does not tell us much about the size of the benefits to poor countries or individuals that will benefit from trade.

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NOTES

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1. See, for instance, World Bank, *Globalization, Growth, and Poverty* (Washington D.C.: The World Bank, 2001). This argument also appears in the popular literature on globalization. See, for instance, Douglas Irwin, *Free Trade Under Fire* (Princeton, N.J.: Princeton University Press, 2002).

2. See, for instance, Malgorzata Kurjanska and Mathias Risse, "Fairness in Trade II: Export Subsidies and the Fair Trade Movement," *Philosophy, Politics, and Economics*, vol. 7 (2008), pp. 29–56; Fernando Teson, "On Trade and Justice," *Theoria*, vol. 104 (2004), p. 192; Fernando Teson and Jonathan Klick, "Global Justice and Trade: A Puzzling Omission," FSU College of Law, Public Law Research Paper No. 285, 2007. Available at <http://ssrn.com/abstract=1022996>.

3. Teson, "On Trade and Justice." Teson and Klick, "Global Justice and Trade." This argument also appears in the popular literature on globalization. See, for instance, Douglas Irwin, *Free Trade Under Fire* (Princeton, N.J.: Princeton University Press, 2002).

4. Herman Daly, "Free Trade: The Perils of Deregulation," in *The Case Against the Global Economy and For a Turn Towards the Local*, ed. Edward Goldsmith and Jerry Mander (London: Earthscan, 2001).
5. Edward Goldsmith, "Can the Environment Survive the Global Economy?" in *The Case Against the Global Economy and For a Turn Towards the Local*, ed. Edward Goldsmith and Jerry Mander (London: Earthscan, 2001).
6. On obligations to the poor see, for instance, Nicole Hassoun, "World Poverty and Individual Freedom," *American Philosophical Quarterly*, vol. 45, no. 2 (2008), pp. 191–198. Also see Gillian Brock, "Egalitarianism, Ideals, and Cosmopolitan Justice," *The Philosophical Forum*, vol. 36, no. 1 (2005), pp. 1–30. On obligations to protect the environment, see, for instance, Dale Jamieson, "Adaptation, Mitigation, and Justice," in *Perspectives on Climate Change: Science, Economics, Politics, Ethics*, ed. Walter Sinnott-Armstrong and Richard Howarth (*Advances in the Economics of Environmental Resources*, vol. 5; New York: Elsevier, 2005), p. 217.
7. For a good argument to this effect, focusing, in particular, on linkage, see Christian Barry and Sanjay Reddy, *Just Linkage: International Trade and Labor Standards* (New York: Columbia University Press, 2007).
8. Stephen M. Gardiner, "The Global Warming Tragedy and the Dangerous Illusion of the Kyoto Protocol," *Ethics and International Affairs*, vol. 18, no. 1 (2004), pp. 23–41.
9. Clark Wolf, "Intergenerational Justice, Human Needs, and Climate Policy," in *Justice Between Generations*, ed. Axel Gosseries and Lucas Meyer (Oxford: Oxford University Press, forthcoming).
10. Jamieson, "Adaptation, Mitigation, and Justice."
11. Stephen M. Gardiner, "Ethics and Global Climate Change," *Ethics*, vol. 114 (2004), pp. 555–600.
12. Hillary Mayell, "Climate Studies Point to More Floods in This Century," *National Geographic News* (January 30th, 2002). Available online at http://news.nationalgeographic.com/news/2002/01/0130_020130_greatfloods.html.
13. At least this is required as long as the benefits outweigh the costs. This constraint is important given that, even now, ameliorating environmental problems like climate change will be difficult and expensive. Economists estimate that to postpone the doubling of carbon in the atmosphere for a few decades we would need to spend about 2 percent of GNP in perpetuity, or between 705 billion and 940 billion US dollars per year. If the sea levels rise, however, the cost of climate change could reach a few trillion dollars over the next fifty years. For references on these statistics, see Jamieson, "Adaptation, Mitigation, and Justice."
14. For treatment of these questions, see, for instance, Jamieson, "Adaptation, Mitigation, and Justice."
15. Peter Singer, *Practical Ethics* (Cambridge: Cambridge University Press, 1993).
16. Paul Taylor, *Respect for Nature* (Princeton, N.J.: Princeton University Press, 1986).

