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Transcript

Chris Martin: My guest today is Nicholas Christakis. Nick is a physician and sociologist at Yale University. His previous books include *Connected*, about how social networks affect our lives, and *Death Foretold*, about the sociology of prognosis. We will be talking about his new book, *Blueprint: The Evolutionary Origins of a Good Society*, in which he writes about how evolutionary pressures a human being as a set of social skills and desires that we can capitalize on to build a better society.

Hi, Nick! Thanks for joining us on the show.

Nicholas Christakis: Chris, thank you so much for having me.

Chris Martin: It's a pleasure having you on and you were one of the first people to join Heterodox Academy. So we are talking about your new book. What do you want Heterodox Academy members and affiliates to get out of this book?

Nicholas Christakis: Well, the book aspires to engage a set of big ideas about the evolutionary origins of a good society. It's a book about how and why human beings can come together so that the whole can be greater than the sum of its parts, and the role that evolution played in that, shaping us for example to be friendly or cooperative or to teach and learn from each other.

But actually, there is a connection to some of the political issues that are relevant to our country today actually and to many parts of the world, which is that whether they appreciated it or not, many of the fundamental liberal principles that the Founders at least of our country enshrined in our Constitution actually reflected and captured some of these deeply human qualities we have.

For example, the freedom of assembly that's in the First Amendment captures the fact that we, people, like to live in groups and we like to choose our friends. We are not like a herd of cattle just thrown together. We specifically choose who we want to associate with. This is actually very uncommon in the animal kingdom, this capacity to make friends, and yet, here it is in a transformed way captured in our Constitution.

Or the freedom of speech for example. One of the things that has made our species ascendant...the world over I was going to say ... or rather ascendant is too triumphalist a word... what I mean is one of the things that has made our species capable of living all over the world in what E. O. Wilson has called *The Social Conquest of the Earth*, is not the kind of bodies we have. We have pathetic bodies. Our bodies would only be suitable to live in one tiny little niche like in the African Savannah let's say. No. It's our capacity for culture, our capacity to teach and learn from each other which makes it capable – makes us capable of generating knowledge that we transmit across space and time.

This is also a part of the – our evolutionary heritage. It's very important. This capacity to teach each other things is very rare in the animal kingdom, only certain animals do it. But to do that, we have to talk to each other. We have to actually create a culture of like open communication. And this also you see is part of this sort of political principles enshrined in the First Amendment.

So I think there is some connection between the fundamental social and biological ideas I engaged in the book and let's say more modern contemporary political concerns.

Chris Martin: And one of the topics of your book, in fact the central topic, is human universals. Can you talk a bit about why you think some disciplines have evolved so that you're not encouraged to study human universals in those disciplines and other disciplines have taken a different route?

Nicholas Christakis: Well, this is actually an old problem in the sciences. I mean I think Darwin in a famous passage of one of his letters talks about lumpers and splitters. Some scientists look for generalizable principles and lump things together and other scientists are very interested in fine distinctions and split things apart. And both are important strands in a kind of scientific epistemology. They are – there's nothing intrinsically good or bad about either of those as far as I am concerned.

But there is a kind of a sense in which after a couple of centuries of success with splitting, we have divided matter into ever smaller bits. So we take matter and divide it into atoms or molecules and then atoms and then subatomic particles. And we take organisms and divide them into organs and then cells and then organelles within the cells and then macromolecules. And then now, we are looking at the biophysical interactions at the level of tiny forces between molecules intracellularly.

We have repeatedly divided nature into ever smaller bits in an effort to seek understanding and it has been hugely successful. But I think especially in the last 50 years, there has been what I call the kind of assembly project of modern science which is an effort to put the parts back together to make a whole. And you see this in many disciplines. You get systems biology for example or you get efforts to kind of understand how the component parts fit together. You get questions.

Initially, we understood the brain by looking at neurons. So Ramón y Cajal starts doing these fantastic cellular mapping by using silver of neurons within the brain. But now, we are asking, well, how did the neurons fit together to give us consciousness or memory or all these other properties where you assemble the components into parts or network science does this? How do you assemble networks of genes or networks of computers or networks of people to get this collectivity?

So there is this other strand that's ascendant right now and very prominent I think rightly so, which of lumpers. How do we put the things back together? And part of that – now, there was always a tradition of this. I'm sort of simplifying it. But part of it is relevant to what we are discussing because there are – there were always a tradition for example in anthropology of

trying to draw distinctions between groups. Let's spread out around the world. This was partly a colonial enterprise incidentally. Scientists sort of accompanied the spread of European around the world.

