

Climate Change is Unjust War with Kyle Fruh and Marcus Hedahl

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. With me today are the philosophers [Kyle Fruh](#) and [Marcus Hedahl](#). Marcus Hedahl is a professor at the United States Naval Academy, and he's got a disclaimer to share with us.

Marcus Hedahl, guest: The views expressed in this interview are the views of the authors alone. They do not express the official position of the US Naval Academy, Duke Kunshan University, the US Navy, the Department of Defense or any other entity within the US government. And the authors are not authorized to provide any official position of those entities.

[music: [Blue Dot Sessions](#), Golden Grass]

Christiane: Most of us probably think of war as violent conflict between countries. There are aggressors and victims, and it's essentially a battle between groups of people. My guests today complicate this notion of war. They argue that many island nations around the world are currently in a war and fighting for their survival—and the enemy isn't other nation states, it's climate change.

Marcus Hedahl: It really is a war of the strong against the weak. It really is a war in which we are forcing grave, grave injustices on those that ought not suffer them, including our own children, grandchildren, and great grandchildren.

Christiane: Stay tuned for our discussion on today's episode of Examining Ethics.

[music fades out]

Christiane: Kyle Fruh and Marcus Hedahl have been writing and thinking about climate change together for a few years now.

Kyle Fruh, guest: My name is Kyle Fruh. I'm an Assistant Professor of Philosophy at Duke Kunshan University.

Marcus Hedahl: And my name is Marcus Hedahl and I'm an Associate Professor of Philosophy at the United States Naval Academy.

Christiane: In their paper, "[Climate Change is Unjust War](#)," they take [just war theory](#) and use it to argue that we're in the middle of a battle for the earth's future. They claim that potentially dangerous geoengineering projects like [Solar Radiation Management](#) might be considered weapons in the fight against climate change. We'll get into just what Solar Radiation

Examining Ethics is hosted by The Janet Prindle Institute for Ethics at DePauw University, and is produced by Christiane Wisehart. © 2022

Management is in a bit, but first let's kick off the interview with Kyle Fruh explaining the role of just war theory in their argument.

[interview begins]

Kyle Fruh: We take just war theory as a way of thinking about what it would mean for one state or a small group of states to engage in geoengineering all on their own, without the consent or permission or approval of the rest of the international community. And the idea is that just war theory, we think, does provide a justification for certain kinds of states anyway, in certain conditions to go ahead and do that. So, the big picture conclusion we're going for then is to say there's a kind of self-defense justification available to some states to engage in unilateral geoengineering, geoengineering without consent or permission of other states.

And what that really means then is that climate change is like more traditional forms of aggressive war. That's the real upshot of the paper for us is that the argument casts climate change itself in a new light where it's a moral equivalent of war, not in the [William James sense](#).
[laughter]

Christiane: So yeah, you're talking about a specific kind of geoengineering here, which is solar radiation management. And this is basically slowing the amount of solar radiation that can come into our atmosphere. And I wanted to know, first of all, before we go into detail about solar radiation management, which we also can refer to as SRM, just ethics-wise, why are you focusing on this specific technology as opposed to just geoengineering in general?

Kyle Fruh: So, neither one of us is a climate scientist or for that matter, any other kind of scientist. [laughter] So, since we're both philosophers, our real interest in this is the moral argument end of it. So, once the topic at hand was geoengineering, really our move was to follow the lead of other people who are more empirically invested and positioned in these kinds of conversations to look at what was already under discussion.

Among geoengineering alternatives, the thing that at the time that we're working on this article was getting the most play, was solar radiation management. And in particular, the injection of different kinds of particles into the stratosphere to deflect incoming solar radiation. My impression of that discussion is that, that is still largely true, that that form of geoengineering is the most promising in terms of making a significant intervention in the climate system that would mitigate the effects of climate change.

For our argument it's important that there is a chance that the proposal's going to work. And it has to also be the case that the proposal, for our argument to be interesting, I think it has to be the case that it's not perfect. We have good assurances that those are both solid assumptions. So anyway, that's why we ended up focusing on solar radiation management.

Marcus Hedahl: Yeah, and the reason why solar radiation management resonates is because it's also clearly a global change. If you look at certain forms of carbon capture, they don't raise immediately the same kind of concerns in terms of doing them unilaterally. And so clearly solar

radiation management and some of these other geoengineering techniques clearly raise those kinds of questions about under what circumstances can, if any, can you do them unilaterally, right? Because they definitely impact other political systems, not just your own.

