Episode 1: Energy Futures with Simone Abram
Interviewer - Lucie McNeil

Interviewer:

We all love stories, stories about ourselves, about how we live and what the future might hold. We know that's why lots of people, myself included, just love being part of book festivals to explore the story behind that individual's unbelievable way of thinking up a book right there up close. To try to understand a different way of looking, of being from a different seat. This is what anthropologists do too. Listening, learning, and holding a multiverse of other people's stories so that we can question often entrenched perspectives and think again, because we're still very new here on the planet. Anthropologists help us understand where our present day conditioning comes from to loosen its grip a little bit. So, we took a tea break or two over summer in Durham University, one of the largest anthropology departments in the UK with six of their researchers. Researchers who are on vastly different journeys to understand many different groups and individuals' ways of being. Their stories can help us think about how we live now and next.

Simone Abram:

I think almost every week when I was studying anthropology, I had to do an essay every week on a new theme. And every week there was a kind of, oh, I see moment where I just kind of understood more about the world and how people work together and which things you could take for granted and which things you shouldn't. That was just revelatory really for me. One thing you do learn is that something, a phrase like or a term like environment, it's really not a universal term. If we think of nature as something that exists outside of us, then we're making a kind of category mistake because human beings are animals as well. Right? We're part of this thing that we call nature. But, if you talk to indigenous people in and around Australia and in the Arctic region, you realize that they don't think of nature that way. They don't even have a word which necessarily means the same thing. Those boundaries that we draw between ourselves and nature, they're not there.

Interviewer:

Simone Abram's work has always been thinking about livable energy, futures of change and of time. She talks to us about her work looking at adaptive local solutions when working with engineers and local governments. What's your name, your title at Durham, and what did you want to be when you were a kid?

Simone Abram:

My name is Simone Abram. I'm a professor in the Department of Anthropology at Durham, and I'm also on the executive committee of the Durham Energy Institute. When I was a teenager, I wanted to be an electrical engineer, probably because I was good at maths and physics at school, and I would like to know how things worked. I actually went as far as a master's degree in electrical and electronic engineering before I realized that actually people are more interesting than machines. Then I went to do a master's course in social anthropology and I was really taken by it, carried on in that direction.

Interviewer:

What do you think took you into it? What was it that you enjoyed about social anthropology?

Simone Abram:

I think almost every week when I was studying anthropology, I had to do an essay every week on a new theme. Every week there was a kind of, oh, I see moment where I just kind of understood more about the world and how people work together and which things you could take for granted and which things

you shouldn't. That was just revelatory really for me, having had this very technical education to be able to suddenly see other things.

Interviewer:

I love that. That a really good place to start. Can we ask you, Simone, as we begin this series, how do you think anthropologists are thinking about the future?

Simone Abram:

One of the great things that you learn when you're trained to be an anthropologist is how to problematize things that you would otherwise take for granted. When we think about the future, we're already making a lot of assumptions about the way that time passes, for example. Lot of the earlier writing about time in anthropology has been questioning those assumptions. For example, western assumptions about time being a linear thing. One of the first things that anthropologists were writing about was that time doesn't just go in one direction. It also goes round in circles and things repeat at different speeds or different frequencies if you like to use a technical term. It means that anthropologists have thought very carefully about what is it that people are talking about when they talk about the future, not just what is the future going to be, but what are we doing when we're thinking about the future?

What is the thing called future that we have in our heads when we're imagining it or talking about it? A lot of anthropologists in more recent years have been thinking about the way we imagine the future as something that needs to be investigated. They call that future imaginaries and they call it future imaginaries because it's not something that every individual does on their own. I have my imagination of the future, but actually we have common imaginaries. We have common things that we imagine for the future or about the future or what we think the future is as a thing in itself. A lot of my colleagues are looking at all sorts of questions around first, when is the future? Is it now? When's the horizon? When does it end? When does it start? What do people fill the future with? Are they expectations? Are they hopes? Are they anticipation? How do you act on the kind of future that you imagine?

Do you just sail through time in an existential way, dealing with every day and not thinking about it? Do you create detailed plans for a certain point in the future or do you have expectations that things will keep coming around that you will act on in a certain way? There's a huge variation, and those variations are not even. Certain kinds of futures are imagined amongst certain groups of people and different kinds amongst other groups, or there might be technical imaginations of the future or certain cultural assumptions about what the future may be. And that means that it's become quite an important field for anthropologists to study, to think about what is happening when we're talking about the future.

