



## Episode 555: A Climate Heretic Speaks Out

Guest: Judith Curry

**WOODS:** One of my astute listeners wrote to tell me that I had to talk to you, that you had a very interesting story, and I'm sorry to say I'm so uninvolved in the issue of climate change – I mean, I'm just the average American in that respect; I have a working knowledge of the issues at stake, but that's about it. I'm sorry to say I was not familiar with your situation and your work, but now I am. I have been briefing myself. I have been reading. I've been reading interviews and blog posts and articles about you. Wow. Very interesting what's going on with you, especially since the so-called "Climategate" fiasco of – I guess was that 2009?

**CURRY:** Yes, late 2009.

**WOODS:** That was a situation where some emails were made public, and it looked, to the general public anyway, as if within the, let's say, climate change community there was a – well, maybe less absolutely fidelity to scientific truth than we might hope for. And other people said, oh, it's been exaggerated; there really wasn't anything there, but my understanding is that in the wake of that, given that the general public was a little bit wary after seeing this sort of thing, in trying to do some damage control you reached out to some people who were scandalized by this, and this began the process by which you have been increasingly dismissed as a heretic in the whole matter of climate change. Am I getting the chronology right?

**CURRY:** Pretty much. Yeah, my concerns were that these emails revealed some very poor behavior, in some instances what I would call unethical behavior, and I was making a call to scientists, we need to do better than that. And so I was trying to say, well, we need to apologize and figure out how we're going to do better, and that was really perceived by many scientists as being a traitorous thing to do, which (laughing) made me even more concerned about what was going on in the climate science community.

**WOODS:** So you wound up talking to people who were skeptics of climate change, and skeptics of climate change could be people who don't believe the climate is changing or they don't believe that human behavior has anything to do with it. I mean, there's a wide spectrum of positions that people can hold, some more tenable than others.

**CURRY:** Well, the people that I was communicating with were people, very technical people who, many were publishing scientists and were active in the blogosphere. The one that caused the most ire was Steve McIntyre, who's a Canadian blogger, a former mining engineer who became interested in the hockey stick and started poking holes in that. He's quite a good mathematician and statistician. So the people I was engaging with were people like that, people who were digging into the data, had technical backgrounds and good mathematical skills. So this wasn't just, you know, people who were wildly unknowledgeable and, you know, had a religious or a political position on it, but who were concerned about the quality of the data and how it was being analyzed. And I thought it was important that we should engage with these people and see what they had to say, and again, that was regarded as a traitorous thing to have done.

**WOODS:** Now, you — so a word like "traitor" has been used; a word like "heretic" has been used. Now, as a person who's a non-scientist, as I say, I wouldn't try to jump into the science of the matter, but my skeptical instinct is aroused when words like "heretic" and "traitor" are thrown around in scientific discourse. That's when I feel like something's going on here that's not quite, you know, Francis Bacon and pure collection of data.

**CURRY:** Exactly. This behavior and the Climategate emails triggered a lot of people's BS detector. You know, they might not have been paying attention prior to this, but all of a sudden they started paying attention. And Climategate and the reaction to it actually brought a lot of other technical people outside of the climate field into the field, starting to look at the data and even the model in some instances and raising critical questions. And some of these outsiders, if you will, went on to publish papers in the technical peer-reviewed literature. So there's like a new cadre of people in the game, you know, that are outside of the control or the tribe of, you know, the academic scientists who were trying to keep control of the subject.

**WOODS:** Can you tell us exactly what is your so-called heresy in the minds of, let's call them the enforcers of, you know, orthodox opinion?

**CURRY:** Well, what I did back in 2009 is I raised the issue that the IPCC and the consensus scientists were overconfident in their findings and weren't properly taking into account uncertainty, both in their assessments and in their communications to the public, you know, the media and policymakers. So I raised that concern. And people didn't like that at all.

**WOODS:** That's it?

**CURRY:** Pretty much. That and talking with the skeptical bloggers. That's pretty much — and I started digging into aspects of the science that I saw the IPCC was overconfident, and the one that I focused on early on was whether humans were the dominant factor in causing the warming since 1950. How well did we know that? I found what I regarded to be some circular reasoning. And the climate models were telling us, well, it's 100%. Okay, but I don't think that you can defend that statement.

