

## Episode 054 - Reversing Complex Problems for Global Security An Interview with James Greyson

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*Intro Music*

**[00:34] Angie:** James Greyson here on the Human Current, so thrilled to have you today. Please introduce yourself to our listeners, along with telling us about the work you're currently doing and what makes you passionate.

**[00:46] James:** Thank you so much Angie, it's a pleasure to be here. I'm a speaker, writer, researcher and consultant on solving big global problems. I have a special interest in the problems that we've so far failed to solve. And, in looking at the ways that we failed to solve them, I feel that can tell us something about what we can do differently and how to go far beyond what we've managed to achieve so far.

At the moment I'm working on an unusual range of things, there is putting together a big research project with international partners like the Potsdam Institute and Stockholm Resilience Center. I'm doing design work on biochar cookstoves and creating instructions for that, which we're going to open source with an American NGO called 2050 Kids. I'm doing a lot of work at the moment for the UK government on assessing innovation projects, applications to them for funding, and I give a view on what I think of how innovative they are, and I've been doing talks in different places as well.

**[01:44] Angie:** Sounds like you are very busy. I'm glad that you're able to make some time to chat with us today.

**[01:48] James:** It's a pleasure.

**[01:49] Angie:** We are curious James, how did you become interested in complexity?

**[01:53] James:** I guess I've drifted into complexity, you might think that everyone would be interested in complexity as well since we are all complex systems ourselves and we're living and immersed in other complex systems, yet the strange thing is that people seem to avoid complexity but this is something that I've drifted into because I've been involved with environmental sustainability and security issues now for almost thirty years. And so, the more you look at these things, the more that you find that pretty much all of the issues are interrelated in very complex ways and you end up having to think as much about the complexity and how to manage that as you do about what you can do with particular issues or particular parts of issues.

**[02:34] Angie:** That's such an interesting framing around where complex systems living within other complex systems, it's so obvious and yet as you're talking about that I had never thought

of it that way and it's so true. I find it interesting that with that in mind more of us aren't complexity thinkers.

James, as you know we're in a series exploring the complexity of the environment, so we've been very intrigued by your experience and in particular one of your recent blogs titled, *Just Four Steps to Reverse Climate Change*, and I have to admit when I read *Just Four Steps to Reverse Climate Change*, I thought well this sounds so tangible, so for listeners can you tell us about that blog and what are these four steps?

**[03:18] James:** What I was trying to get to with that blog was some ideas which go beyond what you normally see because normally when people are talking about climate change you're hearing about how bad the problems are or how it's something about emissions and here's the technology changes to deal with it, or here's some policy ideas, but what tends to be missing is the debate that goes beyond these sort of default discussions and in particular the question of how ambitious we can be with the climate. And so, I wanted to start with suggesting that we should be aiming to reverse climate change, not just to reduce it or mitigate it or the kinds of things that you normally hear.

And climate change I think is a perfect example of a global problem that we failed to solve by staying stuck in various kinds of default answers that either avoid the complexity of the problem or they avoid managing the complexity that causes the problems. So, what these four steps are, are four possible ways to get unstuck from this kind of default debate and potentially move into some new kind of solution spaces with new possibilities for action.

The first one, which I call, blindspotting is to deliberately push ourselves to imagine possibilities beyond these common debates. So, if you like that's to be deliberately discontent with what we normally discuss and what are normally considered solutions and to ask ourselves what's beyond that? How could we be more ambitious? How can we relook at things that we perhaps skipped over before? And that's blindspotting.

The second one is about trying to make this sense of possibility tangible to start with because there's so many intellectual or technical discussions about climate change, but what you don't often get is people before they're discussing it and before they're thinking of very much about it actually getting hands on with something that shows them in a very tangible, real practical sense, what could really be possible. That's really the work behind my designing of cookstoves and these cookstoves are designed to make something called biochar, which is charcoal. Most cookstoves of course are just burning wood or charcoal into ash but this is making charcoal, which is carbon that can be then a carbon store, so this is a way of showing people that very easily, very quickly using just tin cans and using designs which are actually quite simple, which we've created here, it's possible to make a cookstove and then make biochar and to see what it means to actually store carbon.

