

## Climate Ethics with Manuel Wörsdörfer

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**Christiane Wisehart, host and producer:** I'm Christiane Wisehart, and this is Examining Ethics, brought to you by The Janet Prindle Institute for Ethics at DePauw University.

**[music: Blue Dot Sessions, Single Still]**

**Christiane:** Philosopher Manuel Wörsdörfer joins us to review some of the most pressing climate issues we face today.

**Manuel Wörsdörfer:** I care deeply about ethical issues, and I deeply care about indigenous people's lives. So I find it very fascinating how climate change impacts, especially the most marginalized, the most disadvantaged, the most vulnerable people on earth.

**Christiane:** We'll explore intergenerational justice, responsibility for climate change and much more on today's episode of Examining Ethics.

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**[interview begins]**

**Christiane:** So welcome to the show. We're discussing your article, Climate Ethics and Climate Politics. So just briefly introduce us to the issue that you're writing about here.

**Manuel Wörsdörfer:** So the article is about two big topics. The first one is climate ethics. So the main question here is should we consider climate change as an ethical issue? And if so, how? And the second part of the article is about the biggest challenges of climate politics. So I talk a bit about the role of lobbying, rent-seeking—what are the biggest challenges when it comes to climate action right now from a political point of view.

**Christiane:** And briefly, why is this an issue of ethics and not say an issue of just environmental science or economics?

**Manuel Wörsdörfer:** Climate change is a big environmental issue. It is also a socioeconomic issue. So climate change comes with lots of economic costs, but it is also a key ethical issue. And the main reason is that it directly relates to and raises equity, fairness, and societal or social justice considerations, including issues such as intergenerational justice, distributive justice, or environmental justice. And climate change also directly relates to several ethical principles, including the “do no harm” principle, the “polluter pays” principle or the “ability to pay” principle. And last but not least, climate change also directly impacts human rights. It impacts the rights of indigenous peoples. And yeah, that's why climate change is a very important ethical issue.

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**Christiane:** So one of the issues of fairness that you bring up is that ... and you write about this in detail, but sort of the general idea is that climate change is going to disproportionately affect certain regions more than others. So, for example in America, it's going to shift values and wealth from poorer regions in the South or in the Central West. It's going to shift wealth from those regions to regions that are already rich, like New England or the Pacific Northwest. So first of all, help us understand how that's going to happen and then what would you say to people who argue, okay, well if you live in the Florida Keys, why don't you just move?

**Manuel Wörsdörfer:** You're absolutely right, climate change disproportionately affects poor areas and it is expected that it will contribute to growing socioeconomic inequalities here in the US but also elsewhere. Poor regions are expected to get poorer, whereas rich regions are expected to get richer and there might be even some regions here in the US that might benefit from climate change. It is expected that the United States will lose between 1 and 2% of GDP for each degree Celsius increase in global temperature, but the poorest regions of the US will suffer more. So to give you some examples, the Gulf Coast economy is expected to be damaged by the increasing frequency and intensity of hurricanes and rising sea levels. Higher temperatures in the south, for example in Texas, will increase air conditioning costs and decrease labor productivity. The Midwest or the central parts of the US will experience agriculture losses due to more frequent and intense weather events.

But then there are also other parts of the US for example, in the North, in the Western US that could benefit from rising temperatures due to longer growing seasons, reduced energy costs and so on. So in short, climate change is expected to cause a net transfer of values and wealth from the south, central and mid-Atlantic regions, which are poorer on average to the Pacific Northwest, Great Lakes regions and also to New England, which are richer on average. Now with regard to climate migration, this is absolutely true, especially when we see it from a global perspective. It is expected that we will see more and more people being forced to leave their homelands due to rising sea levels, extreme weather events and also droughts, heat waves and so on. And this is expected that we might see between 100 and 200 million people being forced to leave their homelands until 2050. And this obviously comes with huge socioeconomic, but also with political implications as refugees and also asylum seekers are oftentimes a politically very controversial topic.