Christiane: I would say I'm a little bit naive when it comes to these big ideas about helping solve the problem of climate change. And so I was a little taken aback when I saw that you had classified SRMs as an act of war, because I think a lot of people, me included, think of climate change mitigation strategies as like hippie things or like really cool sciencey ideas. So, why would an SRM or using an SRM be an act of war?

Marcus Hedahl: First we have to recognize we're only talking about unilateral deployment. So, in some hypothetical pollyannic world, in which everybody agreed that they wanted to do this, every nation of the world, that might be a radically different story. But if you actually look at the history of just war theory, there's lots of considerations with respect to environmental degradation. Victoria argued that the causes of Just War included damaging the environment. He gave examples of burning vineyards or olive groves.

Grotius went even further. And he had this great analogy that poisoning the land is analogous to poisoning a person. And while poisoning a person invokes the right to defend, within a community, poisoning the land triggers these kinds of environmental just war considerations. And in the 1970s, interestingly enough, in large part in response to the Vietnam War, there was a change in international law. There was a convention in 1977, the [Environmental Modification Convention](#), in large part because people started thinking about these possibilities and recognizing that changing the climate, if you're Canada to make it warmer, might not be appropriate and might be tantamount to an act of war on another nation, if it has those kinds of impacts where you're radically changing the way that they live.

The thing we care about in climate change is obviously mean temperatures. The changes won't be uniform, and now it's true in climate change, but it's also true in any intervention. The changes won't be uniform with that either. And so if there are some nations that would benefit and others that wouldn't, there are all kinds of concerns about doing this without that. That's why so many people in other literatures are talking so seriously about how do we build that kind of international consensus, because without it, they're at least serious problems and we think problems arise to the level of an act of war.

Christiane: If an SRM does constitute an act of war, you both argue that we need to figure out if it's an unjust act of war or a just act of war. And I thought at this point in the conversation, it might be good to briefly talk about unjust war versus just war.

Kyle Fruh: The inspiration to use just war theory as a framework for taking up this kind of question really was that apart from being a very longstanding tradition that lots of thinkers have contributed to, it's an area, it's a body of thought that has gotten a lot of uptake into international law. There's a pretty strong consensus around some aspects of just war theory. So, it's a very powerful tool for assessing the ways that states incur on each other's sovereignty. That was the

idea, right? And unilaterally making a serious intervention into the world's climate system is a very prominent way of interfering in other state sovereignty potentially.

So the idea is, well, okay, let's see if just war theory would ... What does just war theory put us in a position to say about that, right? For almost, for many kinds of incursions into other state sovereignty, right, just war theory, it doesn't have a lot of nuanced answers to give, right? It's going to say most of the time, the thing that allows you to go ahead and do that, to use force and intervene in other state sovereignty is one thing only. There's only one kind of justification available and that's self-defense, and every other kind of justification isn't going to work. So, for our argument, the only kind of justification on the table was going to be can the case be made, that some states could engage in unilateral geoengineering in self-defense.

Christiane: At this point in the conversation, I'm sort of understanding that. But I still maybe have a sort of naive view of war in general, like bad guy invades innocent country, and so innocent country can defend themselves. And so in this case, it's climate change versus an island nation say, that will literally disappear if the world gets any warmer. And so they're justified in using SRM because it's self-defense. But I still don't understand how there are any intentions on the climate change side, right? Because if it's capitalists, they just want to make money. They're not trying to drown island nations.

Marcus Hedahl: If we look at just war theory itself, it turns out intention doesn't matter that much there either. And so there's two kinds of cases in which we think nations can have a just cause to go to war even without intentions.

So, one is a case in which, independent of climate change, we think climate change is another area perhaps. But independent of climate change, you can look at negligence. So, if a country was really negligent with, let's say, its control of its nuclear weapons, a lot of people think that might give someone an opportunity. So, they're putting them at threat, not intentionally. They're not trying to intentionally harm them. It's actually a negligent kind of threat, but you might still think that that requires, or requires is too strong, a word. But allows for the use of force at times. It might be more limited because it's not intentional in the same way, but it still allows for that kind of intervention. Right? We see a similar kind of line when you think about unstable states. So, the justification, if one can be given at all for military actions in failed states is not that these states are intending harm to other nations. On the contrary it's that individuals within those states are intending harm and the state itself can't bring that to bear. By bring that to bear, I mean can't control it, right? Can't punish the people that are trying to harm those outside of its borders. So, if a state can do that, it's much harder to justify going in and stopping individuals that might wish your nation poor or want to do harm on them. But it's precisely the inability to form any intention on the part of the state to bring that down. Once again, it's the threat itself that justifies that. We see this as well, and I think this is really important, if you look at the history of the Just War tradition, at the beginning a lot of times people thought punishment was an appropriate reason to go to war or an appropriate end of a war to punish a state or to punish a leader.