The third step was about being more ambitious with the whole strategy, with the whole approach to climate change, I call this climate rescue and that's about no longer pretending that it's enough to plan to cut emissions and seeing that we need to cut greenhouse gas concentrations because that's actually what's driving climate change. It's not the emissions that drive climate change, it's that the emissions add to concentrations and then the concentration of greenhouse gases and carbon dioxide in particular they determine what the climate is doing and

the level of stability. So that's the climate rescue part of it, and the fourth step is to look at what it would take to really address that at scale.

If we were totally serious about climate change, then actually we would be looking at something which is much more systemic. You would actually be seeing climate change as a symptom not just as a cause and the symptom of being the result of the way that we run the world, the way that we set up the systems that we all live within because currently they're set up to cause climate change and a range of other problems. And actually, what we need to be looking at is how to fix not just climate change, but how to fix the whole global system, this whole set up and then by doing that then to allow that to deal with climate change almost without even having to think or talk about the climate much more afterwards. So, taking care of climate change would almost be a kind of secondary outcome of taking care of everything else.

**[07:11] Angie:** I'm curious, why do you think there's resistance to believing that there's climate change?

**[07:18] James:** I think that a lot to do with the sense of this problem being too hard solve, because if we compare our own lives and what we normally feel that we can influence in our own lives, compare that to the enormity of the climate, the whole global climate system, which basically determines whether or not we can continue to survive as a civilization, whether or not our kids and grandkids will have a survivable future. It's such a big immense, scary, overwhelming thing that it's almost too much for people to think that actually it could really be happening and we could really be getting it wrong in a big way. And so it's a kind of instinctive psychological response, it's one of the possible responses to complexity being quite an overwhelming thing, to just shut off from it and run away from it and say no climate change couldn't be happening, there can't be a problem, can't be something we're doing and so I'm just not going to worry about it, I'm going to look the other way.

And I think that one of the things that we can do to make this easier for people to understand that there is a problem and to accept that consciously is to show solutions which make the whole problem seem much more manageable and to make it seem like it's possible to do something beyond what we've tried before and we've worked for a long time on climate problems and we haven't really made any serious progress because of course the concentrations keep going up and the climate impacts keep getting worse. So I think the challenge for those of us who can see there's a problem is to present the solutions in a way which not just shows that technically it's possible if we make this huge effort and change everything, but actually present the solutions in a way where the simplicity and elegance of them and their attractiveness starts to compete with the attractiveness of just discarding the whole idea and not believing in it.

**[09:07] Angie:** I feel like the small solutions that each of us can do and present can have big implications, whether it be not using plastic bags and not purchasing bottled water when possible and even things like your cookstove. Those are really simple solutions that each of us could be practicing and sharing and that they would have bigger implications on this global issue, which climate change is definitely something that we're faced with today and that we could see essentially the end of however you define that in our lifetime and that's something that generations before us have not been able to say but the time to pay attention and do things differently is today because we have to do things differently while we still can.

**[09:52] James:** Yes, exactly Angie. What's interesting about the simple practical solutions like for example the cookstoves or taking care of not using plastic unnecessarily, is that it's possible to take that same sense of practicality and simplicity and apply it to the other types of solutions that are needed, which is the whole system solutions that encompass the scale of the problem and the scale of change that's necessary. And to be able to show that that actually also could be as simple and practical as the kinds of tangible things that we can do in our daily lives and this is something I think the environment movement has not really succeeded to do so far, but I believe that we could.

**[10:31] Angie:** That definitely feels hopeful and I'm so curious too James, where can our listeners get more information on the cookstove or where can they purchase a cookstove?

**[10:39] James:** We're going to be giving away the design, so it'll be open-sourced for anybody who wants to just make it for themselves or for a nonprofit project. You could look up the partner organization, 2050kids.org and also there's some information on my website, there's a blog or two there about the cookstove and if people are following me on Twitter, @BlindSpotting, or @Climate\_Rescue then we'll also be tweeting when the cookstove instructions are available, which hopefully is not very long from now.

**[11:08] Angie:** That's exciting! We'll definitely be checking it out. James we learned more about your research paper that you wrote for NATO for fast planet-scale system change titled *Seven Policy Switches for Global Security* and we'll link that to our show notes including your TED Talks. In this paper you stated "shocks such as the credit crunch, infectious disease, climate instability, and ecological collapse are converging towards a planet crunch, where security would become a fond memory" and as you said, "everyone desires a secure life".