**Christiane Wischhart:** When we discuss the ethics of climate change, as you mentioned before, justice is often invoked, and as you pointed out, there's many different kinds of justice and we'll get into some of those details later. But just generally, how can we sort out responsibility for these problems? And then how's it possible, or is it possible to make sure that justice is served when it comes to climate change?

**Manuel Wörsdörfer:** Yes, that's an excellent question. So there is indeed a significant relationship between climate change on the one hand, and justice considerations on the other hand, various forms of justice are directly impacted. So we have, for instance, intergenerational

justice: the main issue here is that the current climate crisis is caused by previous and current generations, but the main burden in terms of climate change mitigation and adaptation costs will fall on future generations. And the less current generations do in terms of climate change mitigation, the more burden, the more damage, the more harm will be pushed off onto future generations. So inaction increases future mitigation costs, and the worst case scenario would be that future generations will inherit an entirely unlivable planet. So the question here is really do current, living generations have duties, do they have responsibilities and also obligations towards future generations?

We also have intergenerational issues. So this relates to justice considerations among living generations, especially between industrialized countries on the one hand and developing countries on the other hand. And the biggest issue here is really that we have this huge disparity or gap between cause and effect. So when we take a closer look at the empirical data, it is obvious that climate change is mostly cost. It's mostly driven by the rich countries in North America, but also in Europe and also in China. But the countries that will suffer the most are located in Africa, in Latin America, in Southeast Asia, and those are the countries that have contributed the least to climate change. So when we take a closer look at the cumulative CO2 emissions over the past few hundred years, we see that the US has emitted the most, followed by the European Union member states and China, but those are not the countries that will suffer the most. The suffering is expected to occur mostly in already poor regions. And those are the ones that have not caused the current climate crisis.

And in addition to that, those countries, for example, countries in tropical regions, et cetera, they have fewer resources available to protect themselves against extreme weather events, rising sea levels, the outbreak of epidemics and food and water insecurities. So again, most climate change-inflicted human suffering is expected to occur in already poor regions. It affects mostly disproportionately, already disadvantaged, marginalized, and vulnerable populations. So the question here is whether rich countries, whether industrialized countries, whether wealthy countries such as the US, but also the European Union member states have responsibilities to better support the poor countries, especially developing countries and least-developed nations.

**Christiane Wisehart:** So one of the ways that we can figure out who's responsible is something you call "event attribution science," which I thought was really interesting. I'd never come across that phrase before. And this is basically the science of figuring out who is polluting or who is contributing to climate change. So I just wondered if you could tell us a little bit more about the ethics nested in that and then also who is undertaking this research, who is doing this kind of science?

**Manuel Wörsdörfer:** So yeah, this is a really fascinating type of climate science research. It tries to attribute or link extreme weather events to anthropogenic- or human-caused climate change. It basically tries to analyze the human impact on extreme weather events. And the key questions here are, did the presence of climate change resulting from human greenhouse gas emissions make a specific weather event more or less likely or more or less intense? And if so,

by how much? So what event attribution scientists do, they basically compare the world with climate change, the real world with the world without human influence, that is without any form of anthropogenic climate change. And they make use of a variety of methodologies. They use computer simulations, climate models, but also meteorological data, satellite data and historical data. And they assess the probabilities of extreme weather events due to climate change. Several studies have found that human made or human induced climate change increases the risk of extreme weather events, the frequency and also the intensity of those events around the world. They have made death more likely, but also economic damage more likely. And with each degree Celsius more of global warming, extreme weather events such as hurricanes, such as droughts, such as wildfires, heat waves, et cetera, will become more and more likely.

**Christiane Wisehart:** So we've already talked about distributive justice on the show before, and I'll leave a link to the show where we talk about that, and that's one of the types of justice that you cover. Another type of justice that you cover is intergenerational justice. And again, you talk about this really evocative phrase called the "tyranny of the contemporary." So what does that mean and how does that relate to intergenerational justice?

**Manuel Wörsdörfer:** So intergenerational justice basically asks the question whether current or living generations have duties or responsibilities towards future generations, especially when it comes to climate change mitigation costs. It's basically about justice consideration between current and future generations, but it's also about the fair distribution of resources between living and future generations and about the responsibilities of present generations, especially regarding climate change mitigation and adaptation.

