

A Climate of Misogyny: Gender, Politics of Ignorance, and Climate Change Denial – An Interview with Katharine Hayhoe

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Abstract

In this interview, climate scientist Katharine Hayhoe discusses with Josef Barla and Sophie Bjork-James: the issue of gender inequality in the natural sciences; the toxic entanglement of right-wing extremism, sexism, and anti-science rhetoric in discourses on climate change; the far-reaching institutional and social consequences of the Trump administration's attacks on climate science research and advocacy; as well as the politics of ignorance and promising ways to rebuild trust in shared values and a shared world in the face of multiple planetary crises and challenges from climate change to biodiversity loss to the rise of far-right extremism.

Keywords: climate change denial; gender equality; hate speech; politics of knowledge

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A Climate of Misogyny: Gender, Politics of Ignorance, and Climate Change Denial – An Interview with Katharine Hayhoe

Josef Barla & Sophie Bjork-James

The following interview took place between Josef Barla, Sophie Bjork-James, and Katharine Hayhoe on January 13th, 2021. We met over Zoom for an extensive conversation that discussed how much the convergence of anti-feminism and anti-environmentalism impact scientific research and advocacy on climate change. The conversation was broad-ranging and inspiring. The interview has been edited for clarity and brevity.

Sophie Bjork-James: Thank you so much for finding the time to talk to us. It's thrilling to have you. Let us start off with a big question. We find it striking that many of the voices downplaying or denying the reality of climate change are also those who forcefully oppose gender equality. We are curious how you, as a leading female climate scientists have encountered this in your own work.

Katharine Hayhoe: Well, first of all there is the issue of gender inequality in the physical sciences in general. So, when you look at the earth sciences for example, which is my field, by the time you get to the level Full Professor, only 13% of us, according to most recent numbers I have seen, are women. So, it is already a bit of an uphill battle professionally speaking and then you have the whole rest of it [laughs]. That affects you professionally, if you are already one of the few women in a male dominated department, and then you have alumni calling the university to protest or you have complaints coming in to the chair of the department. If you were a man you might

weather those challenges more successfully than if you were a woman. And if you are a woman who spends a lot of time on outreach and engagement, which in most academic circles has – thankfully this is starting to change – traditionally been viewed as fluff. Then, as a woman, you have to prove yourself even more that you are a serious researcher and that you are a serious academic in order to not be judged on what they perceive as your dangerous lack of focus in doing outreach and engagement. There was a study a while ago that looked at, I think, postdocs in NSF. And they compared women versus men, and they showed something like, that women have to have like – I cannot remember exactly – double the publications to be taken as seriously as a man in the physical sciences. And then you start to do the outreach and engagement and as you just pointed out, research has shown, that climate denial is not exclusively but predominately a male dominated area and it is usually older White men, so it is kind of the whole package again. It is not just one thing.

Women conversely are more concerned about climate change. I am part of this program called *Science Moms* that just launched yesterday and part of why we did that was that it turns out that 83% of women in the US are worried about climate change. Eighty-three percent! So, that includes a lot of White conservative women on that list [laughs]. But the converse of course is that the people who are most opposed to the outreach and engagement you do are usually White conservative men who have a lot of other stuff going on. So, before I block anyone on social media – and I think this is a pretty good sample because I have a very large sample size – I almost always look at their profile before I block them. And here is what I see: I see sexism, I see anti-immigration and nationalistic post or tweets, I see adherence to right-wing politics in Canada, in the US, in Australia, in Britain, and in Europe. Every single time. They are pro-Brexit, they love Trump, they hate the Prime Minister of Canada, they love the

Prime Minister of Australia. It is like I can almost write their social media profile before I see and block them. And so, it is a 100% clear that there is this toxic package or bundle of right-wing ideology, nationalism, exceptionalism, racism, sexism, anti-immigrationism, and anti-climate-change that goes with it. That is what drives many of them. And part of why I get the vitriol that I get is because I tick two boxes not just one. Frankly, if I were a woman of colour, I would be ticking three boxes and I would suspect, that I would be getting it even worse. In fact, just anecdotally some of my colleagues, who are women of colour, who do not do as much high-profile outreach and engagement, they pretty much get almost as much as I do. So, I feel like there is some anecdotal evidence that that would be the case. And where does it come from? I read so broadly on things that have nothing to do with climate change because the root of the objections that I am getting has nothing to do with science or with climate change, but with fear. People feel like they are being pushed to the back of the line. The fact that being a White man has allowed them to dominate Western society for centuries and all of a sudden that is not enough anymore. They are scared, and they are angry. And so that anger with the fear behind it is what comes through in so much of what I get and what I hear. So, some of it is generic, but a lot of it is very kind of gender specific. Because what they are trying to do is, they are not just trying to discredit me as they would a man, they are actually trying to put me down.