Interviewer:

Obviously a big part of future now is wrapped up in our place in the world as humans. With that comes sustainability and what's happening with our climate. Can you talk a little bit about your research on that?

Simone Abram:

Obviously climate change is a huge challenge and it's something we think about as future oriented. Obviously now people are realizing it's present as well as in the future. But a lot of my research has been working with people who are trying to do something about it, if I can put it in that very broad way. Primarily, I'm working with engineers who are trying to change energy systems to become more sustainable. One of the steps that they take in that journey is to say, well, how do we plan for future

energy systems and how do we know what's happening in the energy systems we have today? The first step in that journey is usually to make a model of a particular aspect of energy use or energy generation or distribution, but some kind of model. Sometimes they're physical models, a model of a machine and how it works, maybe scaled down.

Sometimes they're digital models which try to mimic everything that happens in all energy systems, which is hugely ambitious obviously. A lot of my work has been finding out how engineers and economists and mathematicians and others do this kind of work, how they conceptualize a model and where the model starts and ends, and how they bring different kinds of models together into one system. A lot of the projects that I'm working on in some way are trying to integrate different either kinds of energy or different parts of an energy system. It might be how do electricity grids and gas systems interact, for example. That might be one area that's actually a bit more complicated than it sounds. It throws up lots of challenges. For me, one of the interesting things about energy models is that they're not always models of the future.

Sometimes they're models that are sort of out of time, so there might be models of an alternative now, or they might be a model of what would happen if we build a system in this way in the future, what results will it have? Or they might be just testing out, let's mimic the current system. If we tweak this, what would happen? If we tweak that, what would happen? What if we build a completely new system, can we model it? Lots of questions around what does it mean to model something, whether that's in the present or in the future. Actually really challenging exercises.

Interviewer:

I'm absolutely sure. And what I'm thinking as you're describing that is how collaborative versus competitive are as we work on those different models. How much does language interplay as you are working on these? I'm just thinking of the filters being potentially so different between different industries and how do you have to be the individual, for want of a better word, in the middle who's trying to pass out all the different filters?

Simone Abram:

I was part of a really big project for a few years, which had lots of different disciplines involved and people from different universities all working together to try and bring their different modeling experiences and modeling methods together. One of the things that was obvious right from the start was that they were using the same language but meaning different things. One of the challenges was to set up a kind of glossary at the beginning to make sure, do we actually all understand each other? Are we even talking about the same thing? Even the word model means so many different things that actually no, they weren't really talking about the same thing at all. One of the biggest challenges in that project and in all of these integrating projects is working out what we mean when we say certain things. Now it is interesting because if you're using a technical language, often that's much clearer because the terms are much better defined.

But actually recently when I was trying to write an introduction for an article, I contacted some of my engineering colleagues and said, "Actually, what exactly is an energy system? How is it defined?" And what really surprised me was that they all had their own understanding of what an energy system was, but they didn't have a core reference that they used for teaching. It's not set in stone, there's not a definition that everybody agrees on. That's not written down. Interestingly, the place where it's been written down and analyzed and thought about is in social science and studies of science and technology, and it's the sociologists and the other social scientists who have said, "Well, we think an energy system

means this." But I thought it was completely fascinating that the people working directly with energy systems, they just make an assumption about what it is.

Interviewer:

Yes. And then again, so you've completed your project and you're now trying to put it out into the world or talk about it so that people from a wider background can understand it. Then you have media language which can splice over certain pieces that have been so fundamental to your project, whether it's a word like environment, which can mean very different things to each different group, even to ourselves as the individual or the environment, as per the physical world or something else. Is that frustrating or extra challenging to anthropologists when they're trying to explain their own work to a different format, a different medium?

Simone Abram:

I think one of the things that anthropologists have always tried to do is to translate concepts from one society to another. Historically it will be going to another part of the world, understanding what people mean by nature or spirits or whatever it was. Then coming back home and explaining, of course, in recent, well decades really, that's not necessarily been the way that anthropologists work. All my work, for example, has been within northwest Europe. I did my PhD research in France, I've worked in Norway for many years, and in Britain, I'm not looking for a kind of unknown society and their different ways of thinking, but I'm trying to use that way of thinking. What we've learned from that to understand our colleagues, co-citizens, or basically people who I've been working with over the past few years.

