

## PODCAST: EMBODIED INEQUALITIES OF THE ANTHROPOCENE

### EPISODE 6:

### "Environmental Reproductive Justice"

**00:00:00 Laura Montesi:** Embodied inequalities of the Anthropocene. Building capacity in medical anthropology. A podcast series that analyses the human and non-human health impacts of this geological epoch of profound transformations.

**00:00:21 Jennie Gamlin:** Welcome to this episode of Embodied Inequalities of the Anthropocene, a space dedicated to exploring the health and well-being of human and non-human societies in this new geological epoch. This podcast is an international collaboration between universities in the UK, Mexico and Brazil. In this series, we'll be exploring the research area of experts involved in themes relating to this project, including indigenous experiences, ontologies and coloniality of the Anthropocene; gender reproduction and environmental justice; multispecies ethnography and human animal health; COVID 19, epidemics, pandemics and public understanding of the Anthropocene; and chemical toxicity and exposure.

So, for this purpose, we've invited Katie Dow and Julieta Chaparro. Katie is an independent researcher currently working on net zero in government. She previously worked as a senior research associate at the University of Cambridge and was deputy director of the Reproductive Sociology research Group there. Katie's research expertise is in intersections between the reproductive environmental concerns and activism, and in the ethics and politics of reproductive technologies. She's published across a range of journals and published her monograph 'Making a Good Life' with Princeton University Press.

Julieta is a Wellcome Trust early career fellow in the Department of Sociology at the University of Cambridge. Her work interrogates how present-day colonial conditions influenced the reproductive life of peasants and indigenous women in Peru. This includes examining the impacts of aggressive population control programmes and chemical exposure via extractive industries. She is currently completing a book manuscript examining the cases of forced sterilisation in Peru that took place during the 1990s, titled 'Decolonising Reproductive Rights' in Latin America.

I'm Jenny Gamlin. I'm an associate professor of Anthropology and Global Health based at the UCL Institute for Global Health, and I'll be conducting this interview. So welcome, Julieta and Katie, to this podcast session. We're really pleased you can both join us and excited about this conversation. We'd like to start with you, Katie. Do you think you could start by explaining what environmental reproductive justice is, specifically explaining the connections between environment and reproduction?

**00:02:33 Katie Dow:** Thanks so much, Jenny. It's great to be here. So maybe we can start with reproductive justice and environmental justice. So reproductive justice was developed by indigenous and racialised feminist scholars and activists in the US, with the aim of expanding

notions of reproductive rights. And it has three pillars which are the right to have a child, the right not to have a child, and the right to parent in healthy environments. Environmental justice was similarly developed by poorer and racialised communities and activists in the US, and they were protesting and highlighting inequalities in how environmental risks and degradations are distributed.

So environmental reproductive justice, as the name suggests, brings these two together. But it also has a distinctive history, and a lot of people date it back to the Mohawk midwife and researcher Katsi Cook, who proposed environmental reproductive justice in the noughties. So, she wrote a piece called 'Women are the first environment' and in it she says, 'because our nursing infants are at the top of the food chain, they inherit a body burden of industrial contaminants from our blood by way of our milk. Thus, we are part of the landfill colonised' – which I think is a really, really powerful statement. The feminist and queer ecology scholar Noel Sturgeon also proposed environmental reproductive justice, or ERJ, around the same time. And Sturgeon also draws on indigenous scholarship but doesn't actually cite Cook, so presumably wasn't aware of her work at the time. But either way, the two formulations are very similar, and I think very complementary.

So, for me, ERJ is a framework for understanding the complex interactions between environmental, planetary health, reproductive and child health, and how these are structured by legacies of colonialism and capitalist development, such as industrialised agriculture, racialisation and other forms of injustice. And I think ERJ also really helps us to elaborate the third pillar of reproductive justice: the right to parent in healthy environments. I think it's a really useful way to get beyond individualism and so-called choice-based rhetoric, much organising around reproduction and the environment actually, particularly the kind of activism that is often the most visible by elite white middle-class actors, like myself. And it's really important because it draws attention to injustice, but it's also intended to empower marginalised communities and the ways in which they're already responding to crises in the environment and climate. So, it's not, you know, a sort of form of victimisation.

