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MBS (00:00):

I'm seven and I'm playing cricket in my backyard in Canberra and batting. And my 70 year old grandmother, Mader is bowling. I hit an amazing shot. It's hard and it's low, it's bound for success and granny who is the most competitive person I have ever met hurls herself sideways and plucks an amazing catch inches from the ground and I utterly lose my mind.

MBS (00:31):

I throw the bat, I cry, I stump off the field. I lock myself in the room, turns out I was as competitive as my grandmother, but I wasn't much of a gracious loser. Welcome to 2 Pages with MBS. I'm Michael Bungay Stanier and this is the podcast where brilliant people read the best two pages from a favorite book. A book that has moved them, a book that has shaped them.

MBS (01:00):

Nicola Raihani is professor of evolution and behavior and a royal society university research fellow at University College in London. She is the author of The Social Instinct: How Cooperation Shaped the World and this book is newly released into the world. Now, as you've no doubt already figured out because you're fast and you're smart, Nicola is a fan of cooperation, but for a counter-intuitive reason.

Nicola (01:26):

Cooperation is often an effective way to compete. And that's why cooperation has thrived on earth is that it affords entities whether they're genes, or cells, or organisms, a better means by which they can compete with other entities.

MBS (01:44):

Competition through cooperation. I mean, that is not immediately obvious to me. And Nicola is going to be reading from Charles survival of the fittest Darwin. So how's that going to work?

Nicola (01:55):

When you actually see David Attenborough presenting on the television and he's explaining why an animal is doing the thing that is doing, the kind of science that people like me are interested in is figuring out the answer to that question of why is that creature doing that thing? And the behaviors that I became especially interested in quite early on in my academic career was social behavior.

Nicola (02:18):

And the reason that I think it's so interesting is that it seems to pose a bit of a challenge to Darwinian theory of evolution by natural selection because a very

narrow reading of Darwinian theory would tell us that individuals are self-interested, they're driven to compete as every individual for himself.

Nicola (02:41):

And in some ways when you then start to look around and see all these examples of helping behavior in nature, it's actually to some extent there's a bit of a paradox there of how can we reconcile this apparent altruism with the dominant theory of how we understand the world, which is Darwin's theory of evolution by natural selection.

Nicola (03:03):

And, in fact, we can reconcile social behavior with Darwinian theory, but figuring out exactly how it all works or no mechanistically what psychological mechanisms are involved and hormonal mechanisms and things like that, that's been sort of my interest in a way for the past, gosh, several years.

MBS (03:23):

I mean, I feel like we're born with some wiring that makes us kind of to strive to compete. Do we have wiring that helps us become better at cooperating or is it a social skill that we learn?

Nicola (03:38):

I think it's both basically. So humans, it wouldn't come as any great surprise to the listeners of this podcast to know that humans are one of the most social and cooperative species on this planet. And that is evident in literally everything we see and do. I mean, if you just look out of your window wherever you're sitting right now, you'll see evidence of cooperation all around you.

Nicola (04:03):

The buildings that are outside and the cars that might be parked on your drive or anything like that, none of these things, these achievements that we have

collectively managed to achieve as a species would have been possible without a cooperation. And even if you think about things that are just as mundane as a morning commute, getting on your train and commuting into work, even something like that would not be possible without cooperation.

Nicola (04:33):

And there's a really lovely quote by an anthropologist called Sarah Blaffer Hardy where she talks about how if you were to get on a plane full of chimpanzees that it wouldn't be a very pretty sight by the time that that plane reached its final destination. We are extraordinarily cooperative and tolerant and something which is present from birth.

Nicola (04:58):

And that we know that because of clever experiments that people have done with very young children and infants, but it is also something which is shaped during development and which is sensitive to experience, and which is also sensitive to the cultural middle year that people find themselves in. So the way that cooperation is expressed varies quite a bit in different societies and even within societies around the world. And so I think it really is the answer to the question is it's a bit of both really.

MBS (05:30):

Yeah. That's almost always the answer to scientific questions. It's a bit of both. Nicola, how do you help somebody like me navigate the tension between cooperation and competition? Well, actually, let me ask you a different question before I ask you that. Is that actually the tension between cooperation and competition or am I creating a false dichotomy here?

