57. Fear and Climate Change

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Future Sense is a podcast edited from the radio show of the same name, broadcast on BayFM in Byron Bay, Australia, at www.bayfm.org. Hosted by Nyck Jeanes and well-known international futurist, Steve McDonald, Future Sense provides a fresh, deep analysis of global trends and emerging technologies. How can we identify the layers of growth personally, socially and globally? What are the signs missed; the truths being denied? Political science, history, politics, psychology, ancient civilisations, alien contact, the new psychedelic revolution, cryptocurrency and other disruptive and distributed technologies, and much more.

This is Future Sense.

Nyck: We're talking today about fear; we're talking about progress—are they mutually exclusive or how do they interact? We're talking about the state of play with regard to some of the big issues of our time here on the planet and how we are responding. What motivates us? How can we see whether fear is excessively motivating us; where it might be useful? Because in some cultures in the past, and I know that in ancient Athens, for example, it was built in a large part on that society's success to keep future-focused while simultaneously using history to remain vigilant—just to remain vigilant. So it's not about forgetting or neglecting the past or judging the past or pushing it away, but actually using it as a tool itself to remain vigilant for how we move towards the future.

Steve: Paying attention, that sounds good. I like that.

We're going to talk about what we might need to do to deal with change as a species, to perhaps accelerate our progression and get through these turbulent times which have changed a little bit quicker than it might otherwise. There's certainly no doubt that we're facing major global challenges—there's no doubt whatsoever—and these challenges are increasingly more complex and increasingly compounding, so one challenge is impacting another challenge and therefore making it more difficult for us to see pathways through these challenges. If they're all interconnected and we try and deal with one, but then the other challenges that are impacting our efforts to try and deal with one on its own, how do we move forward? How do we cope? And right now, as a species, that's looking like a fairly hopeless situation for many, many people, and quite rightly so.

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Nyck: One of the things that happens, I guess, when people are challenged, is that they want simplicity; they don't want complexity. They want simple answers, they want a sort of linear approach, like 'if this happens, this is happening and we need to do this'.

Steve: That's the regression, which takes us back to simpler thinking.

Nyck: So it takes us quite a big conscious move to actually start to receive or accept or begin to allow complexity into our analysis of various situations and various challenges and problems, whether they be personal or global.

Steve: And fear is a key issue there, and this is why we're talking about it today. If we get lost in the fear, if we fall into the fear and hopelessness, then we also dumb ourselves down, and we further reduce the likelihood of facing these challenges successfully. So while fear can be a wonderful alarm system and can be very good for making people sit up and take notice, if it's overdone, if we get lost in it, then it actually makes things worse, and that's a very, very fine line, that tipping point there. We certainly need to up our game, and from my perspective, evolution certainly has that in hand because we can see that we have been thrust into a change dynamic, which is actually taking us to a higher place, even though it's confusing because we're actually taking one step backwards to go two steps forward, but that is the normal way of things. We can look back at, as we've often spoken about previously on this programme, we can look back to the previous paradigm shift between the Agricultural-Authoritarian paradigm era into the Modern Scientific-Industrial and see that we went backwards before we moved forwards there, also.

Nyck: And I think anybody on a very personal level would have had that experience in life. I think it's basically true for everybody. You don't have a purely forward or purely backward trajectory, or very rarely, anyway. You do move two steps forward, one step back. That's how we operate. It brings that tension to our consciousness, which enables a jump—a leap becomes available to you; perhaps a different way of thinking, a different way of seeing things.

Steve: That is the way of complex systems, and of course, human consciousness—human nature—is a very, very complex system. So I guess the key here is that if we can be conscious of the change process and understand the patterns that are playing themselves out and work with those patterns, we can potentially accelerate our progress through this change, which means less fear, less hardship, and a smoother trajectory overall.

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We're living at a time of major, major power shifts connected with this consciousness shift. We're seeing the decline of the global superpower, the United States, fairly clearly, and people are unsure about what's going to happen next. Is there going to be another nation state that will rise up to become the new superpower and will basically repeat the pattern over again? Or are we going to see an absolute decline in the power of nations and the emergence of a global government, for example? And if we are going to see the emergence of a global government, who would that be?