But one thing you do learn is that something, a phrase or a term like environment, it's really not a universal term. There's a lot of fantastic anthropological research from, for example, the Amazon or from certain parts of Sub-Saharan Africa where you realize that people don't talk about the environment as a thing. It's not something outside of humanity. We're so used to thinking of ourselves being surrounded by an environment that we assume that that's just nature, but actually it's just the way that we have decided to think about it. I worked on a really lovely project a few years ago with colleagues in Norway and in Australia actually, which was called Performing Nature at World Ends, which is a bit of a big title.

What it meant was that if we think of nature as something that exists outside of us, then we're making a kind of category mistake because human beings are animals as well. We're part of this thing that we call nature. But if you talk to indigenous people in and around Australia and in the Arctic region, you realize that they don't think of nature that way. They don't even have a word which necessarily means the same thing. Those boundaries that we draw between ourselves and nature, they're not there. Then that means you have to rethink what you were assuming. Certainly when we are talking about what's that got to do with energy systems, you see that there are certain assumptions made, especially when you're building a model.

There are some things you don't include in the model because it's too complicated. Any modeler will tell you a model is not a one-to-one representation of the world. It wouldn't be a model, would it? It would be another world. They're always drawing boundaries. They're always deciding what not to include, what's relevant, what's not relevant. But if you have an assumption that the environment is something outside your system because that's what you think when you think environment, then your system is not going to reflect those interactions.

Interviewer:

Yes, you've created a hierarchy, you've created an other. You've chosen to do that rather than something else. It's become dualistic.

Simone Abram:

Yeah, that's right. And so if you think about when you're drawing up a model and you are saying, I'm going to just model the gas transmission system, for example, you will decide not to include certain elements. It might be you're not going to look at the way it interacts with water, for example, because that's not relevant to your model. You might say, well, I know that the data is good up to this degree, it's kind of maybe 80% accurate, or it doesn't cover that area. When you're writing up your model, you'll put that in the conditions of these are the limits of the model, but if somebody else picks up the model and integrates it into theirs or maybe talks about it in policy terms or tries to use it, those things often recede. They often fade away. You get this idea, especially when it gets into the news or even into building a policy, so the gas transmission does X, Y, and Z and missing out that fact, under these conditions.

Interviewer:

Context is all.

Simone Abram:

Context is all. exactly. It means that you can end up with things that look like facts that have lost their conditionality, and they shape both the way that, for example, you write a policy or the decisions you make about where to invest or how you use the energy that you've got, and that might not be the best thing. Actually you need to look much more closely at these processes of modeling and designing to find out where those uncertainties are and actually define them and describe them more effectively.

Interviewer:

Culturally within scientific exploration, are you finding it harder to get context around the language and words, or are you finding it easier and that we're more aware of this? What would anthropologists talk about amongst themselves when they're talking about the challenges of things like you say, receding or dropping off when they're so important that we know about them, whether we find out about them through mass media or on social, is it becoming trickier and if so, what do we do about this?

Simone Abram:

That's a million dollar question, isn't it?

Interviewer:

I know.

Simone Abram:

That's a great one. I guess as things get more politicized, it gets harder to discuss them in, I was going to say in a rational way, but in a kind of measured way. So if terms become loaded with either emotional baggage or political baggage, it gets harder to discuss them in a way that can take you forward. Certainly, I don't think that with the engineers and scientists that I've worked with that that's getting easier or harder. I think that they have a way of working, which is quite consistent, but there are certain assumptions which they won't go around. We can have quite open conversations about that as well. It's

not like it's a big secret or it's really problematic. I might say to them, so why did you make an assumption for your electricity projections that the market will always work in a certain way? They'll say, "Well, this is government policy at the moment. That's what goes in the model." Okay. So the model only is valid according to current policy. Okay, that's a limitation to the model, but it's well worth knowing about, right? That, in a way, still works.

The things that I think are harder are the more sort of insidious assumptions around what is an investment and who should invest, for example, that are not really modeling problems, they're political problems. So one of my interests in one of my research areas is around heat networks. How do we think about heat in its own right? And I have colleagues in the department doing really fantastic work in other countries around what is heat, what does it do, how do you feel it, how do you channel it? How do you turn it into, I guess a commodity?

I had a really great conversation with a colleague in who's based in Norway, who comes from Denmark and who's been doing a lot of research around heat networks in Denmark where they're a very common form of heating. His work is demonstrating that because Danish heat networks were nonprofit from the start, they were able to be very innovative and very inclusive, which goes completely against the political orthodoxy in this country, which says that only private industry is competitive and innovative. They found completely the opposite because all the surpluses went back into the industry so they could innovate with them. That's a very interesting finding. We think heat networks would probably be most effective and expand best if they're a nonprofit. But how do we start a conversation in this country now about nonprofit being a way forward?