**00:05:11 Jennie:** Thanks very much, Katie. That was brilliant. And thanks also for historicising the concept, I wasn't familiar with some of that history. So Julieta, building on what Katie has told us, can you tell us a little bit about why it's important that we engage along this intersect of environment and reproduction in these anthropocenic times?

**00:05:31 Julieta:** Well, thanks, Jenny, for inviting me and it's a pleasure to be here today. So, I think this question is really indicative of a growing interest in the intersections between environmental issues and issues related to reproduction, in this case, as your question puts it, in the context of the Anthropocene. But I also want to highlight that there are other important socio-economic and political developments, in particular in the global South, that also have ignited questions looking at the intersection of these two.

For example, armed conflicts and extractive industries, I can cite these two. An example of this is a report issued by the centre for Reproductive Rights in Colombia documenting the effects of glyphosate, which is a pesticide used to eradicate coca plants in the southern part of Colombia, and the effects that glyphosate has on women's reproductive lives, particularly peasant and indigenous women. So, you know, these issues are connected to the Anthropocene, but certainly have their own specific historical trajectories that also have an influence in people's reproductive lives.

So, I think that the connection between the environment and reproduction becomes very clear when we see how fertility has become kind of like indexical or indicative of environmental concerns. And the question is why? Why reproduction has become indexical of that. And for one thing is because environmental damage really threatens life, and it's one of its key characteristics, which is the capacity to reproduce itself. Right? So, it has limited the possibility of continuing life as we know it and the way it is organised in the world right now. So, we can say that the Anthropocene is really a crisis of life.

But I would like to highlight that it is a crisis of reproduction. It's a reproductive crisis because, as I said before, it threatens the possibility for different living communities to continue living in this planet, right? Katie has suggested this, and we also wrote it in that book chapter that we have together; is that the question of extinction that is closely related to the Anthropocene is really the result of death, but also is the product of reproductive failure of different species. Right? So, considering this kind of like overarching framework, the intersection of environmental issues and reproduction really forces us to think about reproduction in a multispecies register; so we can not only think about the effects of the Anthropocene or, let's say, armed conflict or extractive industries only on human and biological reproduction, but really the reproduction of all living communities and also thinking about reproduction in its social and cultural dimension.

For example, in my own research in Peru, in Cajamarca, in the northern part of Peru, where the largest gold mine is located, people voiced concerns about animal welfare. They talk particularly about foetal malformation in animals, miscarriages in animals. So that has important repercussions for peasant economies that rely on animal husbandry for their survival. So, there is an important connection going on there. But we also see this connection between human and other living communities. Reproduction in emerging research on reproduction and microbiome, for example, this is something that is emerging, and we see these connections happening. And also, research documenting the impact of environmental conditions on human reproduction, for example, the effects of pollutants on sperm quality and sperm quantity, but also the impact of environmental factors on ovarian health, for example. So, these are the ways that we can see these two fields, kind of like overlapping and illuminating an interesting process that, you know, different researchers are taking on.

**00:09:27 Jennie:** Thanks so much, both of you. You know, that was a really broad and complete explanation. And it's just really super clear how this isn't just important now, but going forward, it's going to become more and more important across so many areas of life in the future. So,

starting with Katie, we'd really like it if you could just tell us briefly about how you're quite different research trajectories have shaped how you came to questions concerning environmental reproductive justice?

**00:09:55 Katie:** Yeah. So, for me, it actually came out of my research. I didn't sort of go looking for it. I did ethnographic research for my PhD on reproductive ethics and how people make ethical judgements about assisted reproduction. And I did fieldwork in rural Scotland. And I went in and I was very interested in ideas about nature with a little n and a capital N, but there in Scotland, in the place where I was doing my fieldwork, people were interested in nature in quite specific ways. So, for example, people were very interested in cetacean conservation. And there was a local population of dolphins, which people felt was, you know, really important part of the context there, an important reason for being there, something that made the place special. And as often happens with whales and dolphins, they were also very interested in environmental degradation more broadly and climate change and involved in environmental activism.