So we've definitely discovered from your paper that your thoughts on global security are not necessarily the traditional view, with that in mind, in your opinion, what does global security look like and why is it important to make security a global issue?

**[11:56] James:** I think global security could be an ideal way to describe an overall goal for complex, interlocked, global problems because you've got so many problems which you can lose track of individually if you just start making a list, to actually see the problems as a whole set then it can help to have an overall goal. Global security is so far the best, most useful term that I found to describe that goal and it just means that your need to feel secure, everyone's need to feel secure, depends on everyone else's security. There's a connection there, which can't really be lost and that any facet of security like climate security, ecological security, financial, food, military, etc., depends on every other facet of security being available. So all these types of security they're basically interlocked. This makes it possible to think about managing all this complexity as a whole system because it behaves as a whole system rather than having to always deal with each individual part one at a time or to just look at the links between one or two sometimes three parts of the system.

Global security also makes it possible to escape the traditional view of security, which I feel has become entrenched behind walls and behind weapons, where global security ends up being ignored or imagined to be impossible because times are just too tough and there isn't enough for everybody to go around. That traditional view of security is more about defence, not really

about solving problems, and when we're not solving the problems of course the biggest problems just get bigger. You end up with more conflict and then of course you need more walls, more weapons, and then the spending is going into these things rather than into creating the security that everybody needs. More and more people end up on the wrong side of the wall, like maybe Mexico or Europe with Brexit or Syria or wherever, until ultimately we end up with the opposite of global security. Eventually, moving to a global insecurity where there would be no form of security available anywhere.

**[13:52] Angie:** I'm so glad that you brought this into the conversation and I've been thinking about the recent election and the new president here, Donald Trump, wanting to build a wall and we talk often about the issues of humanity with that, but I can't help think about the implications that does for even the environment and animals being able to cross freely over borders that are man-made by these human country borders are man-made and then to build a wall and what kind of implications environmentally that that would have and we already know the implications or at least I'd like to think our listeners and others know about the implications going on in Syria for example. And so, I really appreciate you bringing the wall and the idea of weapons and that being the classification of global security into the conversation and that we're missing the mark and that there's a new way that we need to be looking and defining what global security is.

James, in your conclusion of your NATO paper you stated, what is possible must match what is necessary, so what is necessary?

**[14:54] James:** I guess compared to global insecurity, which we were talking about global security as an overall goal, which means basically looking after everyone everywhere and looking after the environment. Global security seems necessary but to get it we need to manage complexity differently, we need to manage complexity of all these problems at a planet-scale, rather than trying to escape the complexity or to hide in working with our preferred corners of complexity within favorite issues or favored areas. And this means we need to try new ways of solving or reversing global problems because as we've seen over the last four or five decades, the old ways just are not working.

The great thing about complex systems as a topic for global security and for all of the individual problems that we're looking at, is that they're actually self organizing and that means that the change in the system doesn't necessarily mean everyone having to become an expert on every issue and having to think about and get everything right all the time and to intervene everywhere, that level of micromanagement just isn't really ever going to happen. But you can actually manage patterns of complexity, you can manage complexity at a kind of whole system scale without needing to micromanage everything. We just need to intervene where we can get enough leverage to switch the current systems from causing to solving problems that they've previously caused.

My paper for NATO was proposing seven levers, that the design to work a bit like the levers of a lock, where each lever is unlocking new system behaviors that are also supported by all of the other unlocking levers. That lock metaphor helps us to remember that it's not enough just to work on moving part of a lever or moving one lever part of the way or even one or two levers, if you want to unlock a lock, you actually need to move all of the levers from one diametrical position to another.

**[16:50] Angie:** James can you describe what the seven levers are?

**[16:53] James:** Yes, certainly because they're quite big systems that we're dealing with and the levers are very slightly technical, it's probably useful for anyone who's interested to have a quick look at the paper itself. But just from an overall perspective, what the levers are trying to do is to create practical physical change in different kinds of systems that are around us that we take part in the world but also to create a collective change of mind. So the levers represent a change of shared worldview that we also need to make the practical changes make sense and to make them acceptable to enough people to actually happen.