17. Arne Naess, *The Selected Works of Arne Naess*, ed. Harold Glasser, vols. 1–10 (New York: Springer, 2005). For yet another approach toward valuing the environment, see Nicole Hassoun and David Wong, “Conserving Nature; Preserving Identity,” in *Indigenous Knowledge and Cultural Property: The Ethics of Cultural and Environmental Sovereignty and Stewardship* (Tucson: University of Arizona Press, forthcoming).

18. For instance, see, Axel Gosseries, “Cosmopolitan Luck Egalitarianism and Climate Change,” *Canadian Journal of Philosophy*, suppl. vol. (2007). Also see Henry Shue, “Global Environment and International Inequality,” *Environmental Ethics: What Really Matters, What Really Works*, ed. David Schmidtz and Elizabeth Willott (Oxford: Oxford University Press, 2002).

19. World Health Organization, *WHO “Preparing for Treatment” Programme* (Geneva: World Health Organization, 2004). Available at <http://www.who.int/hiv/topics/arv/en/index.html>.

20. The Joint United Nations Program on HIV/AIDS, *World AIDS Day 2004: Women, Girls, HIV and AIDS; AIDS Epidemic Update* (Geneva: United Nations, 2004). Available at <http://www.unaids.org/wad2004/report.html>.

21. United Nations Children’s Fund, *Millennium Development Goals: Combat AIDS/HIV, Malaria, and other Diseases* (New York: United Nations Children’s Fund, 2005). Available at <http://www.unicef.org/mdg/disease.html>.

22. Thomas Pogge, “Severe Poverty as a Human Rights Violation,” in *Freedom from Poverty as a Human Right: Who Owes What to the Very Poor?* ed. Thomas Pogge (Oxford: Oxford University Press, 2006), p. 2.

23. *Ibid.*

24. Although there is a sense in which the poor might always be with us, the relevant kind of poverty here is absolute rather than relative. On different ways of measuring poverty, see Nicole Hassoun, “Poverty, Inequality, and Free Trade,” Carnegie Mellon Working Paper, 2008. Available at <http://www.hss.cmu.edu/philosophy/hassoun/papers.php>.

25. Let us also assume that there are some things we can afford to do.

26. One need not be a cosmopolitan to accept this much. For instance, see David Miller, *On Nationality* (Oxford: Clarendon Press, 1995). Also see J. Rawls, *A Theory of Justice* (Cambridge, Mass.: Belknap Press, 1971).

27. Similarly, I set aside questions about tradeoffs between meeting the needs of different poor people, although I address these questions elsewhere. See Nicole Hassoun, “Meeting Need,” *Utilitas* (forthcoming). Draft available at <http://www.hss.cmu.edu/philosophy/hassoun/papers.php>.

28. Gillian Brock, “Egalitarianism, Ideals, and Cosmopolitan Justice,” *The Philosophical Forum*, vol. 36, no. 1 (2005), pp. 1–30.

29. Darrell Moellendorf, “World Trade Organization and Egalitarian Justice,” *Metaphilosophy*, vol. 36, nos. 1–2 (2005), pp. 1026–1068.

30. Charles Beitz, *Political Theory and International Relations* (Princeton, N.J.: Princeton University Press, 1979). Also see Thomas Pogge, *Realizing Rawls* (Ithaca, N.Y.: Cornell University Press, 1989).