So, it led me to sort of think about what does nature and naturalness mean in reproductive ethics – when nature is also a very sort of tangible thing out there, when it means a specific landscape and encounter with other species and a way of thinking about the world, which is more multi-species and is less sort of human-centred. And at first I sort of struggled to reconcile what seemed to be different issues: so reproduction and the environment. And that was reinforced by a lot of reactions to my research, but I sort of stuck with it and continued to tease out these connections. And it's really become a vital framing for my research ever since. And, you know, it's really nice to see how the topic has gradually increasing its salience. Well, it's nice for me personally in terms of validating my research, but it's obviously not nice in terms of what it indicates about the situation we're in more broadly.

And so, you know, listeners might well be aware that there's been increase in tensions to reproductive decision-making in relation to climate change, particularly in places like the UK. But I think we need to follow Katsi Cook's example and look more broadly. And like Julieta was just saying as well, at how intersections between reproduction, the environment and the injustices around that, reflect how we as a species are dependent on other species. So, we need to think about, you know, how we grow food and childcare, alongside all the rhetoric about children and future generations in climate campaigning, which can be very effective, but is also potentially still pushing things into the future and can actually delay action.

**00:12:31 Jennie:** Thanks so much, Katie. Julieta, we'd love to hear from you, too.

**00:12:36 Julieta:** I arrived to questions of the environment in a different way. So, I was doing my PhD research on forced sterilisation in Peru. This happened in the 1990s, targeting primarily indigenous and working class women across the country. And I was interviewing survivors in the northern part of the country in Cajamarca. And, you know, at the time I was listening to their own reproductive grammar around reproductive violence. So, people talking about how they have experienced this sense of debility or physical weakness as a result of sterilisation.

And I was also listening in the everyday life conversations with people in the region, all these concerns around the impacts of extractive industries. So, I think it's worth mentioning that Cajamarca houses the largest gold mine in South America. This opened in 1990, really like the transformation of Peruvian economy and the opening of the mining sector to private investments. So, this mine was really the first one that spearheaded that whole transformation in the Peruvian economy, but also transformation of the economy of the region. This was primarily agricultural-based economy, and it changed to extractive – extraction of gold and copper primarily. And people were complaining about, you know, the impacts of being constantly exposed to chemicals as a result of extracting these raw materials from Earth. Especially women always voiced their concerns, talking about how they're going to feed their children now that, for example, food production has lowered as a result of contamination of water sources, but also concerns about feeding their children and their animals as well with food that is potentially contaminated. And this has also broader consequences, as I said before, to the local economy. Cajamarca has a large dairy economy, so production of cheese, yoghurt, milk-based products. And then there is a growing concern about what happens with these products, with animals that are exposed to chemicals. So, I started hearing these narratives, and it got me interested in thinking about extractivism and reproduction together. And that's how I got to this project that is the one that I'm currently developing here in Cambridge.

**00:15:03 Jennie:** Thank you so much, both of you. I mean, between the two of you, you've mentioned such a diversity of themes. So, you know the different contexts from Scotland to Peru, microbiomes, current affairs in the UK. And Julieta, at another time, I'll ask you more about your research because it sounds really amazing. But we wanted to ask you right now if you could just, a little bit more, about the essay you wrote on environmental reproductive justice, where you criticise the individual focus on agency and responsibility as responses to the impacts of toxic exposures on reproduction and reproductive care. So, in the essay, you also counter pose notions of individual personhood in response to collective human and more than human dimensions of toxicity, where exposure and managing exposures become more actually of a collective problem. So, could you give our listeners practical examples of why thinking about individual agency and responsibility is actually inadequate or equivocal in terms of understanding environmental reproductive problems? I mean, for example, why do we need to think more in terms of collective effects, collective responses, and even chemical kinship, when talking about and treating these problems in relation to environmental reproductive justice?

**00:16:16 Julieta:** Yeah, I think this is a really important question, because the framework of the individual responsibility has been at the forefront of responses to environmental contamination and pollution. One piece to this question is acknowledging the fact that bodies, environments, generations are all interrelated. So, it's really defining this ontological premise of individual separation and isolation. But also define the idea that our bodies exist in a vacuum, our bodies succeed as free-floating entities that have no connection with other parts of our environment. And I think this is something that different scholars have said that our bodies are porous, that we are

entangled with each other. So, you know, we need to start by addressing that ontological premise in Western thinking.