So the first lever is about getting the ambition right because this is one of the things that we've struggled with over the decades, actually being even as ambitious as necessary to even be aiming in the right ballpark for creating change. So, the first lever is simply to switch from a strategy of reducing problems, come from a kind of incremental problem at a time strategy to the global security type goal, to look at what are the most problems we can solve in one go. How could we reverse problems and not just reduce them? How can we scale up, what we're aiming to do far beyond what we've done before?

The second level is immediately going into our thinking because all of the global security problems that we have today, like climate change, like loss of environmental quality they're ultimately problems in how we think, in our habits of thinking, in reductionist ways that focus on one thing and then exclude thinking about a lot of other things. And so the second lever is to switch our education systems, as a way of prompting us all to switch the way that we thinking from just reductionist thinking to a range of different kinds of thinking for example, including system thinking. And the method I proposed for that is really, really simple, to switch from predetermined teaching, which is basically people learning what they are being taught which is basically repeating the learning from the past, copying that into the future, to a new kind of learning, which I call, curiosity-led, where were collectively learning what we find interesting and of course what anybody finds interesting doesn't fit into a prescribed curriculum and it doesn't fit into subject categories. So we can use our curiosity to just jump across what people have previously thought we should be understanding and to find new ways of understanding in new ways of looking at the world.

The third lever is actually very directly focused on climate change, but of course the emissions that are causing climate change are only one example of the kinds of waste which we are creating from the resources of the planet. We're actually converting almost every kind of resource imaginable into waste, which end up in all of the ecosystems, land, air, and water ecosystems. So, it's not just fossil fuel and not just carbon dioxide as waste. And one of the interesting things you can do is not just focus on that one waste from that one resource, but actually you can deal with the habit of the economy wasting all kinds of resources and causing all kinds of waste. You can deal with that as a whole system correction and so what I've proposed is an economic tool for correcting that systemic error in the economy. So, that it then becomes more profitable to stop waste in future rather than to allow them to happen and that would of course make fossil fuels more expensive, it would make renewables cheaper, it would make energy efficiency easy to fund and it would do that across all resource flows and all kinds of waste and that actually deals with quite a huge range of problems, which we've experienced for a long time now internationally.

The fourth lever is dealing directly with the sources of conflict, which are coming out of weapons. Where there's an incentive which was unintended in the way that we calculate GDP, there's an unintended incentive for governments to spend more and more on weapons and less and less on preventing conflicts. And so, what I've looked at is that actually it's possible to remove that incentive and actually instead replace it with an incentive to spend money and so it's possible to by very simply changing the way that we account for GDP, by simply omitting the weapons spending and the transactions that are weapons related. You can instead remove the incentive of the spending more on weapons because they would no longer add to GDP, they would no longer add to economic growth, and politicians who have spent more on weapons would actually be able to boast less about how well they're doing with the economy and then conversely politicians who are spending more on preventing conflict rather than preparing for conflict through weapons, they would actually find that their GDP is going up, their economic growth is going up, and that gives them more electability and more status on the international stage.

The fifth lever is directly addressing the kind of ecological problems that we see worldwide where for quite a long time we've been losing natural capital almost everywhere in the world. And what that seems to require, rather than the sort of bits and pieces patchwork conservation that we typically see attempted, is more of a global effort, which gets directly into our relationship with nature. And what I'm looking for here is basically a switch in what we see as a sense of belonging because currently we see nature as belonging to us, to humankind and actually what we should be aiming for is that we feel that we belong to nature, that we belong to the earth, that we're then looking after. And I believe that that can be done by a very simple technical change by an international treaty that redefines ownership of the surfaces of the earth. Redefines ownership of the property in land and in natural capital and in oceans for example. So that guardianship of natural capital would be included within ownership as a requirement of ownership and people who own natural capital, but instead of looking after it they were removing it or destroying it, they would lose that right to continue to own it and there would be a transfer at least of the right to use that land to other people who would then be in a position to take care of it.