Nicola (05:55):

I think at its heart cooperation is a means by which organisms are more effectively able to compete. And so what looks like cooperation through one

lens will be felt as competition at another. And so there's one really nice example that I actually found when I was writing my book, which was about back in the day when people could actually go anywhere, if a driver is arriving at the airport to pick up passengers from the plane.

Nicola (06:25):

And it was a news article complaining that what the Uber drivers were doing was when they arrived at the airport they would turn off the app so that it seemed there wasn't very much availability of Ubers. And then once search pricing had been achieved because the passenger is coming off the plane looking for either, when the search pricing came on, then everybody turns their app back on and then they take the passengers who pay a bit more to be taken home.

Nicola (06:50):

And in some ways it's very difficult to say is this corporation or on the one hand you might think, well, this doesn't sound particularly cooperative, you're kind of you're manipulating the systems that you can exploit the passengers essentially. But on the other hand the Uber drivers do have to work together to achieve this. And there is a temptation for each individual driver to turn their app on a bit sooner just to make sure that they don't miss out on getting a fair at all.

Nicola (07:21):

A lot of the time whether we see something as being cooperation or competition with the implication that competition is harmful, it really depends on the lens we're taking to look through and where we kind of feel the benefits ought to lie. And in some ways you could say nepotism or corruption are also forms of cooperation. It's where help is being directed to one individual or a subset of individuals.

Nicola (07:53):

But where we kind of at least in the west we see this as in individualist societies people often see this as a negative thing because we have that expectation that benefits should be distributed impartially among every member of society and not only kept within your family circle or within your network of friends. And so not every society adheres to that moral norm.

Nicola (08:20):

So some societies is actually frowned upon if you don't help your friends or if you don't help your family to get ahead, that's the moral imperative. And so I think it really depends. I think cooperation is ultimately a form of competition in an evolutionary sense. It's the way that individuals can ensure that copies of their genes somehow filter through and are represented in subsequent generations of the gene pool. And so it's like flipping a coin essentially, the two sides of the same coin.

MBS (08:59):

Yeah. I hear you. I also think about people talk about the tragedy of the commons as a place where the tension between self-interest and cooperation plays out and their stories always seem to end badly. I don't know many stories of the comedy that are like, the success of the common.

MBS (09:19):

We all figured out how to share the stuff and nobody took advantage of other people's graze and kind of overgrazed there part of the common and triggered this kind of vicious circle of competition that has a cooperative structure fall apart. Is there anything in the work that you've done that can reflect on the tragedy of the commons and how that works and maybe how it can be managed in a way that stops it being a tragedy?

Nicola (09:45):

I think actually there are several examples in the world around us of cases where we have successfully resolved tragedies of the commons. And perhaps we don't notice it because we don't notice when things are going right necessarily. So, for example, just the fact that you can walk down a high street and walk into a shop and there'll be goods on the shelves and you might take out your money and pay for the goods.

Nicola (10:16):

And then there'll be an exchange which happens and everything kind of goes smoothly in 99% of the time, in some senses you can see that as a system where it could be vulnerable to exploitation by cheating actors. But where by and large the system is maintained in a cooperative state.

Nicola (10:36):

The fact that we've put money in banks and we trust banks to look after our money for us and we then withdraw the money when we need, it is also an example of where there is definitely temptation to exploit, but whether the tragedy has been resolved. And so I think we are pretty good at resolving tragedies of the commons and we use the tools at our disposal to do that.

Nicola (10:58):

And one thing that humans are really good at is changing the rules of a game. And by which, I mean, we invent formal institutions that govern the rules of our interactions and that help us to achieve cooperation in scenarios where actually it seems like cooperation might be relatively difficult to achieve.

Nicola (11:22):

And so we have rules around, for example, we have formal institutions like police, and courts, and things like that, which are there to stop individuals from

exploiting the system of cooperation. What was the other part of the question? Where does it go wrong?

MBS (11:42):
I mean, all of those are great examples like law and money. I mean, they're kind of an invisible structure that we've all bought into and gone look we'll that to govern our behaviors. And there's a collective agreement within now cities and countries and internationally for the most part to do that. They've also just been around for a very long time.