But the idea of this connection becomes even clearer when we think about the ubiquity of chemical exposure. Right? Also this idea casts doubt on health as an individual entity, as something that we can safeguard when we take action, and we can make sure that our existence is secure. And yet, despite all this, we know that the responses to chemical exposure and environmental damage have focussed primarily on the individual and their behaviours. So, the goal is really to control what we eat, for example, what we buy, what we touch as a measure to prevent being polluted. And I think this is a very appealing framework because it gives people a sense of agency and control over something that seems to be so overwhelming and omnipresent in our lives. So, if you can control the food that you have, or if you control the type of clothing that you wear, wearing organic cotton, all those things give you a sense of control in something that seems to be uncontrollable or something that is out of our reach.

But we know that this is really a mismatch. And here I'm using the words of Max Liboiron on 'Pollution is Colonialism', where they say that this individual framework for addressing environmental concerns and problems is really a scalar mismatch, because we have a planetary problem that cannot be really addressed through the individual. Certainly, there are things that you could do to prevent things, but it's not the solution, right? It doesn't really address the problem. So, what we need to do is really to recalibrate these scales, right? To interrogate what are the historic relationships that make chemicals omnipresent in people's lives and causing so much harm, but also omnipresent in general in our environments?

But this is also, I think, important piece here is to not lose track of the racialised disparities of exposure. It doesn't mean that because we are all entangled and we are all living in this world, that our vulnerabilities are equally shared. That's not true and this is something that various scholars have highlighted. And we see these particularly prominent when we look at extractive zones, for example, we see that these zones are usually located in territories and lands of indigenous and peasant communities. And we see that there is a clear disparity in how chemical exposure is distributed across racial and class lines.

And I also want to highlight: so, if we have this planetary concern and the individual responses are inappropriate, then collective responses are really the way that we can come up with imagining futures that can help us to survive in the midst of contamination. And here, for example, I want to highlight the work that I see in Cajamarca, particularly the work of peasant women's patrols, the work that they did, for example, back in 2012 to prevent the expansion of the largest gold mine in South America from growing. So, there was an intention to expand the mine and really it was collective action that prevented that from happening. And the project has halted and it's not happening at this point. And it's really the result of political mobilisation on the part of the 'rondas campesinas' or peasant patrols. But also they do, for example, bio monitoring of water sources, you know, so they can help people to make decisions like where to get water from, for cooking or feeding their animals. They also have plant nurseries. So, you know, these efforts to reconstitute



life. And I think that's what happens when the collective comes in, is like we not only live in a moment of ruination, but it's a possibility also of rebuilding life. And I think that happens when collectives come together in response to environmental damage.

**00:21:02 Jennie:** Thanks so much, Julieta. I'm actually just gonna slip in a little spontaneous question here, which comes on to the end of what you've been saying, which is that how can we shift this individual focus in public and global health discourse?

**00:21:17 Julieta:** How do we shift it?

**00:21:19 Jennie:** Yeah. How do we move away from this individual focus, you know, in dominant discourse?

**00:21:24 Julieta:** Wow. That's an interesting question. I think that it's not necessarily moving away, but it's recognising that it can do so much really to the problem. There are things you can do at the individual level. That's no question about it. But we need to refocus or put our energies in really making collective futures and collective efforts to change the world that we live in. And that can also be faster with, for example, public policy that provide funding for collectives and groups addressing environmental damage. I'm thinking about the plant nursery, for example, if the Peruvian government provides funding for expanding the plant nursery and people do it collectively, then, you know, there are probably responses to that that can be more appropriate for the type of problem that we are facing.

**00:22:15 Jennie:** Thanks very much. That was really helpful. Okay, so Katie, last question for you. Would you be able to explain to our listeners how environmental reproductive justice is related more broadly to our project, the Embodied Inequalities of the Anthropocene? And so, for example, how it intersects with the other themes of our project: indigenous ontologies and coloniality of the Anthropocene, multispecies ethnography and human animal health, COVID-19 and pandemics, or public understanding of the Anthropocene.