And so that — you know, this is the kind of thing that should be discussed and debated under normal circumstances, but because of how politicized all this has become, making a statement of scientific uncertainty is regarded as a political statement, you know, along the merchants of doubt meme. Like, anybody who's questioning this is in the pay of big oil and is therefore biased and that there's this automatic connection with anybody talking about uncertainty in climate change that they must be in the pay of big oil, which is absolutely ludicrous.

**WOODS:** Among the general public, most people have been I think intimidated by this 97% statistic that is just thrown around *ad nauseam* to shut people up. As far as you know, what's the origin of that statistic, and what does it mean?

**CURRY:** Well, it doesn't mean very much. President Obama's been tweeting this and it features prominently on his website. The one that President Obama's been tweeting is a study where a group of individuals categorize abstracts from scientific publications and put them in two piles: whether they supported the consensus and whether they didn't. Most papers, it's hard to tell, because that's not really what they're talking about, but the people who were doing the categorization, not only were they untrained, but they were also associated with an advocacy group.

But some of the papers that they included in as supporting the consensus were ridiculous. Like a paper about the adoption of cookstoves in India, for example, was a paper that was categorized as supporting the consensus. So it was a completely ludicrous paper that has been widely criticized in the published literature as well as on blogs, but people still talk about it. And it's a very vague consensus, like, "Climate change is real; climate change is happening." Well of course climate change is happening. The climate has always changed. Nobody disagree with that. By that token, I'm a member of the 97%. So it's a meaningless statistic.

Now, if you actually surveyed climate scientists, and you ask, you know, are humans causing most of the warming, well, depending on exactly how you ask the question and who you ask, you get agreement with that statement somewhere between 52% and 85% of the scientists. So there's a majority who do agree with that, but it's nothing close to 97%.

**WOODS:** What do you think the trend has been over the past, say 10 years? Is it toward more skepticism of this claim, or is it toward more consensus?

**CURRY:** It's hard to know. I would say probably more skepticism, but the surveys haven't been very good until very recently. So I think there are increasing challenges to the consensus position, but it's hard to know. But you now, in a very complex, uncertain subject like human-caused climate change, how many people agree versus how many disagree I don't think is very meaningful. I mean, there's a lot of disagreement, and there's a lot of uncertainty, and you just need to factor that into however you're going to decide to deal with the problem.

**WOODS:** I'd like to ask you about a few particulars. Senator Ted Cruz has been a bit of a lightning rod on the subject of climate change, and he had a now notorious interaction with the president of the Sierra Club — I don't know if you saw that on YouTube —

**CURRY:** Yes, I did, yeah.

**WOODS:** And the president of the Sierra Club had to keep asking staff to answer whether he knew certain things. "Do you know what the term 'the Pause' means?" And he has to turn to them, and then he turns around and says, "Yes, I do." (laughing) Well, okay. You'd think you could answer that question yourself. But what Cruz kept saying was that the satellite data over the past 18 or so years shows no significant warming, and the response from the president of the Sierra Club was, "I side with the 97%." Well, the 97% do not deny the satellite data, so that's completely irrelevant, but what I want to ask you is — I don't know what your opinion even is of this, but what I've read is that the satellite data is not the beginning and the end of the question. There are other measurements of the warming of the planet that reveal other answers, so how do we figure out what the correct one to use is?

**CURRY:** Well, you have to look at all of them. How the atmosphere responds is different than the surface is different from the ocean at various depths, so looking at all that data helps you understand how heat is being transferred through the climate system. And by looking at all the different data sets, it gives you a sense of the uncertainty, how well we can even measure any of this stuff. So you know, I'm in favor of looking at all the credible data sets, and again, it brings up the uncertainty issue. I mean, if the data sets are disagreeing in major ways, it means there either has to be some physical explanation for that or there's more uncertainty in these measurements than the scientists have characterized.

**WOODS:** Is there anything to the idea of the Pause?

**CURRY:** Oh, absolutely, absolutely. There's been a slow-down in warming since, depending on which data set you look at, since 1997 or 2001. It's a little bit different for some of the different data sets, but there's a slow-down. There's one data set that doesn't show a slow-down, and that is the recent NOAA reconstruction of the surface temperature data set. This came out last July and was very controversial. So trying to understand why the NOAA data set is different than the other data sets is ongoing, but again, to me this highlights that the uncertainty in all of these data sets is greater than people are currently assessing.

**WOODS:** But if the worst case scenario is an almost apocalyptic one, then how do you respond to people on the extreme end of the policy debate who would say, given that the stakes are so high, we can't afford for the data to wait to clarify themselves? If we have some data pointing toward the possibility of significant warming, then we've got to take action now, rather than wait 50 years and say, oh, you know what, it is significant warming, and then it's too late. How do you respond to that?