The sixth lever is about the issues of inequality and the accumulation of financial wealth with an ever decreasing smaller number of people worldwide. And of course the hardship that causes consequently worldwide where more and more people end up with less and less resources and less and less access to the forms of wealth that they need to survive and to thrive. And rather than the usual approaches of trying to say, oh we just need more taxation, we just need to give the rich a harder time, or we need to focus on the wealth flows, actually what I'm looking at here is the stocks of wealth that the mega rich have accumulated already and to find ways of harnessing that through public pressure, through peer pressure of the mega rich themselves and as much as is necessary through government policies on taxation and suchlike, to basically inspire a mega transformation of mega philanthropy. So to scale up philanthropy to the level where it becomes possible to release enough funds to deal with the global stockpile of all the different kinds of security problems that we have worldwide. So that includes poverty but not just poverty, so it's the accumulated carbon in the atmosphere and you know where's the money going to come from to pay to remove that. It's the accumulated loss of natural capital worldwide and what does it cost to rebuild ecosystems and forests worldwide? And all the different facets of food and water, security, everything that you can put into a global security picture and what

that costs to get back to the point where that becomes achievable. And the last lever, the seventh lever, is to do with how we handle money because of course the strange thing that's happening with money worldwide is that despite everybody working all their lives and more and more people working ever harder, we find actually that governments and individuals and sometimes even companies are running out of money and people just don't have the money they need to lead normal successful lives and also to be able to do simple things like invest in solar panels or insulate their homes, sometimes even to feed and clothe their children and this is actually a systemic error. So the question of austerity which is found internationally is actually something which is quite easy to solve through correcting the systemic error in the way that money is introduced into the economy, into almost every economy in the world. Because currently it's introduced by almost entirely bank created debt is issued as credit from the banks to everybody else, which of course puts everybody else permanently in debt and that's the reason why we have so much debt and so the seventh lever is to switch instead to local and central public created money. So not created by banks, but created by public, accountable, transparent institutions like public owned central banks. And this is a way of heading off the next financial crash and potentially reversing a lot of the difficulties that people are facing worldwide.

**[26:36] Angie:** Wow, that was a great summary of the seven levers and the paper that you wrote for NATO, it's such a great read and I encourage our listeners even though you have just explained these levers beautifully, I would recommend to our listeners to also have a read with the NATO paper. I think that these are practical approaches to big issues, and as you're talking and describing the seven levers, I found myself getting excited about each of them and I found myself like playing air guitar and thinking this is my favorite and then you'd move on to the next and I'm like, yes this is it and so forth for all seven, they all make so much sense and yet we know that these seven levers aren't happening. At least, not to the degree that they need to be happening, I don't doubt that there's work being done in pockets of the world and in different communities.

So James that leads me to ask you, can we still achieve global security and are we on track? What needs to be done?

**[27:32] James:** It's a great question. Nobody can guarantee a happy ending to this global security story that we're starting to talk about because of course society has for so long now, decades, sometimes longer, sat and watched while these massive global problems accumulate, like carbon waste accumulating, pollution, they've lost ambition in many cases for even trying to solve these big problems, lost natural resources and natural capital, weapons stockpiles, debt stockpiles, have all been accumulating and the policy responses as you were saying have been inadequate compared to the scale of what has been needed. And so these levers are a way of saying, look there are policies that can address these problems on the scale that's needed and it's possible not just to do one or two of them, but to do all of them and because all these issues are interlocked or interconnected actually we can do all of them and we can do all seven and that doesn't necessarily need to take a long time.

So, nobody can say for sure that it's too late with global security, even though we've waited decades with the levers basically sitting untouched, in the locked position, in the wrong position. It doesn't take decades to switch and to unlock them, this is about a process which involves changing minds, sharing information with people, agreeing with politicians, what might be

possible and what can be done, potentially bringing in legislation and these things can happen very quickly. For an example, something like Brexit is coming in politically within months, although people have wanted it for a long time for no good reason. From the point of Britain voting for Brexit to the point of politicians passing laws to make it happen, it's a really short period. And this is similar with the financial crash in 2008, it was a very short period between the financial crash, seeming to happen internationally, and the international political response which you well know it wasn't the right response of financial sector and bank bailouts, they did it very fast. So if politicians and if the public and the campaign movements potentially had the right set of policy levers to work with rather than the ones which are either inadequate or counterproductive, potentially we could be looking at a very fast turnaround.