MBS (12:04):
I mean, I'm not sure when the Magna Carta got things rolling, 1600 something perhaps and money longer than that. You talked about humans being really good at inventing games. Are we good at inventing games that stick for the first generation? I'm trying to think of a more contemporary example of something that's been built that has successful cooperation with all the tensions that the competition that might be pulling it a different way.

Nicola (12:35):
I'm just going to quickly say something else, which it relates to what you've just said, which is that our ability to resolve cooperative problems or collective action problems has been around for a lot longer than any of those formal institutions that I mentioned. And even before things like the Magna Carta and things like that.

Nicola (12:54):
So if you look at often people use contemporary [inaudible 00:13:00] societies to try to understand something about how pre-industrial humans, societies might have looked and worked and things like that.

Nicola (13:10):

And obviously it's not saying that people who are living in contemporary hence gatherer societies are somehow pre-industrial humans or contemporary societies, but it gives a window into how might our species have grappled with these problems that we've always faced well before industrialization or agriculture or anything like that. And in fact, those rules governing social behavior and cooperation have been around for a lot longer than any of those formal institutions that I mentioned.

Nicola (13:43):

So, for example, one main sort of solution to the two collective action problems is to basically have social norms around equality that are enforced by everybody in within a society. And so, for example, if someone catches big game and they bring it back to camp, there is an expectation that the game will be shared and will be shared equally among everyone.

Nicola (14:19):

And there were often quite strict rules around grandiose or self-aggrandizing behavior. And that's quite often strictly circumscribed and prevented and no one is really allowed to do what's often called bakeshop behavior. And so there are lots of rules and norms and systems around how does our society work?

Nicola (14:44):

What is the system that everybody can buy into that even though we might be individually off if we were to able to circumvent the system it's in our interest. Upholding the system as long as everyone else that holds it is in our interest, essentially.

MBS (15:03):

So many interesting intensions that play here, Nichola. I can understand why this has been a fascination for you. You talked about how cooperation looks different in different societies because we have somewhat different moral

codes that shape what competition and, I've forgotten the word, that shape what competition and cooperation look like in that kind of different setting in a different context.

MBS (15:33):
What I'm hearing from you is we have deep wiring that allows a kind of a tension between cooperation and competition to play out because cooperation actually turns out to be a competitive advantages when you kind of wind the tape just a little bit further forward. So you've got this deep wiring, but then you've got the kind of immediate social influences around, well, I grew up in Australia, and then in England, and then in the U.S., and then in Canada.

MBS (16:03):
So I'm thoroughly westernized in terms of how I think about stuff. And you have somebody growing up in Japan, or in the Middle East, or in Africa who have different experiences of what competition and cooperation look like in their cultures. Are the cultural variations just subtle variations on what our wiring is or does the cultural variations almost trump the kind of foundational wiring that we have? It's a very long question. Does it make sense?

Nicola (16:33):
Yeah. I think it does make sense. So I talk about this a bit in the last chapter of the book. And, again, like all those questions, the answer is this whole thing going on. So essentially, across different societies there is variation in what some people have called the scope of moral regard.

Nicola (16:57):
Essentially, you can think of that as being if you imagine yourself in the center of your universe and everybody else in your universe is somewhere standing inside concentric circles. They get further and further and further away from you. So closest to you there are people like your friends and family and your

very nearest and dearest. And then as you get further and further out you're getting more to people like in your neighborhoods, your country, eventually everybody on the whole of the planet.

Nicola (17:27):

One of the biggest sources of tension and disagreement in politics, which is basically politics is just, what was it famously called? The science of deciding who gets, what, how, and when, or something like that. So basically politics is what is the science in some way of cooperation.

Nicola (17:47):

And one of the biggest tensions that is the extent to which people feel that any benefits of cooperation, or any resources, or to be either kept within a very small circle of close family and friends, or whether they ought to be whether you want to more freely distribute those kinds of benefits or resources that you have among all people that you might interact with.

Nicola (18:15):

So, yes, everyone will prioritize their friends and family to an extent. But if you were to ask somebody, if you were to ask someone a question like is it okay to lie in court to protect your friend who runs someone over when they were driving dangerously? Or is it good, is it the right thing to hire your nephew for a job rather than an equally well-qualified stranger or even a better qualified stranger?