**CURRY:** Okay, well, two issues: let's assume for the sake of argument that the climate models are right and that the only way we're going to slow this down is to stop emitting fossil fuels. Well, you have to ask the question, is the right strategy to impose regulations regarding – and to get people to use existing technologies, mainly solar and wind, that aren't up to the task – you know, they're not going to replace fossil fuels and nuclear power – or spend your resources on developing new technologies. I mean, is the current regulatory environment basically slowing down energy innovation? I suspect that it is. And the cure could be worse than the disease. If rapid transition away from fossil fuels damages economies or prevents the developing countries from developing, well, then we're more vulnerable to the ravages of climate change. So is the best defense to really develop economically so we can afford to protect ourselves? So there's all these questions, even if you believe the results of the climate models.

And even if you do, all these commitments that have been agreed to and made, you know, for the Paris Conference of Parties meeting that just concluded yesterday, even if those agreements are actually met, which I find very dubious, is that they would only prevent a fraction of the so-called dangerous warming by the end of the 21st century. Most of the benefits of those reductions would be seen in the 22nd and the 23rd centuries. It's not going to help anything or much at all in the 21st century. So if this is really a big problem, should we be spending our resources on figuring out how to deal with the problems that we'll face in the 21st century? So these are all the dilemmas that you face, even if you believe the climate model projections.

Okay, and then if you don't believe the climate model projects, then that opens up a whole host of other issues. So there's no silver bullet solution. I mean, thinking that this treaty is going to solve anything or that wind and solar can actually do the job, I think we're fooling ourselves. So if this really is a problem, we don't have solutions that can deal with it right now.

**WOODS:** Judy, I'm curious about the evolution of your own work. Suppose I were able to read scientific papers, and I dug up something that you had written, let's say, 20 years ago. How would it be different from something I might read from you more recently?

**CURRY:** Okay, the papers I was writing 20 years ago dealt with physical processes of a small part of the climate system, like the albedo of Arctic sea ice or the reflectivity of clouds or you know, things like that. It was dealing with little pieces of the physical system. So nothing in what I was writing, say, prior to 2010 was grappling with the big issues, like what is causing global climate change or what will the 21st century climate look like. I mean, starting in about 2005 or so, I started looking at natural climate variability, particularly the multidecadal oscillations, so I started that line of research around 2005. And again, nothing that I was publishing back then really raised anyone's hackles, but it laid the foundation for some of my more recent work, which has focused on natural climate variability.

**WOODS:** All right, so given that you hadn't been writing about that until relatively recently, did you nevertheless have strong opinions on it, or did that come only when you really started digging into it?

**CURRY:** No, I didn't have strong opinions. In fact, prior to Climategate, I felt that the responsible thing to do was just to accept the consensus of the scientists. Don't listen to what scientist says; look at what these thousand scientists have to say after years of careful assessment. So I bought into that argument until I read the Climategate emails and I became aware of the sausage making and the borderline unethical behavior that went into creating and forcing and even bullying people into the consensus. So I said, okay, I need to look at these things from scratch and do my own thinking on these larger problems, which is what I've been doing for the last five years.

**WOODS:** How have you suffered professionally as a result of all this? I know you've been called names and there's a lot of negative press attached to your name. You're a tenured professor, so you can weather some of this, but what have been some tangible effects?

**CURRY:** Well, I am a tenured professor, so I'm not at risk of losing my job. After I stepped down from Chair of the School of Earth and Atmospheric Sciences I had in mind to seek another administrative position. While I got a lot of interviews, it quickly became apparent that I was unhireable, largely because of the controversy surrounding me. And if you Google "Judith Curry," you see all of these outrageous things on the first page: "Judith Curry abandons science" —

**WOODS:** Yeah, but see, as soon as I saw that, because I've been attacked in the same way by people just as hysterical, right away I was sympathetic to you. I thought, I know exactly the type of person who launches attacks like that, who can't just say we're having a sober, scientific disagreement. It has to be Manichean, the devils versus the angels. These people are incapable of rational discussion.

**CURRY:** Right, so if somebody's looking to potentially hire me, they see all of this and go, oh gosh, we don't need this baggage.