And so they said, "Look, other people in different part of the world live differently than we do. Let's study it." And you have Evans-Pritchard and Malinowski, Bronislaw Malinowski, and Ruth Benedict and all these famous anthropologists from hundred years ago spreading out around the world. Clifford Geertz and Levi-Strauss into the '70s for example, looking deeply at ways of living, at different cultures, different groups that live in different ways and pointing out that there's so much interesting variety in human beings.

But – and those people tended to reject the claim that there was anything deep fundamental and universal about human beings. And I think they were wrong. They over corrected. There are – there is interesting variety of across groups of people but there are also fundamental universal commonalities which if we lump together, if we look at all of these variety and try to find the underlying principles we can. And that is in fact partly what *Blueprint* tries to do.

Chris Martin: Yeah, I found anthropology to be probably the most problematic field in that area. I know Alan Fiske. I don't recall if you cite him in the book but at the moment, he seems to be one of the few cultural anthropologists who has entrusted in universals.

Nicholas Christakis: I mean there are of course – Donald Brown famously wrote a book in 1991 on cultural universals and there is a kind of ferment in anthropology. There is a tension even in that field but this is important because it does dovetail a little bit on some of the political issues that concern members of Heterodox Academy and that there's a kind of way in which we could be committed to fundamental liberal principles and this notion of our shared humanity, our common humanity, which is an idea that grows out of the enlightenment, an idea that sort of says that human beings show fundamental properties in common.

And I think that that is actually a very pleasing and happy thought. It's a recognition that there's more that unites us than divides us. It's a way of finding common ground with other people even if they have dissimilar ideas because after all, we have fundamentals that we all share, our propensity to love our partners, to be friendly with other people, to cooperate, to teach and learn from each other and so forth.

And this recognition that we all share something in common I think should be embraced. And this is one of the reasons that I find that sort of extremes in the political spectrum both on the far left and on the far right that tend to reject this idea, that tend to be interested in differences between people is I think both scientifically unsound and/or not unsound but it's scientifically negligent and philosophically dangerous.

Chris Martin: So another thing you talk about in the book is figuring out human flourishing and he used the analogy of a tree. You take it from the philosopher, Philippa Foot, and how a tree is flourishing because it's growing tall and that's what you expect trees to do. And so when you're talking about human flourishing, you can also look at what humans naturally do. But one of the

problems with human beings is that they sometimes flourish or get an internal sense of well-being from fighting wars against other people from forming a group and actually fighting a very violent war. So how do you reconcile this dilemma?

Nicholas Christakis: Yes. So one of the things, one of the qualities that is – I mean this is in a way one of the more depressing realizations in my own scientific career in the last 10 or 20 years is that it's sort of in-group bias or tribalism is also an innate inevitable quality in human beings that this us versus them, this we-ness, this fact that we like our own groups and not other groups.

This is also an old topic both philosophically and scientifically. There's a body of research called the Minimal Group Paradigm of psychologists beginning in the '70s who were able to show that even tiny differences that could be cultivated in, even arbitrary differences between groups, highlighting would make a group the in-group not like, reviled, the out group.

And more recent work done by people like Paul Bloom and others with small children show probably many people have heard of these experiments where you can randomly assign 3-year-olds to t-shirts of different colors. And just that trivial assignment and the kids know that they didn't earn these t-shirts, they didn't do anything to deserve them. They recognized it was random.

And nevertheless, all of a sudden, the green t-shirt-wearing kids think the blue-t-shirt-wearing kids are awful and should be punished and don't deserve any toys or stuff like that. I mean you just scratch the surface of the human being and you get this type of quality.

But it is also the case that you don't need – you don't – and there's a reason by the way that this evolves. So one of the theories, I think probably true that the evolution of this in-group preference that it evolved as a tool for reducing the scale of social interactions. So if you imagine in your mind the kind of large group of people, let's say arbitrarily a thousand people and you told those people, "You have to cooperate with each other," it would be very difficult to sustain preparation if each person had to cooperate with all thousand other people.

But one way to get more cooperation on average out of the thousand people than telling them, "OK, everyone, cooperate with each other," is for people to evolve the capacity to only – to drive distinctions between different groups and only cooperate with their own group. And if they do that, then all of a sudden, everyone is cooperating more because now instead of cooperating with a thousand people, you have ten groups of a hundred each cooperating among themselves. That reduction of scale is actually quite efficient from an evolutionary perspective encouraging this desirable property, which cooperativity even among the whole group at the price of cultivating this sort of in-group bias. That's one idea.

But others pointed out that even if that's the case, why is there – why do you revile the out-group? I mean why can't you just love your own group without hating other groups? Must the hatred of others necessarily be coupled with the love of ourselves?