**[29:48] Angie:** It's interesting how something can come so quick, you use the example Brexit and the bailouts and even looking at Donald Trump. what he has done in a short amount of time although we would necessarily say that all that is great, but it does happen really quick and so it is hopeful to know that things can happen quickly because although you state that it can be done any time, we also don't have forever, and I think too that a message to organizations out there and communities is that you can be implementing your own policy using these seven levers, it doesn't have to necessarily be at a federal level but we can have local level and influence up and so there's only opportunity to be implementing the seven levers.

**[30:34] James:** Yes exactly, I think what's interesting about the kind of history of the environment and sustainability movement, which is basically just over four decades now is that we've got a bit stuck in habits of not solving the problem. Because we've gone for so long now without any really major solutions to almost any of the big problems that we've been trying to tackle for so long, we've got locked into a slight defeatism and feeling like because it's a complex problem it's inevitably impossible and difficult and slow to fix. But actually, I think this might be more about realizing that it's been slow in the past because we haven't been doing it in an effective way and that if we're able to use improved methods for tackling the problems, in particular at the scale of which it's possible to solve them, then we could see very fast change. The failures of the past are entirely optional and we can start from scratch, we can do incredible things, potentially millions of times faster progress than what we've seen before or what we even imagine now is possible.

**[31:38] Angie:** Yeah, that feels so hopeful and a lot of that is also shifting our mental models and one example you shared which I really appreciated was the relationship with nature and that shift in our mind and then how that shows up in our behavior around that relationship and that nature doesn't belong to us, but that we belong to it. I had a professor once that said, something to the effect of how would we do in this world without animals, without nature?

**[32:10] James:** Good question.

**[32:11] Angie:** Of course the class is like, well we wouldn't, we couldn't exist. And then to switch that and say how would they do? How would environment and the animals do without us? Well they would thrive and that really stuck out for me with that professor when I was doing my undergrad.

**[32:25] James:** It's a great comparison.

**[32:26] Angie:** Yeah, it just kind of brings it down to, oh yeah we're not only the cause but we can be the solution as well and we just need that shift in our mind.

**[32:36] James:** Yes exactly. I mean this is one of the interesting things about the Anthropocene you hear discussed more these days, which is the idea that humans are now so important on the global stage that actually we've become part of the geological record. We are changing the world on a geological time scale and there's two ways of looking at that. We can look at that as saying that, we're the kind of driver is on this vehicle of geological history and we can see ourselves with this huge panorama of possibility before us and we can feel very powerful and important with that, or we could also notice that actually on a geological time scale, we're not really having this huge impact that we feel that we might. Actually on a geological time scale we're a bump on the road of geology and that we actually have to be very careful now how we proceed, so that the geological record doesn't just entirely run us over as this little blip on the long time scale of the earth.

And if we want to have the kind of future that we see for ourselves, we have to be sure that we are able to entirely change the way that we're impacting on the planet and if we do that then we could actually be proud of our role on the planet, proud of our position on the Anthropocene. When people look back on the Anthropocene in future they will see something that was worth doing that humans had a positive impact in the end, even though they messed up a bit to start with.

**[34:05] Angie:** I love that reframe of being proud of being part of Anthropocene and I'm glad that you brought that term into the conversation because we haven't had a conversation about that yet, we haven't talked about Anthropocene. Can you describe what Anthropocene is for listeners that may not know?

**[34:21] James:** Sure, you don't need to worry too much about the actual scientific definitions, which are still not fully agreed of when the Anthropocene starts or what's going to happen with us in future. It's really just a way of saying that when you look at the geological record of the past, you see a lot of big occurrences which are given names and the current geological period that we're in now no longer makes sense to just give it a name refers to what's happened before, like the Holocene for example. It actually starts to make more sense to give it a geological name that relates to what's going on now in the world around us. And the human impact now geologically on all kinds of different earth systems, which are measurable and quantifiable, for quite a long time now for, decades at least if not centuries, these impacts are human impacts. So it's us who are now determining the geological fate of the earth and that Anthropocene is quite a big responsibility.

We're here at this point in geological time and we need to choose whether our impact, whether our story is going to be a positive one that continues or ultimately a negative one which actually doesn't continue, it ends up as a blip or a moment we'd just get sedimented over by future geological layers of the earth. And I think we don't want to be just ash and trash that's found a certain geological layer in the record of the earth. I think that we all want to be something more than that and I believe that we could be.