**00:22:44 Katie:** Yeah. So, I mean, I would just reiterate what Julieta has just said about colonialism, but, it's worth remembering that Katsi Cook, as a Native American tribal member herself, was attentive to colonialism from the start. And so that attention to colonialism and its legacies is really sort of baked into ERJ. But of course, it's a specific kind and legacy of colonialism in indigenous North American setting. And I'm very interested to see how and whether ERJ can translate across different contexts. I think it can. But I think a key factor in that is that this attention to colonialism, racial injustice and bottom-up perspectives is retained, but also developed further in those specific contexts. I think, relatedly... So Cook came up with ERJ in response to a community-based participatory research project that she led. So, I think it's also really fruitful for us as researchers to think about how we can also take the tenets of ERJ into research design.

More broadly, some of your listeners might be aware that the Anthropocene concept has itself been critiqued by feminist and minoritised scholars. So briefly, those critiques relate to the

question of who is the Anthropos in the Anthropocene? And that's not only about what kind of picture of humans that generally elite scholars have in the back of their minds when they think about so-called humanity, if they're being really honest with themselves, is it a middle-class white guy? But also, what kinds of lifestyles and consequent effects on the environment does that archetypal human have, and how responsible are they for the climate crisis, and how much power do they have to arrest it? So, does it make sense? And is it fair to put all humans into this Anthropos, who seems very destructive and rapacious and has a very particular relationship to the environment, and of course, you know, we might want to think about multiple environments.

On top of this, if we think of humans being 'the problem' as the Anthropocene concept implies, what does that mean for climate action? If we're thinking of the Anthropocene as indicative of a set human nature, which is sort of hell bent and bound to destroy the planet, then how and can we ever stop doing it? And that is, you know, massively disempowering and apocalyptic actually, I think. So, some scholars have done some really interesting work on this and have proposed alternatives to the Anthropocene, such as the Plantationocene and the Capitalocene. Personally, I quite like the Capitalocene, if we have to have a -cene, which is another question, because I think it homes in on something more specific than humans are the problem. But blaming capitalism for the climate crisis, which is obviously simplifying it a bit, I think is still capacious enough to encompass colonialism and intersecting inequalities of race, gender, ability, and class that are inextricably linked with and reproduced through capitalist ideologies and practices.

And this comes back to ERJ for me, partly because my brain always comes back to reproduction, but also because once again, we need to remember Katsi Cook's original research, like I mentioned. And so that was looking at the effects of PCBs and other contaminants from a former GM car plant leaching into water and soil, where Mohawk people live, grow food, fish, and raise their families. And Cook was specifically interested in breastmilk since, as she said, humans are the top of the food chain, but also toxins, bio accumulate in tissues like mammary glands. So, we all know that breastfeeding is the healthiest, most natural, best start in life. But what if your breastmilk is contaminated by the literal run off of capitalism? And I think this is so powerful to think about how such a formative, vulnerable time when an infant is getting their first nutrition and when parents are first getting to know and care for their children, is so riven with danger and injustice. And I can't really think of a much more embodied inequality in the Anthropocene.

**00:26:58 Jennie:** Thank you so much, Katie. That's really interesting. I mean, I'm fascinated by the discussions around sort of Anthropocene, Plantationocene, Capitalocene. And I think that the concept of the coloniality of being is also, for me, a real starting point for what we're talking about, because that talks about how we as human beings live on this planet, engage with this planet, what our direct relationship is with nature and with each other. And I wonder if we can make that somehow into a -cene, the coloniality of being. Anyway, thanks very much. Okay, so to finish up, Julieta would be great to hear from you. One last question. What do you think is the most pressing research agenda for ERJ going forward?



**00:27:40 Julieta:** Well, I think that I'm speaking from my own, you know, standpoint here. And that means, as a Latin American anthropologist in the global North academia, I think the question of extractivism is really important. And the reason for that, it's because in the context of the energy transition and all the discussions of clean energy and moving to electric cars, and solar panels, and all this beautiful picture in the global North, it's going to come at the expense of the environment and the bodies of people in the global South, primarily where the lithium extractive zones are located. So, we heard recently about Elon Musk, for example, in conversations with the new Argentinian president because of his own interest in lithium extraction for, you know, the construction of his electric cars. So, I think this is a new dynamic in the history of extractivism that is going to be profoundly exacerbated, and it's going to have even more impacts on communities that have been historically affected by this. So, for me, that's one of the important aspects, or one of the horizons for ERJ scholars to focus on. Yeah. I don't know if Katie has something to say.