31. Jamieson, "Adaptation, Mitigation, and Justice."

32. See United Nations, *Disaster Reduction and the Human Cost of Disaster* (Geneva: United Nations Office for the Coordination of Humanitarian Affairs, 2004). Available at <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20169861~menuPK:34457~pagePK:34370~piPK:34424~theSitePK:4607,00.html>. Also see World Bank, *Natural Disasters: Counting the Cost* (Washington, D.C.: World Bank, 2006). Available at <http://www.irinnews.org/webspecials/DR/default.asp>.

33. Centers for Disease Control and Prevention, *The Impact of Malaria, a Leading Cause of Death* (Atlanta: Department of Human and Health Services, 2004). Available at <http://www.cdc.gov/malaria/impact/index.htm>.

34. The introduction to the Delhi Ministerial Declaration on Climate Change and Sustainable Development articulates this worry about Least Developed Countries and Small Island Developing States. See United Nations Framework Convention on Climate Change, *The Delhi Ministerial Declaration on Climate Change and Sustainable Development* (Eighth Conference of the Parties of the Framework Convention on Climate Change; Geneva: United Nations, 2002). Available at http://unfccc.int/cop8/latest/1_cpl6rev1.pdf#search=%22delhi%20declaration%20%20climate%22.

35. See United Nations, *Disaster Reduction and the Human Cost of Disaster* (Geneva: United Nations Office for the Coordination of Humanitarian Affairs, 2004). Available at <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20169861~menuPK:34457~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.

36. See World Bank, *Natural Disasters: Counting the Cost* (Washington, D.C.: World Bank, 2006). Available at <http://www.irinnews.org/webspecials/DR/default.asp>.

37. See David Schmidtz, "When Preservationism Doesn't Preserve"; and "Natural Enemies: An Anatomy of Environmental Conflict," both in Schmidtz and Willott, eds., *Environmental Ethics*.

38. Energy Information Administration, *What Are Greenhouse Gases?* (Washington, D.C.: Greenhouse Gases Programs, Energy Information Administration, Department of Energy, 2004). Available at <http://www.eia.doe.gov/oiaf/1605/ggcebro/chapter1.html>.

39. Teson, "On Trade and Justice." Teson and Klick, "Global Justice and Trade."

40. When the relevant assumptions are relaxed to account for things like the fact of unemployment, the best that can be proven is constrained Pareto optimality. Efficiency wage theories, for example, allow us to take into account the information problems that drive unemployment. They explain how markets can reach equilibrium with unemployment. Unfortunately, the equilibria that are guaranteed are not Pareto optimal.

41. There are many endogenous growth models that predict that openness will be correlated with growth that start with different assumptions from the model we have discussed. Some of these models point to the potential benefits of technology transfer, availability of inputs, technical assistance, and reduced networking costs from free trade. See Neil McCulloch, L. Alan Winters, and Xavier Cirera, *Trade Liberalization and Poverty: A Handbook* (London: Department for International Development, 2001).

42. Allen Buchanan, *Éthics, Efficiency, and the Market* (Lanham, Md.: Rowman & Littlefield Publishers, 1985).

43. Amartya Sen, *On Ethics and Economics* (Oxford: Basil Blackwell, 1987).

44. A similar argument can be made for investment—insofar as pollution abatement lowers profit, companies in pollution havens may be more likely to attract capital. See Rhys Jenkins, *Environmental Regulation and International Competitiveness: A Review of Literature and Some European Evidence* (Maastricht: The United Nations University Institute for New Technologies Discussion Paper Series, The United Nations University, 1998).

45. There are other explanations for why free trade might lead to falling rather than rising pollution levels too. There may, for instance, be economies of scale in pollution abatement or structural changes that occur in developing country economies with free trade reforms.

46. An entirely different response is that lower standards may not increase industry profit on average as regulation spurs investment into pollution abatement technology which can itself be profitable. For discussion and compelling theoretical and empirical evidence that this is not generally the case, see Jenkins, *Environmental Regulation and International Competitiveness*.