I think of it like this: We used to have two cats. And the second one was a stray that we got brought in. The first one was very conscious of his place in the hierarchy. So, when they went to feed, they would both go to the bowl. The first one would put his paw on the head of the second one and shove his head down on the ground and hold his head down on the ground while he ate. And then he would let the second cat eat. And [laughs] I just see that as a metaphor for what is being done. Actually, I called the

second cat a 'he' because that is what we first thought he was when we found him, but it turns out that he is a 'she'. So, this cat was a 'he' and the second cat was a 'she'. And the poor Henrietta – we called her Henrietta – would just sit there with her chin on the ground with the other cat shoving her face on the ground while he ate. And then she ate. The first cat would sleep with its head on the pillow while the second cat was only ever allowed to sleep at the foot of the bed. If she tried to crawl up towards the head of the bed, she got what was coming. That is what is happening. We are all the second cat [laughs].

Josef Barla: Right, women are still underrepresented in the natural sciences, and the climate sciences are no exception here – despite the important work of people such as Heidi Cullen, Tamsin Edwards, Joanna Heigh, and not to forget Eunice Newton Foote who was not only an early women's rights advocate but whose experiments with carbon dioxide also led to the description of the workings of Earth's greenhouse effect. Do you think that gender imbalance remains a problem not only in terms of inclusion and equality but also with regard to how and what knowledge is generated? And do you feel that things are moving forward with a new generation of female scientists, scientists of colour, and Indigenous scientists?

Katharine Hayhoe: In general: yes! We know that the greater the diversity of perspectives, voices, and life experiences we bring to the table the more robust are the solutions that we can come up with – and climate change requires solutions. So, we require all voices. I personally tend to look for experiences where I have a chance to work with Indigenous voices, where I have a chance to work with other women, where I have a chance to work with people who have expertise in different fields, not just the

physical sciences. Because that is where we see the most innovative work being done and it is traditionally very undervalued by funding agencies. So, it is really difficult to get a lot of this work actually funded, but I feel like that is some of the most important work. And when I read, I try to read as broadly as I can. I have been doing a deep dive into Indigenous knowledge and into the intersection between Indigenous beliefs, sustainability, and Christianity too, which is really interesting. Just as an example.

I would say that I had a very interesting experience just yesterday. Yesterday we launched *Science Moms*. And we launched it because, again, 83% of women are worried about climate change, but they feel like they do not know enough about it and they do not know what they should do about this. So, we are partnering with this fantastic set of advertising experts who got all the funds to do all the nice stuff with advertising and then we scientists are just donating our time to say that: ‘Hey we are moms, and we are scientists, and, you know, we are struggling with the same things you are. You know... Tracy has a new baby at home, I have, you know, a kid on Zoom all the time where we just... you know, this is life.’ And immediately we had allies pushing back and saying, ‘Oh fine, *Science Moms*, where is *Science Dads*. Are you saying *Science Dads* do not matter? Why are you just reaching *Science Moms*?’ I had to think through this and articulate this to myself and I was just processing this last night but finally I realized: It is because all of the science messengers are men. You have Neil deGrasse Tyson, who is alive and who is Black – that is good. You have Stephen Hawking: White, dead. You have Carl Sagan: White, dead. You have Bill Nye: not a scientist, White. You have Brian Greene: White, alive. Over in the UK, you have Sir David Attenborough: actually, not a scientist. He has an undergraduate degree, that is it. Also: older, White man. So, you do not have any messengers to moms who moms can

identify with. And it is really important on climate change to bond over shared values. But our current science and environmental messengers cannot bond with moms.

Josef Barla: What might be the reason for the fact that female scientists are not that visible? I mean just recently, the First Lady of the United States, Jill Biden has been accused of not being a real doctor despite that she received a Doctor of Education, right? So, it seems that in a certain sense the expertise of female scientists is still dismissed by male commentators and sometimes even by colleagues.