But if you think about the severe and significant damage done in war, the idea that what we're doing there is punishing has really fallen out of favor over the last 300 years. And that we think demonstrates as well, that what we're talking about when we're talking about justifying war is the threat itself and not the intention behind it. Now, obviously if someone has an intention to threaten a nation like the current situation in the Ukraine, you might think that threat is much more alive, it's much more real, but it's the threat itself that matters for a just cause or for a just war, not the intention.

Christiane: I sort of briefly alluded to it, but I realized that we haven't quite outlined what the threat would be. So, I wonder if you could give us maybe a concrete example of a place in the world or a country that is right now threatened by climate change.

Kyle Fruh: Our argument is focused exclusively on states that face what you might think of as the most extreme possible threat through the effects of climate change. So, we're not talking about states that face drought or coastal erosion, or a lot of domestic migration or many of the other kinds of bad things that might happen as a result of climate change. Our argument is really limited to a small number of states that actually face extinction through the effects of climate change. For the most part, that means what we're talking about is states whose territory is entirely comprised of low-lying land.

So, we're talking about for the most part small States, Pacific Island States like Tuvalu and Kiribati and Vanuatu, places that if climate change continues will face extinction. As you mentioned are earlier, the dramatic version of this is that they'll disappear because sea level rise will just swallow them up. And that might well happen. But even way before that happens, they'll become uninhabitable, right? They don't have to literally disappear to become places that can no longer be states. And maybe the most acute pressure would end up being freshwater resources.

There are some other places outside of Pacific that face this danger too. The Maldives are comprised of very low lying land. Bangladesh has been given a lot of attention because some of it's, so much of its territory is low, but as far as I can tell it's not literally going to cease to exist or have territory. So, for the most part we're talking about small island states and it's important because those are the places that can avail themselves of the rationale that we're providing mainly self-defense right, where they're literally defending themselves against no longer existing. And other states, obviously it's worth discussing bad things that are going to happen in other states, but they don't figure in this argument exactly.

Christiane: So, I also feel like we haven't sufficiently talked about what are the risks of SRMs, right, because in my mind, right now I'm thinking, "Yeah, the citizens of Tuvalu are justified in deploying SRMs and why are they so bad anyway?"

Kyle Fruh: So, I think there's a lot to say about this. If we were really, if anyone was going to really try to do this in a way that would be meaningful, in a way that would stand a chance of making a difference in the effects of climate change. We're talking about a global intervention in

the climate system of a completely unprecedented kind. Now, the only available precedent is the process by which we've created climate change in the first place, but that of course was quite an accident. Trying to do it in an orchestrated way to achieve particular results is not something that we've ever done anything like.

So, there's a huge amount of uncertainty about our ability to do that. Some of the really big categories of worry include something called termination shock, which is the idea that once you start loading the atmosphere with these particles, you are committed to continuing to do it because if you stop and they all drop out of the atmosphere at once, then you would get really, really extremely rapid climate change that would be disastrous for everybody. So, if you're going to start doing it, you're on the hook for continuing to do it and continuing to control it in a stable way for probably a pretty long time. And you might think, "Well, is that something that human society is capable of committing to? Like 150, 200 year-plan to do something?" I don't know. That's one category for it.

Another category is a moral hazard kind of worry that if this technology comes online, what that means is that everyone's going to say, "Well, no longer any need to worry about our emissions. So smoke 'em if you got 'em." And then we actually won't solve the problem, in some ways maybe it we'll even make it worse, because of course, solar radiation management doesn't compensate for all the effects of climate change like ocean acidification, for example, right, is not addressed by this.

Another kind of worry is just within this empirical uncertainty that attends any geoengineering proposal is, as Marcus mentioned earlier, the effects aren't just even, right? And so depending on how much of what particle you inject and where the injection sites are and how that's all managed, you might get very different effects in different parts of the world. And on some proposals, some of the models suggest that it's just, it's not even possible to do this in a way that's going to get uniformly good effects. You're either going to make some places too warm. You're going to affect precipitation patterns or you're going to make some places too cold. So, it seems like on any geoengineering proposal, on any solar radiation management proposal anyway, you're going to get what we would call in some cases, anyway, winners and losers, right? Not everyone's going to come out. It's not just a big happy thing where everyone wins. People in different parts of the world will face different repercussions.

Christiane: So then how is it possible to justify using SRM specifically as an act of just war?