**00:29:10 Katie:** Yeah, I do actually. Thank you. And also, I just want to give a shout out to Julieta here, because I think her work on extractivism and this new focus is so important and for the reasons that you've just said, Julieta. So, I've been thinking about lithium quite a lot recently. And, you know, it's difficult because we're finally trying to do something. We – governments – are finally trying to do something about the climate crisis and trying to decarbonise energy. And it's a really tricky balancing act because we do need to find new forms of energy, but that needs to be done in ways that minimise harms to the people involved in these industries and to the environment.

But unless we have a completely different world, you know, we need these so-called critical minerals. So, this is a really key area to watch. And also, just building what you were just saying Julieta, Elon Musk is definitely not the only person who is looking at, you know, getting their own lithium. So, lots of governments, including the UK government, are very set on what they call onshoring lithium production. So, you know, lithium mines are being developed in Cornwall and County Durham, which I think it's fair to say are, you know, they're post-industrial areas and they're areas in which some of the injustices of those kinds of industrial industries are, you know, they are there in the memory, shall we say. I mean, it's there obviously, differences with the lithium triangle in Latin America, but I think we really need to sort of watch this area and it actually comes back to ERJ as well, believe it or not, because the European Commission is currently assessing whether lithium should be classified as a reprotoxin, which is something that the UK government has essentially sort of declined to do. So yeah, that's what I would add to that.

**00:31:07 Jennie:** Thank you so much, both of you. This is just really, really fascinating to listen to. And of course, look, what's really evident in this sort of final part of the discussion is how going forward, both population and environment and the sort of questions they raise and the threats they raise, are just going to get bigger and bigger. And so, it's sort of as we solve one issue, another one emerges. Yes, it's been really great to listen to you. And before we go, did any of you want to add any last words or anything? Katie.

**00:31:35 Katie:** Yeah, it was just going back to the discussion about agency. I think it's really important to look at historical precedents, especially with something like what is generally called net-zero at the moment, which although the terminology may or may not shift, but with climate action, I think it's worth looking at what's worked before for similar issues. I mean, maybe there's nothing that's quite as broad and wide ranging as climate change, but for example, bringing in the ban on smoking in public areas in the UK, it came about after years and years of greater awareness about the individual health effects of smoking. Of course, some of that was not taken up because the tobacco industry, which then went on to inform fossil fuel industry, was very, very good at countering any claims about the health effects of smoking, the negative health effects of smoking. And what shifted things in the end was a massive change in the narrative, which I think is really important to take into account. And that shift in the narrative was a shift towards public health, and it was about the dangers of passive smoking. So that fitted with a narrative "oh, it's, you know, your individual choice if you want to smoke". But when it became about it's your individual choice to smoke, but you may be harming these people around you – that's when it really sort of gained purchase. And I think that, you know, that's a really important lesson to remember with climate action.

**00:33:17 Jennie:** Completely. I completely agree with you. And I think one of the questions I have very much, which is what I posed to Julieta a while ago, is how do we shift that narrative in relation to these issues that we're discussing? You know? How do we get people to question what car they're driving, the size of their house, what they're eating, you know, how much meat they're eating and the public impacts of that? Anyway, thank you so much, both of you. This has been a really, really interesting discussion. And for our part, we'd like to thank you for listening and invite you to continue reflecting with us in the episodes to come. These other disciplines and themes will bring us new perspectives on the different challenges posed by the Anthropocene and inequalities in the health and human and non-human populations. Thanks very much, everybody.

**00:34:03 Laura:** This episode was recorded virtually in the UK. Jennie Gamlin conducted the interview and wrote the script. Laura Montesi lent her voice for the jingles. Gabriela Martinez managed the general production and Juan Mayorga took care of the audio edition in post-production. This podcast is an international collaboration between the University College London in the United Kingdom, the Universidade Federal do Rio Grande do Sul in Porto Alegre, Brazil, and the Centro de Investigaciones y Estudios Superiores en Antropología Social in Oaxaca, Mexico.