And here also the variety of interesting ideas as to why and how this has evolved. One has to do with group competition and there are a number of interesting models. For example, by Sergey Gavrilets and others. And mathematicians have modeled this and there is some suggestion that in order to optimally evolve cooperation within the group, you had to have some kind of tension or competition with other groups.

Anyway, the bottom line is that it is the case that we evolve this capacity for tribalism. It's depressing. It's fundamental. It's inevitable. But there are ways out of this tribalistic tendency that we have. Other tools that natural selection has also equipped us with.

And let me share a couple of ideas about that. So imagine once again that you have some large group. For the sake of argument right now, let's say a nation, and then beneath that you have sub groups, sort of groups of people which could be defined by language or ethnicity or religion or occupation or sports teams that they like or whatever the hell it is. And then below that, you have individuals.

And right now we are saying that there's a problem because there is, sort of worldwide, there is a rise in nationalism and tribalism and kind of intergroup animosity for example. How can we cope with that?

Well, one idea is to step up a level and to take advantage of the fact that our species evolve the capacity to draw the boundaries between us and them essentially arbitrarily as we discussed with the t-shirt experiments. There's nothing sort of God-given about these boundaries, why we for example might care about language for instance. Why do we care about language and discriminate against people who speak the wrong language rather than discriminating or have the wrong religion rather than the people who are the wrong sports team for instance? That's arbitrary as we said with the t-shirt experiment.

So one idea is to exploit this capacity that we have and step up a level to the level of the whole group and say for instance, "We are all Americans, that's the boundary that matters so we don't need these other group boundaries."

And this has also been a part of our political tradition in this country. Alexis de Tocqueville talks about this, this notion of the melting pot, this notion of anyone can be an American. We're a nation of immigrants after all. Within two generations, people tend to assimilate this scene as a phenomenal accomplishment of the American experiment and is part of our heritage. So that's one tool we have.

Another tool we have however is to go down a level. So one of the things we haven't talked about is that one of the distinctive features of our species as I discussed is – that is part of this idea of the social suite is the capacity for individual identity.

Now, in our species, we do this with our faces. Every human face is different. Those portions of our genome that code for our faces are very variable and give us the capacity to each of us have a different face. All of our pancreases should work the same ideally but all of our faces should

look different ideally. This is actually an evolutionary luxury. Other animals don't communicate their individuality and say, "This is me, not someone else." Other animals don't do this.

And furthermore, we have the capacity not just to signal identity but to detect it. We have large portions of our brain that are devoted to the ability to distinguish among these faces. So that's also expensive evolutionarily speaking. So we have the capacity to be individuals which incidentally is paradoxically is crucial to our capacity to live together. This is another irony that we have to first be individuals in order for us to assemble ourselves into the kinds of societies we have.

Anyway, the point is, is that this also gives us a tool to efface tribalism because now we can go down a level to the level of individuals. And instead of thinking of other people are members of a group, we just – we are able to and we can think of each person as a person and this tool has been part of our tradition. If you think for instance of Martin Luther King's famous invocation that he looked forward to the time when his children would be judged by the content of their character rather than the color of their skin. This is in essence what King is saying. He is saying that each of us as an individual, you shouldn't judge people based on their group membership.

So to sum up, even though tribalism is a part of human nature, it's not the only tool we have at our disposal to live together. We have other tools as well.

Chris Martin: So there's this issue of life experience here. When I was reading the book, I realized you and I had somewhat similar childhood in the sense that we travel to a few different countries growing up and we made friends from – we made with people from different countries. And when you have that sort of experience, I think maybe you are a bit optimistic about the ability of people to cooperate.

But there are some people who do have provincial lives and I don't mean that in a pejorative sense. I just mean for a variety of reason, they don't travel, they don't really meet people from other countries and that's another reason for nationalism. So do you think there's a way to get people who don't necessarily travel or meet people from other races or cultures to get along better using the social suite?

Nicholas Christakis: Well, first of all, I would answer by seconding your notion that there's something tremendous about contact especially pleasant contact with dissimilar people. I think anyone who has had the experience of not only going to another part of the world but just interacting in a very human way with people who have very different backgrounds can come to the recognition that once again of this idea we discussed earlier of our common humanity, of our shared humanity because most people in fact care about very similar things. They love their partners and their families. They are interested in spending time with their friends. They live lives to the extent they can, seeking meaning. These are very fundamental qualities about human beings.

Now, it is true that travel is extremely helpful. There is a famous quote by Mark Twain that I just brought up that I'm going to read which is, "Travel is fatal to prejudice, bigotry, and narrow-

mindedness. And many of our people need it sorely on these accounts, broad, wholesome, charitable views of men and things cannot be acquired by vegetating in one little corner of the earth all one's lifetime."