Interviewer:

Yeah, but I suppose my outsider's response is, can't we point at the success that Norway had? Is there something in being able to point to Norwegian modeling, or is it way too late for that because of where we're at in public discourse?

Simone Abram:

One of the reasons I started doing research in Norway was because I couldn't understand why if you raised the way that Scandinavian welfare states work in Britain, people were incredibly dismissive. They all would say, "Well, that wouldn't work here." They could never give you a reason why.

Interviewer:

I was just going to say, what was the reason why. Is it pride? Is it culture about being British and not European or something?

Simone Abram:

Yeah, that's a really good question. And I guess probably because most of my work now has been in Norway rather than in Britain, it's harder to answer. But what I did find in, I did quite a lot of research on local government in Norway, and I did find that although of course it's not perfect, no society's perfect and there's loads of problems and nothing works right. But on the other hand, there seemed to be an assumption amongst most people that I met, that particularly local government is a way for us to help each other. It's our way of organizing our resources to the best benefit of each other. Whereas here in the UK, people assume that the state is some kind of distant other, which is trying to get something out of us. That totally changes the way that you interact and the expectations that you have.

Interviewer:

Yes.

Simone Abram:

It also changes the role of the politicians as well. So I don't think that people who dismiss Scandinavian welfare states were maybe thinking in such detailed terms, but there is a kind of exceptionalism, we're different. We're different because of whatever, oh, they've got oil. We got oil as well. They're a unified society. Well, we have chosen to distinguish ourselves in a different way. Also each of these Scandinavian countries is very, very different, extremely different histories. It's easy in a way to make big generalizations.

I think one of the really difficult things for policy makers is to know how to handle examples from other countries because nothing translates directly. Policy that works brilliantly in Norway may a complete disaster in the UK. So what you have to learn is the kind of principles and the conditions. Again, we're back to context, aren't we? Years ago I was in part of a really big program of research about policy transfer. The general overarching conclusion of the project was that there's no such thing as policy transfer. It doesn't, you don't transfer policy from one place to another. You're inspired by the idea, you take the evidence and you refashion it to work in your circumstances. There's so much evidence now about what could work about changing energy systems, about addressing climate change and what we've lacked so far, I guess, is a kind of political determination to get on with it in central government at least, certainly in local government, there's a lot more willingness to do things, I think, from my experience anyway.

There are lessons that Norwegians are learning from us around good policies and bad policies and good opportunities and how to reorient an energy system, not always in the right direction. And there are lessons that we can learn from them as well around what's the best way of accounting for carbon emissions? How do you persuade people to change their driving habits, for example? There is a lot to learn, and I think some of these international research projects are a really good way to share those lessons. It's our job in a way to make sure that what we learn from our colleagues in other countries gets explained properly when we are writing about it.

Which is why in this book, Energy Futures, we gathered 20 or 30 researchers from lots of different European countries, we held a three day workshop, and at the end we realized we're all talking about the same thing here. We need to write a book all together. We haven't written a chapter each, we've all written the whole book in groups, but still. What we've tried to do is put together lots of case studies, what's happening in different countries, how's the heat generated from data centers being shared locally, or in my case, how our energy model is thinking about what they're doing and how are they imagining the future?

Try and sort of see what that means altogether. The book is a way to explain lots of different aspects of how we think about the future and our future relationship with energy from different perspectives and with lots of case studies from different countries of how that might play out. And the different countries are not just European countries that are around the world as well. I guess if you're an academic, then you are always collaborating with other people because academia is all about generating knowledge for the public good. And so it's all about sharing knowledge and it's all in the public domain. More and more we're trying to make sure that all our publications are open access, so anyone can read them. You don't get a free book, but you get a free online book. That's really improved in the last even five years. It's hugely better than it used to be.

Interviewer:

Do you think the perception is of that though, that there is in the media for the lay person who's not as involved in science, do you think that that perception is also changing, that those of us who are interested in how science works know that there's that cooperation across borders, but sometimes that doesn't maybe translate, I suspect, across media or traditional domestic media that folks are really working together to try and find solutions?