Now, the phrase that you are referring to, I believe goes back to the work of Gardiner who is a philosopher. And he basically claims that current or short term economic interests dominate the current discourse on climate action or climate change mitigation and adaptation. So we are basically not considering the interests of future generations. And philosophers such as Gardiner, they would basically argue that present generations have a certain responsibility also towards future generations. The same way of arguing is also put forward by Moellendorf, who's another great climate philosopher. He comes up with this idea of a morally constrained CO<sub>2</sub> emissions budget, and he basically argues that this emissions budget should be equally shared or distributed between present and future generations. So he argues that current generations must ensure to leave enough of that budget, enough of the natural resources that are currently available for future generations, and they should not use more than their fair share of this budget. So the main argument here is really that we need to make sure that natural resources are equally shared between current generations and future generations.

In terms of distributive justice, philosophers such as Gardiner, but also Moellendorf and others, they also argue that climate change mitigation should go hand in hand with the so-called "anti-poverty principle," which means that climate change action should go hand in hand with the fight against poverty, especially in the least developed nations. So we should also have a

fair distribution of natural resources, not only between present generations and future generations, but also between industrialized countries and developing countries.

**Christiane Wisehart:** Is the reason that we would have to tie concerns about poverty to distribution justice because issues of the environment are going to be sort of inextricable from economic issues?

**Manuel Wörsdörfer:** Yes. I mean, climate change comes with a couple of different economic cost factors. We have, for example, significant health costs. For example, air pollution caused by the burning of fossil fuels will become more and more of an issue, especially in developing countries, for example, in Southeast Asia or in Africa. Another very important economic cost factor is, for example, how climate change negatively impacts agriculture, which is one of the most climate-sensitive industry sectors. So climate change might also negatively impact food production, it might lead to more and more food insecurity, it might lead to more hunger and also to more and more poverty. And climate change also negatively impacts other economic sectors as well.

And again, many of the developing countries, the least-developed countries on earth, are those that heavily depend on agriculture. As I mentioned before, agriculture is one of the most climate-sensitive sectors or one of the most climate-sensitive industry sectors. And that's why countries, for example, such as Bangladesh, will be so negatively impacted. Bangladesh, for example, is one of the most climate-vulnerable countries on earth, and it is expected that because of the increase in the frequency and intensity of extreme weather events, but also rising sea level that this negatively impacts, for example their rice production. So it negatively impacts the bread baskets of many developing countries, which might lead to more poverty and also to more hunger.

**Christiane Wisehart:** So I want to shift gears here a little bit and talk about the way that we think and talk about climate change or climate politics. So, what are some of the cognitive biases that happened to us or that we might have to be careful about when we're thinking about climate politics?

**Manuel Wörsdörfer:** Cognitive biases play a significant role. I would just like to mention two very important ones. The first one is called status quo bias or the so-called default effect. And this relates to the tendency of people to choose or favor the present option. For example, a fossil fuel-based lifestyle and climate inaction or an uncertain alternative, future alternatives, et cetera. And it basically refers to this preference for things as they are, however bad they might be. And the second very important cognitive bias that plays a role when it comes to individual inaction, but also political inertia is called NIMBYism, so "not in my backyard." And it indicates an opposing attitude of nearby residents to a proposed development project in the local area. Although the exact same people would tolerate or support the identical type of project if it would be built further away. So to give you an example in the context of climate change, that would be wind turbines, which are often opposed by nearby residents.

So these are some of the two biggest cognitive biases, NIMBYism, but also status quo bias, which oftentimes lead to climate inaction or lack of support of climate action.

**Christiane Wisehart:** So if a listener is on board with fighting climate change, is there a way to train ourselves away from these cognitive biases or a way to change our thinking for the positive so that we can take action?