Katharine Hayhoe: All the time. *All the time.* Our skin has to be twice as thick, our CV has to be twice as long, and our reputation has to be twice as high just to be seen as equal. And it is really interesting because that relates back to denial. A lot of the attacks I get, especially from people who self-identify as Christian – that is also a very common theme in their social media profiles – they attempt to reject my expertise. So, one time there was a pastor from St. Lewis who at least was not calling me four-letter-words, but he was basically saying ‘You are not as eminent a scientist as Dr Bla Bla Bla’, who is one of the five people with legitimate PhDs who reject the reality of climate change. So, he was saying you are not as prestigious or as prominent or as whatever the word is as Dr Bla Bla Bla. So, I decided ‘Ok’, I said ‘I am going to go for this.’ So, I said ‘Ok, so what measure do you use to measure prestige?’ He said ‘Oh, so he is a research scientist at this university, and he has published papers.’ So, I said ‘Ok, I published twice as many papers as him. I am an endowed professor at a university as opposed to just a research scientist. And I have received these and these scientific awards and recognitions and he has not.’ And I just sat back. Well, of course that was not the answer, because that is not how he was viewing prestige. He was talking about a White

man who shared his political views. So of course, that did not work. But it was really interesting that his approach was to try to denigrate my prestige. That was his go-to approach and that is the go-to approach of many people. And it would be interesting to talk to, say, Michael Mann, who gets a very similar level of abuse as I do and ask him to what extent. My sense is, he gets a lot more direct insults but not as much questioning his expertise, whereas I get a lot of questioning my expertise and I get quite a few direct insults but not as much. I think it would be interesting to look at the difference between that.

Sophie Bjork-James: It seems like there are orchestrated attempts to target women scientists, journalists, and activists. And so, I am wondering what strategies have you developed to deal with these issues? I know it is intimidating for a lot of people especially to those with a bigger public profile around these issues. Because it can open them up to being targets more.

Katharine Hayhoe: I had to develop my own coping mechanisms, my own strategies, and I feel like I should maybe formalize them at some point. It was trial and error because I could not develop them until I was already emerged in the problem. I had to figure out how to dig myself out. So, approach number one was when I realized that my department was taking a very dim view of my public persona. That was when I realized, I have to... Actually, I went, and I looked at every single colleague's CV and I made a list of what I had to do so that I was more than them. And even still it did not quite work. I was booted out of my department and had to go to political science because of that. Even though it turned out I was the most productive in terms of grants. I was bringing in the most money in the department. So that was one coping strategy.

So now what I do is deliberately look for opportunities to review tenure cases of women who I know are involved in outreach. And men too. And I never turn down an invitation. If I feel like somebody is doing a really good job in outreach, I will definitely review their tenure case and I will make sure I make the strongest possible case for them to be promoted. As long as they have – you know, obviously – the scientific credentials. But I speak very strongly to their outreach. So, number one was just to make sure that I had the academic credentials that I needed to, but number two is: I had to sit down, and I had to make a conscious decision. I have to remind myself of this decision on a regular basis; that what people who do not know me say about me, that is not me. You know what I mean? My identity is not based on what they think about me. I consciously give up the right to be correctly represented in the public sphere. Because, if I chase down every single person who said something false about me, who slandered me, who misrepresented me, who lied about me, that is a full-time job. And I would never succeed. So, I have consciously given up that right. If somebody slanders me, like there is a couple of prominent scientists who have actually made a pretty regular practice of slandering me and I have shown my husband some of this stuff. And he is like, ‘That could be legally actionable.’ [laughs] And I am like, ‘It is just not worth my time.’ If I want to be effective, I just have to let that go and so [laughs and sings]: ‘Let it go, let it go’. You almost have to sing that to yourself. That is the Frozen song, in case you are not familiar with it [laughs]. You have to almost sing that to yourself on a regular basis because you cannot be effective if you are not willing to just let it go. So, developing kind of a healthy sense of, ‘Oh that person called me a blank blank blank. It is sad. And it is actually kind of funny. So, I am just going to let it go.’ That is really important.

And then setting boundaries: I do not ever read the comments. I block people right away if they cannot converse in a civil and constructive manner on social media. I do not respond to all the dismissives, who are trying to draw me out and fish for an argument. I do not debate dismissives. I just do not. I feel like, ‘What is the point?’ I have drawn some very hard and fast boundaries over what I do and do not see; and what I let myself see. Over what I do and do not do. I have taken my e-mail, my phone number, my address of the web for safety concerns as well as for people contacting me. My website e-mail goes to my assistant and she knows what not to send me. So, I have had to set these very conscious boundaries in order to protect myself. And they include for example taking social media off my phone, so I am not looking at social media at night when I am with my family.