Nyck: And who would lead that government? What sort of leadership would do? We have talked about leadership on this programme before, and it's a topic we will continue to talk about because it's a contested space in a way. The old form of leadership and the old ways of hierarchy most people are pretty suspicious of, but clearly the right people need to be in the right place in order to get things done now, and we don't have, it would seem—in my judgement—many people in the right place to get things done. They're in the right place in terms of the regression that we're talking about, because we've got the Trumps and Boris Johnsons and even Scott Morrisons here in this country; and others leading countries—Bolsonaro in Brazil is a very good example of this regressive step back into an old form of politics—a reactionary, reactive, conservative, old values, morals and the like, and quite ruthless. And of course, China in Hong Kong, is the obvious one going on right now—China clearly scaring the bejesus out of, or trying to scare the bejesus out of the Hong Kong protesters, no doubt, and using fear, right there, to try and quell this uprising. But it's not going to go away that easy.

Steve: It's not going to go away. I must say, though, that I've been heartened to see that there hasn't been any hasty, extreme action taken there so far, and China has been relatively calm in terms of its response. Certainly it's not all wine and roses, but it's not all a major disaster yet, either. Very interesting.

We've got some really interesting dynamics going on, given all of this in our global situation. We're seeing an increase in fear, we're seeing a values regression, which in many cases is dumbing down our thinking, making us look for simpler answers to extremely complex questions, which we're absolutely not going to find; and simultaneously with that backwards motion, we're also seeing the rise of a new way of being human. It's important to remember that it's not all about collapse. It is often lost because it's just not reported very much in the mainstream media, that at the same time, we've got new technologies, we've got new ways of thinking, we've got new social structures emerging, which are actually superior in their capacity to cope with complexity than the Scientific-Industrial way has been.

Nyck: And this is probably the positive application of social media. For example, the networks that are being created around the world under the radar—hopefully, mostly,

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still—and in ways that are completely new; new connections with different people from all over the world, very fast, on the same sort of page somewhere with their interests. I'm thinking, for example, that the psychedelic movement is an obvious one in the world, and there are others as well, so there are these alternative networks of connections arising beneath the structures of the status quo, so to speak.

Steve: That's right, and that is, absolutely, a threat to the old ways—it's a threat to the status quo—the dominant paradigm still being the Modern Scientific-Industrial, nationalistic, corporate-driven military way. So ask yourself: if you were in the chair of the old paradigm and you saw this happening—this new way of being human rising, which seemed to be a threat to current authority structures—and you also saw a whole bunch of people being uncertain and fearful, which of those two things would you feed in order to be able to hold on, or try and hold on, to your power?

Nyck: I have a lovely quote here that I was just reading as you spoke. It says: "Hatred is corrosive of a person's wisdom and conscience. The mentality of enmity can poison a nation's spirit, instigate brutal life-and-death struggles, destroy a society's tolerance and humanity, and block a nation's progress to freedom and democracy", or to wherever we think we should be going. But there you go, that stimulation of hatred and fear that's going on in many of our cultures now—especially in the West, but not just here; certainly in the in the Middle East as well, of course—it is highly corrosive to this project. And you've got to wonder about that stimulation of that in society, how we're being taught, many of us, to hate and to fear each other.

Steve: It's been a feature of global politics for a long time, but certainly for the last 20 years, with all the wars, the massive scare campaigns that we saw in the Middle East about the weapons of mass destruction that didn't exist, and here in Australia, the politics of illegal immigrants, refugees coming in ...

Nyck: Children overboard.

Steve: All of those things. So I hope this is starting to help make sense of what's actually going on, and some of the hidden agendas that might be at play. We're slowly, with the rise of transparency—and social media is playing a big part in that—we're starting to see through the hidden agendas where, for example, whole systems have been set up across society with really the ultimate aim of making a lot of money for a very small number of people, and to the detriment of most people within society. And yet they've been done in such a carefully crafted and calculated way that we haven't even noticed, and they've been in full flight, then all of a sudden we realise that, wait a minute, the pharmaceutical industry, for example, just wants us to stay sick and keep taking the

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tablets so they can make money. That is one example out of many, many examples, and we're going to have more revelations over the coming years as more of these things come to light, that these social systems which have supposedly been put in place to help us—and have, to a large extent, been helpful—but have slowly been corrupted over time due to the phenomenon of corporate capture, to the point where they are helping the small percentage of people make money more than they're actually helping society. Again, it's a very, very complex situation—it's certainly not black and white—but there's a trend there that is slowly becoming more obvious.