So this idea too, in fact, there's another famous saying I think by Marcus Aurelius, one of the Roman Caesars, I don't remember, basically making the same point.

So your question however is what about people who let's say can't go somewhere else or haven't gone somewhere else? I don't think you need to go far in order to have this basic insight. Maybe it's enough to just go next door or to the adjoining state or just to make the effort to spend some time listening to someone who has dissimilar views than you but then also searching for areas of similarity.

This idea of being able to tolerate that someone who has many desirable and appealing qualities and ideas also share some – has some qualities and ideas that you don't find so appealing is sort of a mark of maturity, not just worldliness.

Chris Martin: Right. I mean it's an issue for me. You do bring up that if two cultures get along well, that's a good thing. I think it's especially an issue when there's a history of conflict between two cultures.

When I moved from Saudi Arabia to India as a child, I recall realizing that if you are an Indian, you were supposed to hate Pakistan which was really strange for me because some of my best friends were from Pakistan and Saudi Arabia.

Nicholas Christakis: Yeah.

Chris Martin: And I gradually realized over time that there's this history of hatred between the two countries and there's probably not much of an opportunity to contact each other.

Nicholas Christakis: Yes, but we are not bound by the past. I think that – I think what's relevant is what's happening now. Now, I'm not saying the past is unimportant. I'm not saying we should be ignorant of the past. Far from it. But I think a person who lives their lives dictated by events that happened a long time ago is missing the chance to have their own experience of the world and to interact with it afresh.

I don't want to come across as Dr. Pangloss as this is the best of all possible worlds and you know nothing. But I am aware, keenly aware that every century, every millennium is replete with horrors. There has been slavery and warfare and venal leaders and greed and utter destruction since time immemorial.

Tamerlane, as he swept across Asia, they would slaughter *everyone* in a city. They would surround the city and say, "Surrender or we will kill you." And they almost inevitably won and then they would create mountains of skulls or one or two hundred thousand people killed within a day or two. I mean just extraordinary destruction. Let alone the Second World War, let alone

all the violent and horrible things that any person has the pogroms and the inquisitions and slavery and colonialism and my god, we are also awful, we humans, aren't we? I mean we are just a piece of work.

But the truth is, even despite all of that, and incidentally, those are things that have occurred in historical time, my book is focused on the long arc of our evolution of a hundreds of thousands of years where we didn't engage in such mass warfare. We didn't have such weapons of destruction and conquest was not such an issue.

But even despite all of that, we are also good. And in fact, I would argue that fundamentally, the good must have outweighed the bad because if for example, every time I came near you, you killed me or filled me with fake news or falsehoods or were mean to me, as a species we would be better off being solitary animals.

So the benefits of a connected life must have outweighed the cause. This doesn't mean they weren't cause but the benefits are also there. And I think we have this tendency to ignore those benefits, to both scientist and the person on the street have this tendency to focus on our propensity for evil and violence and selfishness and tribalism and overlook our equally strong, in fact I would argue stronger propensities for love and friendliness and cooperation and teaching, which also are parts of human nature and frankly deserve their due.

Chris Martin: Towards the end of the book, you talk about four acquisitions that are leveled and people who study human universals and I want to talk about all four of them. But one of them is positivism, and that's the idea that everything has to be measurable if you want to have a serious scientific discussion about it.

Nicholas Christakis: Well, generally, that the world can and should be appreciated through the scientific method.

Chris Martin: You have a good elaborate argument about how to deal with positivism or the accusation that you're a positivist and that's a bad thing. And I agree with that. But did you ever considered in convincing a non-positivist or anti-positivist who have some degree of positivism as pragmatic or useful?

Nicholas Christakis: Maybe not. I don't know. But I suppose one strategy in interacting with someone who rejects altogether claims about the objectivity of the world is to inquire of them how they think we should go about appreciating the truth of the world.

I mean there are some people for example who believe that the world – there's revelation. There's a kind of religious – religion is the path to understanding the truth of the world. Other people believe in force. Mate makes right. That's the way we are going to determine whoever is powered gets decide what the truth to the world is. And that science therefore has been utterly corrupted by the fact that it is a product of powerful people let's say.

Incidentally, there's some truth to that. I mean there's no doubt that science has been affected like any other human activity by the frailties and the biases of step – afflict all human activities. But that doesn't speak to whether there is in fact an out there out there. I think there is. Nor does it speak to the fact that we can if we wish apply the scientific method. I mean all the kind of high school stuff and college stuff that everyone learned about the philosophy of science that there are theories that are tested against empirical data and there's constant replication and testing for generalizability and the sort of careful measurement and all the kinds of elements of the scientific method. But that is the best way and in fact it is the most successful way to appreciate the truth of the world.