Josef Barla: I think, we all agree on that a lot has happened since Donald Trump’s inauguration in 2017: Institutions have been restructured, funding discontinued, and industrial magnates with close ties to oil and gas industries have been installed in such sensitive places as the EPA. Would you tell us a bit about the obstacles you have been experiencing in your own research over the past few years. Does such a political environment make it particularly hard to do climate research?

Katharine Hayhoe: It does on all levels. So, first of all what Trump did was: He normalized harassment. It is like he just handed out a get-out-of-jail-free-card to everybody who wanted to harass women online or even in person. He normalised it. And I saw the impacts of that. People were significantly emboldened. And they were not different people. They were the same people. But it is like they felt like: ‘Oh, it is

ok: The few social strictures that there were have been lifted and if he does it, I can do it.’

And then there were the professional repercussions which do not really have to do with gender at all. They were just the fact that so many of my federal colleagues felt trapped, muzzled, or even marginalized, or had to quit. And I work with federal scientists quite closely. Many scientists felt like they had to self-censor on grant proposals. I work with a department of the interior centre and so our funding kept getting threatened to be cut year after year. Some cases they were going to axe the whole program, some cases they were just going to slash their budget. So, every year there was a new stress that had to be dealt with. And when you are dealing with stress, you cannot deal with what you are supposed to be doing. You cannot do your job. The levels of stress in doing science across the board were increased to the point where it would really be interesting, I have not seen the data, but it would be interesting to see how much less effective scientists were because they had to spend so much of their time dealing with this stress. And some of it would actually be... some of it would just be mental, it just makes you less productive but some of it would be physical in terms of: You have to have conversations, you have to advocate for things you have to deal with not having something funded, you have to... I mean, the cost I think is incalculable. I do not think you can even put a dollar sign on the cost. And then there is the moral. So many people left, so many people did not join the federal service. There must be entire departments that are just gutted.

Josef Barla: The *March for Science* has been criticized for ‘politicizing’ science, mainly but not exclusively by conservative and right-wing commentators. Now we know that the idea that science could be entirely value-free is an illusion. However,

‘politics’ or ‘politization’, here, does not refer to the fact that science is a social practice, but rather claims that scientists would have their own agenda. Would you say that there is a fundamental difference in the trust in science and in scientific facts according to political affiliation?

Katharine Hayhoe: A thermometer is not conservative or liberal, it does not give us a different readings depending on politics or ideology. But today people wear such thick partisan glasses, that it looks like it is giving you different readings even though it does not. Number one. But second of all, and this is most important, I think this sort of answers the question: What you do with the information science provides is very political. I, as a scientist, would advocate for sound science informing any decision by any party at any point in the spectrum. But the way that somebody from the left-hand versus the right-hand side of the spectrum could react to the same information could be very different. And that is legitimate. Because you cannot say there is objectively one perfect policy. But you can say that the Earth is warming and both policies have to take into account the fact that the Earth is warming. So often though I feel that scientists are either naive about the political implications of their work, or sometimes even deliberately blinding themselves because it absolves them of responsibility of thinking of the thorny ethical issues. And I think that that is a bit of a failure on the part of the scientific community. One that for example Carl Sagan did not suffer from. But then he was not elected to the National Academy of Sciences because of the Sagan Effect. He did too much politics and outreach, and so he was not seen as a pure scientist even though his CV was just as good as other members of the National Academy. But at the same time, when people would say to me, ‘Oh, did not the *March of Science* politicized science?’ I would say, ‘No, the politicians already politicized it. And they already

politicized it in the US by rejecting it. By calling scientists onto the carpet and by questioning solid scientific results in the name of political ideology. The politicians were the ones who did it. That ship has sailed.’ And I have definitely had people say, ‘Oh, that is politicizing the science.’ And my reaction to that is very – what is the word I am looking for – I have a very strong reaction to that because, yes, it has been politicized, but it was not the scientists who did it. Now you can go back, and you can look at eugenics. And that is a place where some of the scientists did. And that is where racism and sexism all comes in together because, right, they did not want certain people to reproduce. And so, the whole idea of the tragedy of the commons: These economists, William Lloyd in the eighteen hundreds and Garrett Hardin in the 1960s, both of them who were talking about the tragedy of the commons – which is a really good metaphor for climate change – they actually espoused selected breeding and population control. I mean there is a very ugly history in that area between science and genetics and some really awful politics. So, there you could argue definitely that there were some scientists both social and physical who went too far the other way. But in climate change I would say very clearly it is not the scientists who do this.