Nyck: And it's important to reiterate, in terms of Clare W. Graves's work that we refer to all the time here—that everything in its paradigm, as one exists or a culture exists in that paradigm, will solve many problems of the previous paradigm. That's why the world actually has progressed hugely in the last few hundred years in many, many different parameters that you can identify. At the same time, though, a whole new raft of problems is then created, which has to be solved with a different way of thinking, a different paradigm, and that's really the one of the essences of what we're talking about here.

Steve: It is. We're not here saying that things are inherently wrong or inherently bad. We're just looking at the natural evolution of cycles and how these things play out. In the early stages of a new paradigm, as Nyck said, it does solve our problems—it brings a new complexity and a new capacity—and then eventually it reaches a peak, and then eventually it will deconstruct itself to make room for the next paradigm, and we're living right now in that deconstruction phase and the rise of a new paradigm. What it really comes down to is being conscious about where you put your attention and your energy. It's very easy at this time to get sucked into the fearful stories and sucked into the pessimism and giving up hope, but if you're conscious of the overall patterns at play and you actually want to build a better world and you want to go with constructive instead of destructive, then there are places where you can put your attention that are going to help create what's next.

Nyck: Yes. We'll take a break here. I was going to bring up one other thing, but we'll leave that. There's one other text that we will come back to here.

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Nyck: You are now tuned to *Future Sense* here.

Steve: And we're talking about fear today and how it affects us individually, but also how it affects us as a species; and its value in acting as an alarm system, helping us to take notice of things that are important and may even threaten our survival, perhaps; but also how there is a tipping point and when we allow fear to control us too much and we disappear into it, then we become much less effective, much less able to solve complex problems. At this present time in history, with the massive challenges that we're facing globally, we really need to be careful of overdoing the fear and getting carried away with viral fear campaigns, because they take us away from actually looking at the complexity of the problems that we're facing, and understanding those problems and finding solutions.

Nyck: You just made me think of something I think you posted on our *Future Sense Facebook* page the other day about the mind, about thoughts, about having thoughts and watching thoughts and the difference between those, because there's nothing wrong with having thoughts like 'there's fear here, I could be afraid, I'm thinking about this', but also to watch, 'that's how I'm thinking'. That's more interesting.

Steve: Yes, exactly. It's really about consciousness; it's 'how much can we be conscious of?' And we are really at a time in history where we want to be as conscious as we can be when we're talking about these things.

This next section is a very difficult discussion to have because it's sometimes a bit of a fine line between talking about the complexity of the problems that we're facing and some of the factors that are at play, and falling into overly simplistic conspiracy theories—so we want to make that point. We're going to talk a little bit about some new climate science, which has just been released in the last week, which is actually quite amazing. It adds, I think, a lot of value to the discussion about climate change and the challenges that we're facing around climate change. It came in the form of a video that was released through a *YouTube* channel called *Suspicious Observers*, which sounds a bit weird, you might say, but it's quoting a lot from a chap called Dr Brian Tinsley, who is professor emeritus from the University of Texas in Dallas, and he sounds like an Australian, listening to him.

Nyck: Yes, there is a bit of an accent.

Steve: And it's basically packed full of science and graphs. In fact, this video is mostly a recording of a lecture that was obviously given to a bunch of scientists. It's a little bit overwhelming for most people who don't have a scientific background. I've got a bit of

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experience around science—I'm not a scientist, but it's been a big interest of mine for most of my life—even I felt a little bit overwhelmed watching it the first time, trying to take in everything that they were saying. But essentially what they've done is they've pulled together 600 peer-reviewed scientific papers, which look at the impact of the Sun's behaviour on the terrestrial climate. I think they're really unpacking a lot of additional information which hasn't been part of the mainstream climate change discussion at the moment and that has the potential to change the way that we're looking at climate. I don't think it necessarily reduces the risk that we're facing from climate change—I think that we are facing a very, very considerable risk there, and the more we understand about how climate works, the better will be able to prepare for what's coming down the track—but what it does is it leads us away from what has become a very dumbed down global discussion and really a fear-driven viral meme that's driving many, many people at the moment.

Nyck: And as this video says—because I watched it, too, and it's very useful, and we will post it on our various platforms a bit later on for you to have a look at if you wish, it's about an hour long—the summary for me is on one slide, which says: "Anthropogenic focused studies do not properly account for the Sun, for cosmic rays, for volcanoes or for the Ice Age cycle." And there are other things too, other forms, but that's essentially a good little summary of it (https://www.youtube.com/watch?v=rEWoPzaDmOA).