47. We can assume that this is the only change in each country's preference ordering in each case.

48. In total, economists estimate that subsidies worth between US \$500 billion to US \$1.5 trillion dollars a year in the forestry, agriculture, energy, fisheries, and transportation sectors are both inefficient and hurt the environment. See United Nations Environment Programme / International Institute for Sustainable Development, *Environment and Trade: A Handbook* (Geneva: United Nations, 2000), p. 45. Available at http://www.iisd.org/pdf/envirotrade_handbook.pdf.

49. Paul Cashin, Paolo Mauro, Catherine Pattillo, and Ratna Sahay, "Macroeconomic Policies and Poverty Reduction: Stylized Facts and an Overview of Research," International Monetary Fund Working Paper 135 (Washington, D.C.: International Monetary Fund, 2001).

50. Merlinda Ingco and John D. Nash, "What's at Stake? Developing-Country Interests in the Doha Development Round," in *Agriculture and the WTO: Creating a Trading System for Development* (Oxford: Oxford University Press, 2004).

51. Ibid.

52. Jeffrey Sachs, *The End of Poverty: Economic Possibilities of Our Time* (New York: Penguin Press, 2005).

53. Oxfam, "US Cotton Subsidies Declared Illegal by WTO, Again: Oxfam Says the US Must Comply Now to Make Trade Fair for Farmers in Poor Countries" (Boston: Oxfam, 2005). Available at http://www.oxfamamerica.org/newsandpublications/press_releases/wto_cotton_ruling.

54. Ingco and Nash, "What's at Stake?"

55. Free trade also changes the composition of future generations. This paper does not consider these impacts. If the fact that a policy will change the composition of future generations is morally important, however, these impacts must also be taken into account.

56. Kym Anderson and Warwick J. McKibbin, "Reducing Coal Subsidies and Trade Barriers: Their Contributions to Greenhouse Gas Abatement," *Brookings Discussion Papers in International Economics*. No. 135 (1997), pp. 1–32.

57. Organisation for Economic Cooperation and Development, "Reforming Coal and Electricity Subsidies," Annex I Expert Group on the United Nations Framework Convention on Climate Change, Working Paper No. 2 (Paris: Organisation for Economic Cooperation and Development, 1997). Available at <http://www.oecd.org/env/docs/cc/gd9770.pdf>.

58. If reducing subsidies leads to lower prices and more consumption of coal energy, however, climate change could even increase as a result (*ibid.*). The details of this particular example are simply meant to illustrate the general point; other examples can be given if this case proves to be a poor one.

59. Organisation for Economic Cooperation and Development, "Reforming Coal and Electricity Subsidies."

60. Luc Bovens provided a nice example of how different choices might cause different environmental problems in commenting on this paper at the American Philosophical Association. He said that in some countries reducing subsidies for biofuel will benefit boars but hurt tigers because tigers can more easily catch boars when the forest is cleared for growing biofuels—talk about winners and losers!

61. Once again, such reasons are probably defeasible. Other considerations may yield conflicting recommendations.

62. It may also depend, for instance, on whether or not the costs of helping the poor and the environment are fairly distributed.

63. The WTO explicitly prohibits many trade barriers that might help the poor or the environment. For more information, see World Trade Organization, *The General Agreement on Tariffs and Trade (GATT 1947)* (Legal texts: GATT 1947 Article XVIII—XXXVIII. Geneva: World Trade Organization, 2006. Available at http://www.wto.org/english/docs_e/legal_e/gatt47_02_e.htm).

64. Other institutions may have much larger roles to play in addressing poverty and environmental problems and some may have to work with the WTO to ameliorate these problems. The International Labor Organization might, for instance, help administer a linkage program.

65. World Trade Organization, *Committee Settles Three Implementation Issues* (Geneva: World Trade Organization, 2001. Available at http://www.wto.int/english/tratop_e/agric_e/implementation2001_e.htm).