**WOODS:** Right, and they don't even care to adjudicate it. They don't want to deal with it.

**CURRY:** Right, and you know, everybody wanted to interview me. I've got a lot of good ideas, (laughing) and I've got a lot of things to offer, and the headhunters thought I was great, but at the end of the day, nobody was going to offer me an administrative position. So you know, that's no particular big deal. I don't have a problem getting my papers published. Getting grant proposals funded for anything other than something that is dotting Is and crossing Ts — you know, I can't get anything meaningful funded. And I basically had to change my peer group. (laughing) I've redefined my peer group. I'm networked with a broader group of scientists from a range of different fields, including economists and philosophers and whatever, and people from varying walks of life. And so I have a much more interesting network now that I've sort of stopped

trying to, you know, be accepted and judge myself by what my academic peers think of me. So in some ways, my current activities are more interesting and rewarding, but by conventional academic measures, you know, I've killed my career. But you know, I don't care. I'm enjoying myself, and I think I'm having an impact, and I'm doing interesting things.

**WOODS:** Yeah sure, absolutely. Now on the other hand, one thing that people would point to and say, well, you're just making things worse on yourself is you have accepted invitations from Republican congressmen to testify before Congress, saying things that the people attacking you would not want you to say. So you're just adding fuel to the fire by doing that, they might say.

**CURRY:** Oh, I'm sure they do. But that's ridiculous. I'm interested in getting the best information out there, highlighting the uncertainties, and bringing some alternative analyses to the table, to policymakers, the media, other academics. So I think it — I'm trying to open up the debate, both on the science and related to the policy options, and so testifying in front of Ted Cruz's committee, you know, I think extends my influence in that regard.

**WOODS:** I want to ask you just one last thing before I let you go. If people who are critical of you for your views and they attribute bad motives to you, they can't think of how you could hold your views honestly. It must be for some venal reason, and they can't find anything in your funding, so it's entirely speculative, or who knows what they think. But it can't be that we just have an honest disagreement over interpretation. That is just ruled out by a lot of people. Now on the other hand, what would you say is the primary motivation behind them? Are these people — they just have a pure scientific disagreement with you and they are just badly behaved people, or do you think they are motivated by their own political motivations?

**CURRY:** Okay, well anybody criticizing me, I'm just behaving like a scientist. I'm questioning the evidence and challenging and reexamining conclusions. If that doesn't define the job of a scientist, I don't know what does. So the people criticizing me have some sort of agenda that goes beyond science, and you know, there's many complex reasons for that, their own personal/political preferences — there's lots of things reinforcing the consensus from within the profession: you know, funding, recognition, their authority and their seats at big tables. So it's a —

**WOODS:** All right, that provokes another question. I'd like to know if this experience has changed the way you look at, not science in the abstract, not pure science that's absolutely disinterested and interested in pursuing only the truth, but science as it's actually practiced under modern regimes in the western world. Is it not exactly the pure, dispassionate pursuit of the truth that the average layman is told that it is? Is it a more complicated picture? Have you drawn some conclusions about that?

**CURRY:** Oh, it's a very complicated picture, and that really relates to the topics that I've been writing on about the last five years about expertise and what influences people's thinking from within their expert domain, how people become biased, the

interface between climate science and policy, and even the philosophy of science as it relates to climate science. So these are things that I've been investigating over the last five years, and it's a very complex issue, and I'm very gratified to see more social scientists and philosophers become engaged in this study, although many of them bring the same kind of baggage to their investigations that we see among client scientists, so how to have objective people looking at this whole issue remains a considerable challenge.

**WOODS:** Well, I hope people will check out [JudithCurry.com](http://JudithCurry.com). I'm going to link to that at [TomWoods.com/555](http://TomWoods.com/555), where I will also link to a couple of posts by you that give people a big picture overview of what you've been saying and what the consequences have been. It seems to me like there's a really good book somewhere in all of this. Is that on your radar at all?

**CURRY:** Eventually, yeah, I am thinking about writing some books.

**WOODS:** Yeah, good. That would be fun to read. Well anyway, listen, I'm really grateful for this. You know, initially when the person suggested that I should contact you, I thought, well, I tend to shy away from scientific topics when I'm not immersed in the literature. I want to talk about things that I know really well. But I thought, well, one thing that I do seem to know is how things like this can become politicized, and also I'm interested in people's own experiences in academia and how it's not always the dispassionate ivory tower that we imagine it to be. So I'm grateful for your, well, frankly, courageous position that you've taken, and I wish you the best of luck.

**CURRY:** Okay, thank you. It was a pleasure to talk with you.