Steve: Yes, I think it's important to say, too, that the video starts with a little statement about the need to clean up our act on the planet, and it just distinguishes between the issue of changing our behaviour so that we're not polluting our atmosphere, our water, our oceans, our soil, and living in a sustainable and even regenerative way, and distinguishing that from understanding the climate and being able to predict the climate, because these are not the same issues. This is part of what's happening, and whether it's being manipulated intentionally or whether it's just been a natural way that the global discussion has run its course, we are lumping in the same basket ecological awareness—a desire to clean up the planet—with particular attitudes towards climate change, and these things are actually very, very different issues. The impact of lumping them all in the one basket is that the discussion gets dumbed down to the point where if somebody expresses a different view of the science around climate change, automatically they get thrown in that basket and automatically you assume that they are pro-pollution, pro-fossil fuels and all these sorts of things, and that's just fundamentally wrong.

Nyck: It's pretty lazy thinking. That's what it is, it's lazy thinking.

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Steve: It is lazy thinking. I mean, it's probably better to say it's less complex thinking. It's not necessarily intentional lazy behaviour, it's just the fact that somebody's thinking has regressed to the point where everything has to be black and white, and you can't see the shades of grey in between.

Nyck: And what we're saying here, of course, is that our emotional response, our fear-driven responses, when they are overwhelmingly there too much, can make us perhaps susceptible to an oversimplified version of things because it makes sense—it proves our point, perhaps, it gives us justification for how we feel and for the actions that we might take—but perhaps it's not complex enough to look at things in that way. But there is an opportunity to stop and to have a look: 'this is how I'm thinking, perhaps if I just sit back and allow some of the other information that's out there to at least inform me—I don't have to agree with it, I don't have to like it, I might have contesting arguments', but to at least begin to receive it and to move away from this oversimplification of these issues.

Steve: And the aim here is to understand climate change so that we can deal with the major, major challenges that seem to be coming down the track, and certainly everything that we've looked at in the course of our discussions on this show is indicating that we are in for dramatic climate change and it is going to severely disrupt life on the planet in many, many different ways, and we need to prepare for it. The question is, what are we preparing for? That's the key question.

Nyck: Yes. We're seeing right now, of course, a massive hurricane in the Bahamas and it is likely to hit the east coast of the United States. Apparently, as it stands right now, it is the biggest storm ever recorded in that part of the world in the time that records have been kept, and that's an indication of the power of what is actually happening on this planet—that these extreme weather events are occurring more and more frequently. The reason that they're occurring, however, perhaps is much more complex than simply anthropogenic-forced climate change.

Steve: Yes, in this video that we're talking about, they very simply break climate change down into the sum of natural variability—so in other words, natural cycles that occur on the planet, which change the climate from time to time—and the human impact. They make the point that if we don't fully understand the natural variability, then we can't scientifically account for its impact on the climate change, and what's happening in the current debate is that anything that we don't understand scientifically, the change that's resulting from those things that we can't see or don't understand is being attributed automatically to human impact. What this is doing is it's biasing our understanding—skewing our understanding—towards thinking that there is more human impact than

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perhaps there actually is. Now, this is not saying that the climate is not changing, and it's not saying that we're facing major challenges.

Nyck: Or that we haven't contributed to it.

Steve: And it's also, as you said, not saying that we haven't contributed to it, but what it is saying is that our current understanding is not adequate. I think that's quite clear, because when we look at the climate models, which are constantly being put forward by the *United Nations IPCC*, we know for a fact that these models don't work—they don't reflect what's actually happening from day to day on the planet in terms of weather trends and climate trends—and this is something that's getting lost in the fear-driven global discussions, is the simple fact that we actually don't have a climate model that can predict climate change; and yet here we are working on assumptions that we know exactly what's happening, we know what's coming down the track. Those false assumptions are then serving as the foundation for secondary scientific studies, and it blows me away seeing these sorts of things happen, but it's also part of the way that the values shift and the values regression is impacting science itself—that people are writing research papers saying that, 'oh, in 100 years' time, all of the oceans are going to change colour because of the linear global warming trend', when there's actually no solid scientific foundation for the linear global warming trend at all. So I really think if you're interested in the science around climate change, it's worth taking a look at this video, and as Nyck said, we'll post the links after the show (https://www.youtube.com/watch?v=rEWoPzaDmOA).