66. The provisions suggested by the committee set up to consider the matter included increased levels of food aid, financing facilities, and financial and technical assistance for increasing agricultural productivity for net food-importing developing countries and least-developed countries. For more information see: *Ibid.* Also see World Trade Organization, *Committee on Agriculture: Report to the General Council by the Vice-Chairman* (Geneva: World Trade Organization, Committee on Agriculture, 2001. Available at http://www.wto.int/english/tratop_e/agric_e/implementation2001_e.pdf).

67. Neil McCulloch, L. Alan Winters, and Xavier Cirera, *Trade Liberalization and Poverty: A Handbook* (London: Department for International Development, 2001), p. 152.

68. We might also create other programs along the same lines. If, for instance, free trade contributes to climate change, the WTO might assist poor people in adapting to changing conditions. Another alternative is to come up with feasible ways of redistributing property rights that underlie free trade to ensure that all people can meet their needs. Thomas Pogge argues, for instance, for an alternative to the trade related intellectual property rights provisions of the WTO that might be better for the poor. See: Thomas Pogge, "Human Rights and Global Health: A Research Program," *Metaphilosophy*, vol. 36, nos. 1–2 (2005), pp. 182–209.

69. We can use environmental impact assessments for trade reforms to determine both what the likely impact of a reform will be and which compensatory policies are likely to be successful. Some trade agreements investigate the environmental impacts of their policies upon request.

70. See Christian Barry and Sanjay Reddy, *Just Linkage: International Trade and Labor Standards* (August 25 draft) (New York: Columbia University Press, 2007).

71. This suggestion goes beyond Stiglitz's suggestion to let only developing countries retain more discretion over their use of trade barriers.

72. The WTO might also allow barriers which bring net benefits to the poor and/or the environment with appropriate compensation.

73. This is along the lines of Andrew Charlton and Joseph Stiglitz's proposal in *Fair Trade for All*. See Andrew Charlton and Joseph Stiglitz, *Fair Trade for All* (Oxford: Oxford University Press, 2005).

74. On fair trade, see Mathias Risse, "Fairness in Trade," Harvard University Working Paper, 2006. Available at <http://ksghome.harvard.edu/~mrisse/docs/cv0306.pdf>.

75. There are many "Fair Trade" certification schemes. Some are better than others. See Fairtrade Foundation, "What is Fairtrade?" (London: The Fairtrade Foundation, 2008). Available at http://www.fairtrade.org.uk/about_standards.htm. Also see Transfair USA, "Fair Trade Products" Oakland: Transfair USA, 2007). Available at <http://transfairusa.org/content/shop/products.php>.

76. Often, Fair Trade organizations that certify goods as "Fair Trade" provide producers with credit services and access to training.

77. Fair Trade coffee, for instance, is usually shade-grown. Coffee produced in this way is grown under the rainforest's canopy rather than in clearings usually created by burning down rainforests.

78. Even here, however, we must take into account all the consequences of our actions. If people buy Fair Trade, prices for non-Fair-Trade goods may fall—potentially leaving some people worse off. I discuss this worry and the conditions under which purchasing Fair Trade certified goods may be morally acceptable in "Making Free Trade Fair," Carnegie Mellon University Working Paper, 2008. Available at <http://www.hss.cmu.edu/philosophy/hassoun/papers.php>.

79. Cees van Beers, "International Trade, Environment, and Sustainable Development," in *Economics of Sustainable Development: International Perspectives*, ed. Mario Cogoy and Karl Steininger (Cheltenham: Edward Elgar, 2006).

80. Pogge, "Severe Poverty as a Human Rights Violation."

81. Emmanuel Saez, "Direct or Indirect Tax Instruments for Redistribution: Short-Run versus Long-Run," *Journal of Public Economics*, vol. 88 (2004), pp. 503–518. Also see James Anderson, "The Relative Inefficiency of Quotas," *The Journal of Economic Education*, vol. 19, no. 1 (1988), pp. 65–81.

82. Saez, "Direct or Indirect Tax Instruments for Redistribution."

83. *Ibid.*

84. Richard Lipsey and Kelvin Lancaster, "The General Theory of Second Best," *The Review of Economic Studies*, vol. 24, no. 1 (1956), pp. 11–32.