Marcus Hedahl: So, then that goes through. And the interesting thing about just war is it changes the framework and the lens from which you look at the problem, right? So, the way most people consider geoengineering proposals is from an objective standpoint of all people. And that's an important aspect, but as well, if you think about it from the point of view of countries that are going to cease to exist, you might think that they are allowed to take certain risks because of that fact, especially if they aren't guilty of the problem, right?

So Vanuatu, which is one of the places that Kyle mentioned, right, orders and orders and orders of magnitude less in terms of contributions to the problem than other nations. And so you might think if you go through the traditional just war proposal, if there is a cause that's just, if there's a threat to them that is significant, right? If they are a legitimate authority, if they have the ability to speak for a nation, right? If it is a last resort and while it may perhaps not be there yet, I would think that we're getting to the point of last resort. That given the inaction at an international level for 30 plus years, at some point surely these nations might be able to appeal to some sort of means as saying that we've tried everything else, it's not like they've gone through other possibilities.

And then there has to be a reasonable hope of success. It has to be proportional. The threat that they're posing to others has to be proportional to the threat posed to them. And we think all of these criteria can be met, maybe not right at this moment, given the current stage of technology and given the current risks, but at the very least, it seems to us that those nations are going to be justified in appealing to this kind of move before it would be justified from a purely objective point of view. And it certainly seems that that time could come in the very near future.

Kyle Fruh: So really the basic idea is that there's a bunch of states sitting around who haven't really contributed to creating a problem of climate change at all, and who nonetheless are looking at a future in which they no longer are states because of the effects of climate change. Right? And so the idea is from their point of view, so we argue, they have a look at the rest of the world and say, "You guys are the ones creating this problem for us. You guys are the ones declining to do anything about it now for a long time. So listen, we're going to take it into our own hands and do something about this." Right? Now, when we do something about it, it's not just going to make everything better for everyone. Fine. Some of you are going to be made worse off by this, but you know what, that's a cost you have to bear because it's not the cost that we face. The cost we face is that we no longer exist.

And the core thing that just war theory captures and honors, right, is that states have a right to defend themselves in this way from external threats. And if in defending yourself you make some other states' parties worse off, okay, you have to attend to that, for sure. You can't be reckless. Right? But as long as other states through the geoengineering aren't facing extinction, right, then the threat that's headed off by using the geoengineering is the greater threat. And they can defend themselves against it.

Christiane: I think anytime, unfortunately, anytime we're talking about aggressors versus victims, especially geopolitically, there's always somebody who says, "Well, why can't they just move?" Right? If their island is sinking, why can't they just move to a better place? So, what would you say to people who make that kind of argument?

Marcus Hedahl: I mean I think we all understand the importance of our culture, our place, our society, our government. There is an important aspect in which we care about individuals and

we care about individual flourishing and suffering, but at the same point, that individual suffering and flourishing is always rooted within a community, both political and social and geographic. I don't know how the Maldives keep their community if they're in Colorado. It just seems to be not the kind of place where they can have the community that they have now. And so is that worth everything? No. At some point, if the only way you could save that was so damaging, obviously you would say that they would have to suffer that fate. But it's unclear to us that's necessarily always the case. And it would allow for some actions that otherwise wouldn't be to protect a way of life.

Kyle Fruh: And it's super clear in this kind of case, right? We're talking about political communities, states, that are very small, that are very powerless, right, on the international stage. And the great thing about just war theory though, right, is that it protects sovereignty regardless of how powerful a state you are. Right?

So, the idea that I think behind this impulse they're like, well they'll have to find somewhere else to carry on because the islands aren't going to work anymore. There's an ease in that suggestion that comes because we know with sitting here in the United States, or in whatever other powerful countries that are big emitters, that these countries, these states will never be able to force us into anything.

But that's just a power relation. That's neither here nor there with respect to what would be just. It's very easy to overlook that these islands have been durable homes for people and cultures and communities for a very long time. And that is something that we in creating climate change are taking away. And to suggest that like, well find a new place, right. That's just an imposition of power. That's not a moral argument.

Christiane: I found this idea that climate change is war so provocative, just such an interesting way of thinking about climate change. The end of your piece left me thinking, what would my role be? Or what would any individual's role be? Because when the Iraq war started, as a citizen of the United States, as a citizen of the aggressor country, I felt like if I was against it, I could do certain things like protest or write to my senators or whatever.

And I feel like maybe if you live in the States, you're in the aggressor position, right? Because we're such big emitters. So how should we maybe reframe the way we think of ourselves as individuals if we're thinking about climate change as war.