The beginning of the video is just making the point that if the foundations of our climate understanding, our research, are wrong, then we are actually working on a false assumption, and the great danger here is that we prepare for global warming and get surprised by something different; and that is perhaps even more of a disaster in some ways.

Nyck: The complexity of the video is fantastic to me and I know even less than you—you're more scientifically able to comprehend some of the science and that—I found it compelling, this particular video, and very scientific and very direct and didn't feel like it was some sort of manipulation at all. What I did realise very quickly was that the complexity is extraordinary—the way that the Earth itself, on its axis, around the solar system, going around the sun, moving through space, in this galaxy, is extraordinary—and the influence of electric, magnetic, cosmic radiation, all of these factors continually impact on the ionosphere and the atmosphere of the Earth in a very complex way, interfering with clouds and the movement of the cycles of weather and the ocean currents and ice coverage on the planet, the melting and the accruing of glaciers, everything—all of these factors, and I think I'm missing some things—all feed into the complexity of what weather actually occurs on this planet.

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Steve: And the complexity is the key here, because the complexity in these arguments being put forward far exceeds the complexity of the mainstream discussion, and that complexity is a reflection of the level of consciousness that's being brought to the issue.

When we come back from a break, I'll just go through some of the key points from the video.

Nyck: Absolutely. We'll be back in a minute.

Nyck: You're tuned to *Future Sense* here with Steve and Nyck. Thanks for your texts. One text I'll just read quickly: "It's also worth mentioning," says our writer, "that Clare W. Graves noted that once a systemic layer of consciousness is reached, then fear is dramatically reduced." We don't have time to really talk much about that here today, but that's quite true.

Steve: Yes, that is particularly associated with the transition from First Tier to Second Tier, so technically not the systemic level, but at the end of the systemic level which transitions. Sorry, let me correct my language there. It's between Layer 6 and Layer 7, so at Layer 6 we get a systems way of operating, and then quite correctly, as the text author there says, as we transition from 6 to 7, which is from the First Tier into Second Tier and Layer 7 becomes systemic—so that's like a system of systems understanding—then we get this massive reduction in fear, so, yes, that's quite correct.

We're just talking about examples of fear-driven discussions and particularly just honing in on some new climate science that's come through in the last week, which we think adds a lot of value to the global climate discussion and may help dig us out of this kind of pit of fear that everybody seems to be falling into at the moment. It's particularly focused on an understanding of the Sun's energy dynamics.

At the moment, the current climate models that are being referenced by the *IPCC*, which is from the *United Nations Environment Program*, are working on an understanding that solar energy contributes only a very, very tiny amount to the impact of climate change on the planet. The science that they're using there is saying that the total impact on warming is about 0.1% at the moment, but all they are considering is basically UV radiation. The new science, which has just been released in this video which came out about a week ago, is really unpacking the Sun's energy output and the many, many different ways that it interacts with the planet, and it's really helping us understand that there's a whole lot more going on there than is being acknowledged by climate science at the moment.

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It's important too, to note that we have these divisions between science, which is a product of the Scientific-Industrial era where everything specialised, everything's gone deep, but within very, very narrow confines; and we have all these bits of science which are disconnected from the other bits of science. So there's a whole bunch of people that have been studying the Sun's solar dynamic solar interaction with the Earth, but they're not climate scientists, and for some reason, the *United Nations IPCC* scientists group, isn't interested in talking to scientists outside the climate science domain, which in itself is suspicious from my point of view. It suggests that there may be a hidden agenda there, because it's quite clear when you read the *IPCC* reports that they state very, very specifically, in many of their reports, that they are focused on the human contribution to climate change only, and their models are really not studying what's actually happening. I mean, they don't use those words, but they say that 'our models are focused only on the human contribution to climate change because we think that's most important', and that, in fact, is just not a scientific approach—scientists don't discard data; scientists look at all the data and then make an assessment.

Nyck: And it is a bit suspicious because it is excessively anthropocentric, and if you look at the longer, longer scales of changes on the planet with that very same science—or some of our best science—you can see some of the long patterns of solar activity, the long patterns of weather, of climate on the planet, and really look at that as the bigger picture, the little bit or the amount that human activity has influenced it—yes, that's there, we still don't know exactly how that factors in—but to disregard the long cycles is a big one.