**Manuel Wörsdörfer:** I believe one of the biggest issues is to challenge or to address what is referred to as an anthropocentric worldview. So anthropocentrism basically believes that humans are at the center of the universe, that only humans possess intrinsic value or inherent worth. Whereas for example, all animals, but also natural ecosystems possess only instrumental value, which means that they can be exploited by humans, they can be abused in order to satisfy human needs. So shifting away from a human-centered perspective towards a more nature-centered point of view towards a more non-anthropocentric worldview would definitely help. So this basically means that we should not look at animals or at ecosystems as something that we can exploit, that we should consider as a means to an end, but something that also has an end in itself and is valuable in and of itself, independent of the usefulness to humans. So this shift from an human-centered point of view towards a nature-centered point of view might definitely help when it comes to reducing environmental destruction. And also when it comes to fighting climate change.

**Christiane Wisehart:** I think people my age and maybe a little bit younger, there's a tendency towards nihilism when it comes to thinking about climate change or maybe hopelessness might be a better way of putting that. Because I can do all sorts of things individually to reduce my carbon footprint or to try to fight for a better world, but whatever I'm doing is just a drop in the bucket when you compare that to all of the damage that big corporations and even governments are doing. So what would you say to those of us who are feeling maybe a little bit hopeless when it comes to climate change?

**Manuel Wörsdörfer:** Yeah, I absolutely understand this. This is one of the biggest ethical issues as well that we have here this so-called fragmentation of agency, meaning that climate change is not caused by a single agent, it cannot also be fixed by a single agent. You're absolutely right. Coming back to event attribution science, when we take a closer look at the latest empirical research there, it shows that the biggest 90 fossil fuel producing companies in the world are responsible for more than 60% of all CO<sub>2</sub> emissions. And the top 20% are responsible for 35% of all CO<sub>2</sub> emissions. The same is true for the big countries, for the big economies. China right now is the biggest emitter of CO<sub>2</sub>. They emit roughly 10 billion tons of CO<sub>2</sub>, or roughly 31% of all CO<sub>2</sub> emissions every year, followed by the US with 5 billion tons of CO<sub>2</sub> and roughly 14% of all CO<sub>2</sub> emissions. So China, the European Union member states and the US are the largest emitters of CO<sub>2</sub>, and we have a few very big fossil fuel corporations that are largely responsible for those greenhouse gas and CO<sub>2</sub> emissions.

I think it is important to really shift our conversation when it comes to nihilism, but also when it comes to climate inaction. And I think what we really need is to change the narratives. So right now, the focus, when we talk about climate change mitigation and adaptation, the focus is oftentimes about the risks, it's about the costs. In order to gain support from ordinary citizens, also from civil society in general, it is important to shift from these negative narratives towards more positive narratives. So for instance, to talk a bit more about people's health, if we fight climate change, this would also lead to significant health benefits. We would reduce air pollution, we would be able to fight many diseases, vector-borne diseases, waterborne diseases, et cetera, et cetera. So we would have lots of health benefits. So talking more about people's health, which is directly linked to the health of the planet, or to talk more about clean energy or clean air, or to talk a bit more about the positive aspects of the transformation from a fossil fuel-based economy towards a zero carbon economy.

This transition comes with lots of employment opportunities, lots of business opportunities or investment opportunities. So there is indeed this business case for climate action, for climate change mitigation and so on. It might lead to more jobs being created in certain industries, and it might also enhance the competitiveness and the innovativeness of the US and other economies. So climate change, this transition from a fossil fuel based economy towards a zero carbon economy comes with lots of benefits and changing narratives and talking a bit less about the cost and the risks and more about the positive impacts might also help to convince people to do more in terms of climate action.

And the last point that I would like to mention is so the goal of the Paris Climate Accord is to limit climate change or global warming to two degrees Celsius, ideally to 1.5 degrees Celsius relative to pre-industrial levels. Right now we have already passed 1.1, 1.2 degrees Celsius, but there is a huge difference whether we end up at a world that is 1.5 degrees, two degrees Celsius warmer, or whether it's three, four, or five degrees Celsius warmer. So it makes a huge difference.

But again, we need a fundamental change in terms of climate science communication. Shifting from negative narratives towards more positive narratives would definitely help to bring more people on board.