85. Again we need to take into account the needs of all people and the impact of our policies on the environment at the same time.

86. On this, see Daniel Esty, "Bridging the Trade-Environment Divide," *The Journal of Economic Perspectives*, vol. 15, no. 3 (2001), pp. 113–130.

87. In defense of this argument see van Beers, "International Trade, Environment, and Sustainable Development."

88. This argument also appears here: European Union (EU), "Economic Partnership Agreements and Free Trade: Myths and Reality," *EU-Uganda News: A Quarterly News Letter of the Delegation of the European Commission in Uganda* (December 2004).

89. It is not clear that the Paternalism Argument tells against countries using trade policy to reduce poverty or mitigate environmental problems within their own borders. If Destitute can prevent its own citizens from selling necessary goods abroad it may lower prices for these goods domestically. This may help poor people in Destitute avoid poverty.

90. For further discussion, see Thomas Pogge, *World Poverty and Human Rights: Cosmopolitan Responsibilities and Reforms* (Cambridge: Polity Press, 2002).

91. Of course, there may be a desert argument to show that people should get all and only what they can pay for which would entail that there is no obligation to enable everyone to avoid poverty even if we can afford to do so. This principle is not compelling. Even a libertarian can accept a moral obligation to help people when the costs are low. Certainly the claim that there exists an obligation to reduce poverty needs defense. At least one who believes such an obligation exists should not find the desert argument compelling.

92. After all, most poor people do not choose to be poor; many are children. For further discussion see Pogge, "Severe Poverty as a Human Rights Violation."

93. Finally, even if using trade policy to protect the poor or the environment sometimes requires paternalism, further argument is necessary to show that such policy is always unacceptable. Paternalism may be justifiable if it is necessary to protect the poor or the environment.

94. If there is a human right against severe poverty and environmental degradation which constrains sovereignty, the prospects for such an argument are dim. See James Nickel, *Making Sense of Human Rights*, 2nd ed. (Oxford: Blackwell Press, 2006).

95. Many argue that this is already happening. See, for instance, Brink Lindsey, Mark Groombridge, and Prakash Loungani, "Nailing the Homeowner: The Economic Impact

of Trade Protection of the Softwood Lumber Industry,” *CATO Trade Policy Analysis*, no. 11 (2006), pp. 1–16.

96. Natural Resource Conservation Service, “Agriculture and Climate Change,” *RCS Issue Brief*, no. 3 (1995). Available at <http://www.nrcs.usda.gov/Technical/land/pubs/fib3text.html>.

97. There is some sign that this may be happening for environmentally motivated trade policy though it is not clear that the WTO would ever consider co-option by industry to be acceptable. Fruitful policy-relevant research could be done by philosophers on the conditions under which co-option by industry is acceptable. I start to consider this issue in “Making Free Trade Fair.”

Also see Steve Charnovitz, “World Trade and the Environment: A Review of the New WTO Report,” *Georgetown International Environmental Law Review*, vol. 12, no. 1 (2002), pp. 523–541. Finally, see Håkan Nordström and Scott Vaughan, “Trade and Environment,” in *World Trade Organization Special Studies*, vol. 4 (Geneva: World Trade Organization, 1999).

98. Perhaps such panels could also decide whether a trade policy that does help the poor and the environment can be justified in light of competing considerations.

99. See, for instance, Alternative Media Project, *Anti-FTAA Protests* (Shawnee Mission, Kans.: Alternative Media Project, 2001), available at <http://www.infoshop.org/octo/ftaa.html>. Freedom Socialist Party, *Abolish the WTO* (Los Angeles: Freedom Socialist Party, 1999), available at <http://www.socialism.com/currents/wto-seattle.htm>.

100. Let us assume here that we are in a pure exchange economy where labor is the only input relevant for producing marsupials and xylophones.