Steve: And this new information, I'm calling it new information, but in fact a lot of it's been around for quite a while. In fact there is an article that I pulled up, which I'll tweet after this, by a NASA-sponsored scientist, a researcher from 2012, and it states: "There're places where the magnetic field of Earth connects to the magnetic field of the Sun, creating an uninterrupted path leading from our own planet to the Sun's atmosphere 93 million miles away" (https://venturebeat.com/2012/07/04/nasa-discovers-portals-but-dont-book-your-ticket-yet/). The science that's just been published in this video is talking about the Sun's output as being made up of a variety of waves—including x-rays, ultraviolet rays and visible light across the spectrum there, particles, including protons and electrons, magnetic fields, including these massive magnetic connections, which were what this guy was talking about in his research about the pathways from the Earth to the Sun and vice versa, and things called Birkeland currents, which are electrical currents which are transferred from the Sun and into the Earth's atmosphere and stimulated by the movement of particles through our atmosphere. There are all sorts of impacts that come from these different energy exchanges. All of them, except for ultraviolet rays, are basically not visible to the *IPCC*'s climate models, so there's a tremendous amount of energy that's being exchanged there, which is just not being considered by the *IPCC*'s climate science.

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We have things like cosmic rays seeding clouds on the planet—there's good science around that now—and all of this science that was presented in the video is a compilation of 600 peer-reviewed papers on this topic. Interestingly, the variation in the incoming energy from the Sun's output can vary anywhere from up to 10 times to 1,000 times, so it can be quite an extreme difference between, for example, what they call Grand Solar Maximum and Grand Solar Minimum in terms of the amount of energy which is coming from the Sun. It can increase very, very quickly and it can drop away very, very quickly.

One of the archaeological examples that they've found of a rapid change in climate on the planet was the discovery some years back of some woolly mammoths that had been frozen to death instantly but still had grass in their stomachs. At one moment they were eating grass on a grassy plain and in a very, very short space of time, they were frozen to death before they could even digest the grass. Of course, that was the result of a big movie that came out a few years back called *The Day After Tomorrow* about the sudden freeze.

Nyck: Ah yes. If you want to get scared, that's a good movie to get scared by. Not that it's a particularly good movie.

Steve: So the *IPCC* models, which are only focused on ultraviolet radiation, their current data shows that when the Sun's energy output increases, that the net energy received by the Earth decreases, and so they're not only inaccurate, they're actually working in the opposite direction than they should be if they had a full understanding and allowance for this extra energy that's coming from the Sun through all of these different waves, particles, magnetic and electrical fields; and the lost energy in the model is automatically added to the human impact side because there's nowhere else to put it, because there's no scientific understanding for natural variations of why this energy exchange occurs. So that's automatically being allocated to human impact, and quite incorrectly, therefore skewing our understanding of how climate works on the planet. As we're moving into a period of Grand Solar Minimum at the moment, the Sun's energy exchange with the Earth is reducing considerably.

Nyck: Wow, there's a lot to think about.

Thanks for the last couple of texts there. Rob has written in: "Science is merely observation of nature's laws, not superior." I like that. Another text: "Great show, guys. Bravo. One question I've had for a while now is once we have all this information in our heads, what are we able to do to help with the change process on a global level?"

Steve: That's a really good question. I think first and foremost, most of our effort should be going into preparing for climate change, but we need to have a solid

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understanding—a scientific understanding—of what that means, and at this early stage, there is an indication that it doesn't mean total global warming and it doesn't mean total global cooling, although it seems to be pointing very, very clearly towards a mini ice age. From what I understand about that now, what that means is that the northern hemisphere is going to get impacted quite severely by cold weather, and yet the southern hemisphere will have a much milder experience out of it, but it will also, of course, mean cooler temperatures. During the transition phase—so while the climate is changing and before it settles down into what it is next, and that may be a mini ice age—we're going to get extremes in both directions because that's what happens when complex systems go through change. They have spikes of warm and spikes of cold weather and that's exactly what we're seeing on the planet right now, even though the spikes of warm weather are getting much more media coverage than the spikes of cold weather. But we saw some really severe cold weather, particularly in North America and Europe during their last winter when that polar vortex came down over North America.

Nyck: Exactly.

That's it for the show for today. Thanks for joining us here on Future Sense. You can get to our podcast at www.futuresense.it or from your usual podcast platforms; the edited version of this show is usually available within a couple of days. At the *BayFM* website, www.bayfm.org, you can also see, straight away at the programme page of *Future Sense*, the show for the day and what's been going on there; and you can check us out on *Twitter* @futuresenseshow.

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