**[36:01] Angie:** Yeah I believe that too, thanks for that little definition. James what's a takeaway related to complexity and the environment for our listeners, maybe something our listeners can do?

**[36:10] James:** I think what's interesting about the complex behaviors of any self-organizing system, any complex system, whether it's a single living cell or a person or the whole planet, what's interesting is that actually it's too much to fully comprehend all that complexity, it's too much to follow it all and to fully understand it all. You often get the sense of someone's head going to explode, it's just too much to take on and that can even be some of the reasons why people withdraw or even hide from the complexity of global problems.

But, I think that's what is interesting as a takeaway is that the complexity of global problems doesn't mean that they become impossible, they're not impossibly complex to deal with. If we get back to the reductionist thinking habits that are so deeply entrenched and that are causing so many of these global problems, people can often only imagine dealing with these problems with more reductionist thinking and then when these solutions don't work, people's instincts are actually the problem is too big, it's too complex, we're going to need more reductionism. So let's just focus on this part of the problem, in this area where we happen to be interested at the moment.

So, my take away suggestion about complexity is that actually for most of the small or large problems that concern you or me or anyone, they're probably best seen as symptoms of a single invisible planet-scale global security type problem. A single problem, not millions of individual complex problems, this single complex problem actually could be manageable and solvable just as soon as we are brave enough to try a non-reductionist or or a whole system approach that hasn't so far really seriously been tried. So the takeaway is that actually any of us and all of us could try that.

**[38:00] Angie:** I think that's great and I would add too, and I know I have already mentioned this, to read your paper that you did for NATO. I think that there are some real tangible things that you could be doing as well.

**[38:10] James:** Thank you very much. There's a TED Talk which is on the blog page on my website, [Blingspot.org.uk](http://Blingspot.org.uk) if you find the blog page for the seven policy switches, you'll find the TED Talk there, you'll find links to more blogs with the individual sections of the paper and you can also find the links to the paper as a whole, and you don't need to pay to download it because the whole paper is there, free of charge for anyone to see on the website.

**[38:36] Angie:** And it's a really great read! I know that there's sometimes there's research papers that are well, their research papers and Haley and I found ourselves immersed in your paper and have gone back and read through it several times, in fact it's highlighted, notes in the columns and it's a really good read that brings you in and kind of gives you hope and gives you ideas of what you can be doing. We will include all of that stuff in our show notes, so our listeners can follow those links.

**[39:03] James:** Thank you so much Angie.

**[39:04] Angie:** Yeah, thank you for all this work that you've done and is there anything that

we've missed?

**[39:08] James:** That's actually a fantastic question because that's how I define blindspotting, which is the whole basis of the BlindSpot Think Tank, we're looking for what keeps getting missed. By looking beyond where everybody else is focusing, potentially we're seeing new things in new ways that haven't been tried before and we're effectively expanding the space for solutions to hopefully encompass the scale of what's actually needed and not just continuing to repeat the same solutions, which are tried and failed over the decades.

**[39:40] Angie:** That's great.

**[39:41] James:** And that's blindspotting, so when you're looking for what we've missed you're blindspotting, so keep it up, great work.

**[39:47] Angie:** All right, so we'll keep wondering what we're missing, that's great, especially we're talking about complexity there's no way we could possibly cover everything. There's always going to be things to miss and always get curious and curiouser with more questions and more solutions. James how can our listeners find you?

**[40:02] James:** Anyone is very welcome to tweet me @Blindspotting or @Climate\_Resuce you can send a message from the Blindspot.org.uk website. I'm also starting a new community of collaborators on Patreon.com, where you can look me up, where everyone's support is deeply appreciated.

**[40:26] Angie:** We'll definitely be following you and interested to see what other work you have in the future. Thank you so much for being on the Human Current today. It's been a real enlightening and interesting conversation!

**[40:36] James:** It's been a real pleasure, thank you so much Angie.

**[40:39] Angie:** Thank you.

**[41:38] End**

*\*DISCLAIMER: Humans transcribed this content. Please keep in mind, there could be some human error.*