Simone Abram:

I think if you set up conversations of debates, pro and contra, then you do get a sense of these things being binary, but actually it's not a good representation. Many of the things that we discussed, there's a lot of agreement, and then we compare different examples and find that there are new ways to think about things or we might have misunderstood something and we can think about it again.

I think it's a bit different from the sciences where you disprove something and prove something new. In the social sciences, I think we try to build on the knowledge that we had before and develop new ideas. A lot of it is around finding new approaches or new perspectives to understand things we might not have noticed before, or maybe we weren't listening to the right voices and we weren't hearing from the right people. We're always after new perspectives and new ways to think about sometimes the same old problems. It's not like the problems are new, but we can always understand them in new ways. The new ways don't necessarily mean the old ones were wrong, but they add to the breadth of understanding and the depth of understanding and the multifaceted way in which we can see the world.

I think that's hugely important. One of the things I do when I'm teaching is I teach people who've come from other backgrounds. I teach mainly master's students who've got degrees in anything really. It's very interesting working with scientists and engineers who have an experience a bit like the one that I had was, and they realize when we are talking about a theory, we're not talking about a scientific theorem, which can be proved. We're talking about theories, a kind of constructive thought, how do you think about this thing? And is there a new way that you can think about it that would give you new insight? They often have that ah-ha. Oh, is that what you mean experience? Where they realize that they're one way of doing thing in science, which was correct, actually. There's lots of ways of doing it, and they might learn something new by doing it differently. It's a very different way of approaching what you think knowledge is.

Interviewer:

Ways of knowing.

Simone Abram:

Ways of knowing, and those are infinite.

Interviewer:

What are you most excited about amongst the students that you teach and their ideas, and then in the field itself, particularly as you look at climate action, climate change, climate hope. You may have views on each of those descriptions.

Simone Abram:

What's been really exciting for me in the past few years is that all of this work on energy systems has been changing so rapidly. The things that we thought about energy systems five years ago, we've already changed our minds. Things are moving incredibly quickly, and you've been mentioning media

representations, and I often read the papers or listen to the paper and think, well, that was what we thought last year. We don't think that anymore. It is really exciting to be part of that change and to be able to be a person who says, "Well, hang on, just make sure you've considered whose assumptions you are taking when you're planning the future. And actually, should we stop and listen to some other people? Would you like to question that assumption before we take it any further?" Just to try and not slow down the rate of progress because desperate for change at the moment, but just to make sure we're not excluding people who will be impacted.

Because I think that if you are designing models, you're taking ethical decisions when you're deciding what to include in the model and what not to include, and those ethical decisions eventually will have an impact on somebody's lives. The really important thing for me to integrate anthropology and other social sciences into energy research is to include all those questions about who gets the benefits, who pays the cost, where's the justice in this process? And that more and more of the engineers I work with are increasingly, they're so conscious of that as an issue. They know that they need more ways to address that. They've been asking us to get involved in their research because they know that there are issues that they don't have their training to address, but they know that we might be able to help them with it.

Interviewer:

I love that. I was just about to ask, where are the blind spots? Where's the bias? What are the interesting pieces that you're seeing? If there are any examples there that you've picked up on that might be interesting. I don't want to put you on the spot with controversial questions, just if there's something...

Simone Abram:

Yeah, yeah. Okay. Let me give you an example of why it's important to think about whose voices you're listening to. One of the projects that I'm involved with at the moment is around integrated energy planning for redevelopment of sites. We've got three sites, one in Norway, one in Denmark, one in Portugal. They're concrete sites that are in the process of regeneration at the moment. And the plan is to make sure the energy system that is built there is most efficient and least carbon and will take us to net zero most quickly and so forth. One of the standard approaches when you're doing a project like this is to do a stakeholder analysis, but who gets to decide who the stakeholders are. Right? That's a really crucial question and often one that people don't really think about. They think, oh, well, we know who the obvious people are, but actually we really need to think about that so carefully.

Because as soon as you've decided who your stakeholders are, you've excluded a lot of people who might be affected by it. Just taking a step back and thinking about that is really important. But the other thing which I think has been really fun to think about and actually really quite important, so many projects start with an assumption or a set of questions around what they call the social acceptance of a technology. If you frame it as social acceptance of a technology, you are immediately assuming that the technology is fixed and the social has to change. You immediately get tied up with things like educational activities and make sure people understand, and you're trying to persuade people that your technology is right for them.