Marcus Hedahl: I think it's even stronger than that. So, I will say I've talked to people who don't share the power of this intuition. But I was not merely a citizen in 2003, I was on active duty military. And to be complicit in what I felt was an unjust war, was much more powerful for me than to be complicit in other injustices. I recognize I'm complicit with a host of injustices because I participate in a host of different things. But to wear the uniform and to be complicit in a war that I knew in my heart of hearts was unjust was a different kind of feeling.

And if we say that by participating in climate change, we're much more like soldiers participating in unjust war than we are in participating in other kinds of injustices. For me, that's a much more stronger kind of pull and it requires much more action on my part to try to do all I can to both stop that injustice and try to make whole those who have been harmed by it. Now, everyone may not share that intuition.

But thinking of ourselves as soldiers in an unjust war, I think is a really powerful notion. And if we think about our relationship to climate change that way, I think it's a way that for me, change is completely the way I think about the problem. That may not be true for other people. But I certainly know a lot of military members who have believed at one time and the other, that a war their nation was fighting in was unjust. And the moral injury and moral stain of that is people in the military just talk about that differently than they talk about other injustices that they recognize they're complicit with.

And that's the goal, is to maybe make us to think about it that way, right? That it really is a war of the strong against the weak. It really is a war in which we are forcing grave, grave injustices on those that ought not suffer them, including our own children, grandchildren, and great grandchildren.

Kyle Fruh: The argument taken in this paper really doesn't address individuals, right? We're trying to cast climate change in a new light, mostly thinking states are the ones who engage in behaviors that are acts of war. So this is a great question, right? What are the implications for us as individuals? And this idea of complicity seems like that's where all the questions are. And I think in some ways this is the question of contemporary human life is how do we ... We're all entangled in so many arrangement systems, economies that have morally problematic elements.

How do we manage that? What are we supposed to do about that? And those are definitely not questions that we even try to answer in this paper. But I think asking them and asking them in this particular light that Marcus was talking about, it's like what would you do if you were a soldier who was fighting in a war that you knew was unjust, right? That's a different way of thinking about what is my place and trying to move towards meaningful climate action. And so I think that's the direction we're certainly interested in pushing, but it's not something that we undertake as part of this argument very explicitly.

Christiane: Why do you care about this? How did you come to this work?

Kyle Fruh: So, we were in graduate school together in philosophy and both had an interest in environmental stuff. And climate change was a place where our different moral, theoretical interests really seemed to come together. We both got turned on to the really extreme end of what climate change is going to mean for some places. Right? And we were both looking for ways to think about: what do we do with this, that things are going to be so bad for some places. I think we just, we had already, we were already in a mode of thinking together and working together about things and those conversations just found their way into this argument.

Marcus Hedahl: This problem as the defining issue of our generation and maybe several generations. I saw a meme recently that was like it was the horror on the look of kids in 2060 when they looked at ... When they studied history in 2020. And I thought that it got totally backwards, right? That what we've seen in the last few years is nothing compared to what we're going to see in years to come.

And I spent a year of my life working on this issue with the Mary Robinson Foundation for Climate Justice. And I think anyone that does that for any significant amount of time becomes convinced more and more of the significance of this issue. And there's not much we can do as philosophers. The one thing Kyle and I, if we can do any small part, is if we can change the frame in which people look at something. And I think when we both realized that we thought that this was actually not just a metaphorical frame, but a quite literal frame, right?

That climate change actually is unjust war that maybe that a small, very small part that we could do, because of course as we're not scientists, right. I can't go out there and make things better right away. And I'm certainly not at the levels of policy. As the disclaimer says at the beginning, right? I can't change US policy. I can't speak for the government. But if this really is probably this door will solve all the problems that we face, then we need to change the way we think about it. And hopefully maybe our work can do some very small part in doing that.

[Interview ends]

[music: [Blue Dot Sessions](#), Pintle 1 Min]

Christiane: If you want to know more about Marcus Hedahl and Kyle Fruh's other work, check out our show notes page at examiningethics.org.

Examining Ethics is hosted by The Janet Prindle Institute for Ethics at DePauw University. Christiane Wisheart wrote and produced the show. Our logo was created by Evie Brosius. Our music is by Blue Dot Sessions and can be found online at sessions.blue. Examining Ethics is made possible by the generous support of DePauw Alumni, friends of the Prindle Institute, and you the listeners. Thank you for your support. The views expressed here are the opinions of the individual speakers alone. They do not represent the position of DePauw University or the Prindle Institute for Ethics.