**Christiane Wisehart:** I think it's becoming increasingly hard to avoid misinformation and disinformation when it comes to climate science. So I was a little bit ashamed because earlier I mentioned something about reducing my carbon footprint, and then I remembered immediately after I said that, that that's something that the oil company BP came up with as part of a marketing campaign. And so there are all kinds of tricky things like that that have been happening. And so do you have any tips for folks who want to avoid misinformation or what are some solid sources that we can rely on when it comes to climate science?

**Manuel Wörsdörfer:** Obviously these disinformation campaigns coming from these interest group-based attacks, or from these so-called "merchants of doubt" are definitely a huge

problem. So you're absolutely right, there are a couple of institutions, organizations, for example, the Heartland Institute, the American Enterprise Institute, the Cato Institute, these are pseudo-scientific advocates, they indeed try to undermine, distort and fabricate facts and theories. They try to sort out and confuse the public, and most importantly, they try to erode the trust of society in science. So what you have seen over the past few years, not only when it comes to climate science, but also when it comes to COVID and other issues, the main problem here is really this mistrust in science. And these disinformation campaigns are pretty similar to what the tobacco industry did a few years and decades ago to cast doubt about the connection between smoking and cancer.

Now, when it comes to reliable sources, I would recommend checking out the podcast and also the YouTubes of one of my colleagues, Katharine Hayhoe. She's a really great climate science communicator, and she tries to also use language that is easily understandable to lay persons. So I think one of the biggest issues when it comes to climate science communication is also to communicate in a way that is easily understandable for lay people. As I mentioned before, it is also important to bring people on board, for instance, to show them how climate change impacts them on a personal level, but also to point out the positive aspects of climate change. As I mentioned before, climate change has the potential to lead to lots of investment opportunities, employment opportunities, but it can also enhance the competitiveness and also the efficiency and innovativeness of the US and other economies.

**Christiane Wisehart:** Why do you care about this? What brought you to this work?

**Manuel Wörsdörfer:** I study philosophy and I care deeply about human rights. I care deeply about ethical issues, and I deeply care about indigenous people's lives. So I find it very fascinating how climate change impacts, especially the most marginalized, the most disadvantaged, the most vulnerable people on earth. When it comes to climate change, as I mentioned before, there are obviously a lot of people that will be negatively impacted, especially indigenous peoples. And what is really interesting is that even here in the US we already have some climate refugees, for example, in Alaska, indigenous peoples that are forced to leave their ancestral lands, leave their homelands because of the thawing of permafrost. And again, it's these injustices or this disparity between cause and effect.

Those countries, those corporations that have caused the current problem climate change, are not the ones that are suffering the most. Those that are suffering the most are indigenous peoples, people living in developing countries, et cetera. And they have not contributed anything to the current problem.

I also deeply care about politics and how we can make things better. So it's really about how climate science and also other forms of science can have a positive impact on people. How can we make the life of people better? I try to really propose solutions, how we can really fight this problem. We need consumers. Consumers can make a huge difference when it comes to climate change. They basically vote with their money. We also need to talk about the role of



cities, municipalities. We need to talk about the role of corporations, especially finance. So I also do a lot of research when it comes to climate finance, when it comes to green bonds, and when it comes to the role and responsibility of banks and other financial institutions. Because they basically provide a lot of funding, a lot of financial means to fossil fuel companies. So they could also make a difference by divesting from those companies. But we also need to talk about the federal government. We need to talk about international organizations. So all of these things need to come together, the micro level, the meso level, and also the macro level.

And we also need to have a mixture of top down reform measures. For example, carbon taxes, emissions trading schemes, et cetera. But we also need to have bottom up reform measures or approaches, for example, grassroots movements and Fridays for Future is a great example where especially the younger generation took action to raise awareness to sensitize people and politicians for those issues. So again, it's about the ethical implications of climate change, especially human rights, the rights of indigenous peoples. But it's also about the role and responsibility of politics and also the role and influence of rent seeking groups, lobbying groups, et cetera, and how we could fight those issues.

**[Interview ends]**

**[music: Blue Dot Sessions, Cran Ras]**

**Christiane:** If you want to find more about our guest's other work, download a transcript, or learn about some of the things we mentioned in today's episode visit [prindleinstitute.org/examining-ethics](http://prindleinstitute.org/examining-ethics).

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