But what we, me and colleagues, have been trying to argue is that you should be starting at the other end. You should be starting with how people live, understand how they live, how will they use the thing that you're designing, what will it do for them? How might it affect their life? And change your design so that it fits them. Right? Quite an inventive way, coming back to terms of language again, was some Danish researchers said, well, rather than technology readiness levels, which is about how ready is

technology to be used, we're going to have societal readiness level, how ready is the technology for society? That totally changes the balance of power about how do you design a technology.

Interviewer:

Yes.

Simone Abram:

Just that little twist of term makes people think, "Oh, hang on a minute. How should we do this?"

Interviewer:

Because what if you have a completely different demographic or different demographics who really aren't ready and some people really, really are, and it's never going to be equal

Simone Abram:

You need to design your technology for the people who are going to use them.

Interviewer:

Yeah.

Simone Abram:

Quite often a technology is designed to solve a particular technical problem, and then you think, oh, how do we get people to do adopt it? But actually it always works better if you're thinking about those and involving those people in the design. We did a really nice project a few years ago working with an innovator, an inventor really, who had a particular idea about how to design floating offshore wind turbines for very poor communities who don't have grid access, or maybe they live on coastal areas where you can't get a road in, difficult to access. What we were able to do was actually go and visit some coastal communities in India and Bangladesh to talk to the people who live there, talk to them about their energy needs, about their expectations of technology and for example, how they use their fishing boats or what they catch and how they manage their catches, or whether women and men have different jobs and who would benefit from having more electricity or less electricity or how it would actually play out in practice.

We got really interesting results from that, and we talked it all through with the design team, and they completely changed the design of this technology. That even simple things like how big is the ladder and how wide are the rungs on the ladder. If smaller people are going to use them, it sounds a bit banal but even to that degree. Then all the way up to things like, well, if you're going to design a battery charging system for an offshore turbine, if you've got people coming to pick up those batteries in little fishing boats, then your battery basically needs to be a bit like a propane bottle so that they can manage them. You have to redesign your batteries, then you've got to redesign your charging system. It goes right back to the beginning. But what you come out with is a design that could actually be used by the people it's designed for.

I think that we were really lucky in that instance that the inventor had been to one of our conferences and realized there was a lot he didn't understand about these countries that he wanted to work with, asked us to commission people. We worked with an institute in Delhi, and we worked with a university Bangladesh to actually find out on the ground. Such a great project, really changed the design. I think the designers themselves and the engineers, they were really amazed things that they'd never thought

of, so brilliant people are doing their jobs, but there's a whole load of information that they didn't have and they didn't know how to design.

Interviewer:

The details first that really make the difference to the bigger, broader tropes that are important but the detail. What's interesting is you're talking about going back to more primal levels each time and stripping it back. You say it's a small thing, but actually it can be everything. The rungs on the ladder, how you carry the mobile battery on a boat. It's everything.

Simone Abram:

As you said, it's all about context. Anthropology is really putting things in context.

Interviewer:

Yes.

Simone Abram:

I can put its most crudely, understanding how people live in their everyday lives and the things that make a difference to that life.

Interviewer:

Yes. That's a lovely place to just think about. If you had to think of one more thing that you'd like to tell us about, for the people that will be in the audience over this next week, what might it be? Either something that you're excited about or something that you'd like to see slightly changing a piece in the industry. What might that be?

Simone Abram:

One of the things that really worries me is the way that our adaptation to climate change has been framed as a kind of personal choice, because you can only choose things that are available to you, and it also moralizes the choices that you make. So you might want to be vegetarian, you might want to draw an electric car, you might want to take the train. But if it's transformed into this kind of very politicized, very moralized thing, are you a good person or a bad person? That makes it really difficult for people to make proper choices. I'm interested in two things. One is how do we address the more structural issues, the choices that are available to people so that they can make more advantageous choices, both for themselves and for the environment? Do we enable people to think about the choices in a more constructive way, one that make them feel happy about themselves as well as about the world.

I think those would really help us to make rapid progress in responding to climate change and some of the issues that we're dealing with. If you live in a really badly insulated house and you haven't got the money to insulate it, there's no point people telling you that you're a bad person for that. That's not going to help anybody, is it? But if structures are available or grants are available, or schemes are available where you can choose to prioritize these things and it's made possible for you, then that's better for everybody. I know that sounds a bit more political, but I think it's about thinking about how people interact in the real world. We're not individual citizens. We belong to families, we belong to community groups, we have relationships with other people. We're not just dependent on ourselves for deciding how we live. We're social creatures. We have to decide things collectively.