Josef Barla: So how can ‘we’ fix the mistrust in science and scientific facts? If it is not so much a lack of knowledge that feeds anti-science attitudes and climate denial in specific, then what could be the deeper lying problem and how can ‘we’ address it?

Katharine Hayhoe: I feel like younger people are getting it at a much better level today. We are in the middle of a huge cultural revolution. I know that is not a very pleasant term. In terms of the historical significance. But I think that is what is happening, and I think that we have seen a lot of positive signals coming from younger

generations, even conservative ones, of recognition of the fact that we live in this global environment and we are all connected to each other and we can no longer pretend that my actions do not affect somebody else's. And the internet is part of this. This is the first generation that has grown up on the internet. Because their brains have grown up on the internet, I feel like they are a lot more globally connected than people have been in the past. And I think that that might be a piece of the solution. But unfortunately for climate change it is not happening fast enough. So, what I do is I do not tell people they should trust in science. I validate people's identities at the deepest possible positive level – if that makes sense. I am not going to validate someone's identity as a racist descended from a bunch of KKK-members. But I would validate somebody's identity as a parent, as a Christian, as somebody who is rooted and grounded in a specific geographic location and feels very strongly about it. I would validate somebody's identity as, you know, being in the military, their sense of being protective, or being a businessperson, their sense of being entrepreneurial. Validate somebody's identity to the deepest possible level that you can on a positive manner and then show them how issues – not science, but issues – are directly connected to who they already are. For example, on climate change, what I say is, 'You already care about it. You just did not know. Because who you already are is the perfect person to care. And once I can connect for you why you as a fill-in-the-blank would be worried about climate change, it becomes an even more genuine expression of who you already are than you were before.' And that is what everybody wants to be. They want to be more of who they are. They do not want to change. They are scared of having to change.

Sophie Bjork-James: That's an important point, to start with the places of possible connection and interest.

Katharine Hayhoe: Right. Because, once they accept the reality of the issue then they accept the science. And in fact, my colleague John Cook has a really good story on this. John Cook is the founder of skepticalscience.com and he went back to school. He was originally in solar physics. He went back and got a PhD in cognitive psychology to understand climate denial. And his motivation was his dad. Every time he went home for dinner his dad would be like, ‘Well, John, there is more polar bears now than there ever have been. So how can you say that the planet is warming?’ And he would present him with the science and his dad would just go off on a different tangent, right?! So, what happened with his dad was, John found that there was this huge rebate on solar panels in the rural area where his dad lived. And his dad’s identity is a fiscal conservative. If you could pinch a penny, his dad would pinch it twice. So, he showed his dad this thing and his dad got really excited and started to investigate how much money he would save. So, he got the panels and he saved even more money. So, every month he would send John a report of how much money he saved. He would go around boasting to everybody he knew about his solar panels. Because they reinforced his identity. And they made him an even better version of who he was. And then a couple of years later, John was having dinner with his dad and in the course of conversation John mentions something about climate change and global warming and his dad said to him: ‘Oh yes, that is true, and I have always thought that.’ And John said he almost fell off his chair. He is like... he has dozens of occasions when his dad said exactly the opposite. So not only did his dad agree with the science now because it was part of his identity, but he revised his past history. So, you do not start with the science. The science is the end goal. And you achieve the end goal by connecting people’s identities with an issue. And that is stunning.

Josef Barla: In closing, is there anything else that you want to share?

Katharine Hayhoe: I think I would want to reemphasize the idea that denial of science is not the problem: It is just the symptom. And if we try to treat the symptom without treating the problem, we are not going to end up with a sustainable long-term solution. And I feel like too often scientists have been a little bit naive on this. We think that the deficit model applies and that if we just provide more science, people will change their minds. And we do not recognize that there is a lot more to it. I mean you could have every Nobel Prize winner in the world deliver a yearlong course to somebody and if their ideology and identity conflicts with what the Nobel Prize winners have to say, they will not accept it. And a lot of those people do not even realize it themselves. It is just not like they consciously recognize that. So, we just go on face value. We go on what people say. So, I feel like this tension, the tension between science and politics and even the sort of surface level the tension between gender and science and politics goes a bit of... a bit... one level deeper in the onion, but then there is like a few deeper levels to go to really unpack where this comes from and how we can fix it. Because you started to get to fixing it, Josef, but fixing it starts with going all the way to the bottom first, I think.

Sophie Bjork-James: Yeah, right. Like all of these histories and especially, I guess, in the US-context, right? For example, the way that like religion and politics have been so enmeshed for so long. Well thank you so much. This has been just really fantastic and enjoyable. This has been such a great conversation.