And to skeptics, I would even say how do you think the technology that you are listening to us right now was made? It was not made by revelation and it was not made by someone sort of declaring that this technology would come to pass. It was made by first, by British scientist and French scientist discovering electricity 200 years ago. And then a whole bunch of other scientists and engineers and other people working for hundreds of years suddenly brings it – makes impossible for me to talk to you. And if they were not right, it wouldn't work. I mean it's – the proof is in the pudding.

This is the other thing that I think is very valuable about science is that realities are cruel mistress. You can't wish something to be the case. It either is or it isn't the case. And if you speculate wrong, you will quickly be disproven or inevitably be disproven maybe not quickly. There are falsehoods, scientific falsehoods which can last a long time.

Chris Martin: Yeah. As an aside about audio technology, I read an interesting article about how World War II was a factor and how Germany developed the best loudspeakers because they wanted to broadcast Adolf Hitler's voice for crowds and then ...

Nicholas Christakis: Oh, wow!

Chris Martin: Britain developed some of the best audio equipment to spy on the Germans.

Nicholas Christakis: Yeah. Unfortunately, warfare ...

Chris Martin: So, interesting history there.

Nicholas Christakis: I mean warfare unfortunately, I mean this is the other truth also. I mean there is – there is a lot of – I mean we are moving very fast. I'm well aware or reasonably well aware of the history of science and many technological innovations have been products of the necessity or the reality of war.

Famously, Euripides was – made scientific discoveries because he was in the service of the – I think he was the monarch in Syracuse and of course the Medicis hired Leonardo Da Vinci and part of what Leonardo was trying to do is develop machines of war. And the atomic age was brought in by the Americans supporting the development of Manhattan project. And it goes on

and on. Nitrogen mustards that's widely used as a chemotherapy first were developed as poison gas in World War I.

So there is no doubt that the seeking of a technological advantage due to war has been a powerful impetus in scientific discovery. And part of that is science is often expensive and you need a state actor to support it either a monarch like the Medicis or wealthy democracy like ours that has the resources to support this activity.

Now, it's not the only way to be a scientist. There are many discoveries have been made either just by thinking, Einstein for example made, just thinking about him almost brings tears to my eyes, didn't need a ton of resources to make his key discoveries, and backyard scientists and so forth.

But anyway, there is an intersection. You are right between warfare and science also.

Chris Martin: Yeah, Einstein definitely lived in a different world. Anyway, thanks for joining us on the show. It has been great having you. Any final words about your next project?

Nicholas Christakis: I have a new idea for a new book. I run a lab. My lab is called the Human Nature Lab at Yale University and the lab is engaged. I think of my lab as sort of the island of lost toys. I have brilliant young people who feel like they are misfits in their fields and they find their way to my lab and they lift me up and they are creative and inventive and they just need kind of a nurturing environment in which to thrive intellectually and scientifically in which I try to provide.

So I feel blessed to work with these people and we are working in many areas. We are working in social robotics. We are working in the microbiome. We are working in public health intervention in the developing world. We have a whole raft of network science projects and we have lots and lots of crazy ideas.

And in addition to that, I do try to write books but I only produce a book once every 10 years. So it will be a while before the next one comes out. But the lab is active scientifically and I am enormously proud of it.

Chris Martin: Great. Well, thanks again for joining us.

Nicholas Christakis: Thank you so much for having me, Chris.

Chris Martin: Next book is *Blueprint: The Evolutionary Origins of a Good Society*. There are many parts of *Blueprint* that we didn't talk about so if you'd like to hear more about the book, you can check out recent episodes of two other podcasts in which Nick talked about this book. One of them is the Making Sense Podcast with Sam Harris which has a longer episode. The shorter episode is on The Psychology Podcast with Scott Barry Kaufman.

You can also follow Nick on Twitter @NACristakis. The show notes for this episode will include a link to Donald Brown's book Human Universals which Nick mentioned and also a link to a more recent book that I recommend, *Our Common Denominator: Human Universals Revisited* by Christoph Antweiler.

The show notes also include a link to *Let's Shake Up the Social Sciences*, an essay by Nick Christakis. That might be of interest to those of you who are in the social sciences.

As always, if you enjoy the show, please leave us a review on iTunes because it helps other people find out about the show. And you can reach me at Podcast@HeterodoxAcademy.org. And you can follow me on Twitter @ChrisMartin76.

Thanks for listening.

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