Nicola (18:47):

The answers you get to those kinds of questions are different and are not universally endorsed depending on who it is you're asking very, very broadly. We know that the answers to those kinds of questions or that scope of moral regard varies to some extent with people's political leaning.

Nicola (19:07):

And it also varies across countries and across what some people have called the individualist collectivist dimension whereby political conservatives and also people who live in more collectivist societies tend to have a slightly smaller scope of moral regard where the emphasis is on, I help my friends and family.

Nicola (19:29):

My obligation is to my friends and family and not just to any random person, whereas a more individualist and or politically liberal leaning it would be more likely to say that they have a moral obligation to behave impartially rather than to favor people that are inside that small scope of moral regard. So there is some cultural variation, but we can also shift where people fall on that dimension by shifting what's called material security.

Nicola (20:03):

Basically material security is just, have you got the stuff you need to survive? Have you got food? Have you got water? Have you got shelf shelter? Are you going to be safe from threats, safe from illness? As material security increases, people can increase the scope of their moral circle a little bit more and they can take more risks essentially by cooperating with strangers and by extending cooperation to people they don't know and they haven't met.

Nicola (20:29):

And what we saw actually in the COVID situation is that material security for a lot of people shrank. No matter where we lived all of us will have less material security because everything was so uncertain. And actually what we saw in the wake of COVID was a resurgence, a very hyper local cooperation. I mean, I don't know about where you live, but where I live lots of very hyper local neighborhood mutual aid groups sprang up with totally rational response to a lowered sense of material security.

Nicola (21:01):

And so there's nothing sort of hardwired about these sort of scopes of moral regard if that's how you want to think about them. They're not sort of ingrained, but I think they are quite circumstantial. And we can see that when you get massive circumstantial shifts like we did with the pandemic. Sometimes those circles will shrink quite rapidly even in societies where they would ordinarily be quite wide, if that makes sense.

MBS (21:28):

It does. Nicola, tell us about the book you've chosen to read for us?

Nicola (21:33):

So, well, perhaps predictably I am going to read two pages from Charles Darwin on the Origin of Species.

MBS (21:40):

That's a big famous book. I love that you've picked it. When did you first have that book come into your life? Was it as an early university student? Was it some other time? When did it show up?

Nicola (21:50):

Yeah. I would have read this as an undergraduate. And I think basically it sounds like an intimidating book, but I actually would really recommend anyone to pick it up and just leaf through it because Darwin was an amazing communicator and often quite funny, actually.

Nicola (22:11):

And his descriptions of natural history, some of the descriptions he have of just how a species behaves, what he observed. He was an amazing natural historian. He was an amazing observer and his writing is so rich. And I actually think it's an

easy to pick up and put down book actually and that there are some real hidden gems in here.

MBS (22:36):

I love that. When you first read it, was it something that you're like, look, I've known about Darwin so it just confirms a bunch of stuff or did it actually kind of shake something up for you?

Nicola (22:49):

No. I think the biggest thing for me that I find even now reading Darwin is just how right he was about so many things. And if think about how little we knew about the mechanisms of inheritance, Darwin had no conception of the gene. The gene was something which we didn't have a conception of this kind of discreet unit of inheritance. And Darwin certainly didn't know about this.

Nicola (23:19):

And yet despite the fact that he didn't really understand the mechanisms by which variation could be inherited from parents to offspring, he nevertheless was so prescient about so many things. And I think the more we discover in our field of scientists, the more we kind of find that, oh, here's a passage where Darwin kind of foreshadowed this discovery that we've only just now made in 2021. So I think it's quite humbling-

MBS (23:51):

Damn it. That man has been everywhere.

Nicola (23:52):

Yeah. I think it's just quite humbling and for me it gets one because I started as a field biologist and now obviously I work on humans much more. But I think for me it reminds me, and this is something which I've always thought anyway, but I think especially when you're working on non-human species, which I have

worked on non-human species quite a bit and there is no substitute really for just observing and getting to know the species that you're working on.

Nicola (24:26):
And I think that's even true if you're working on humans to be honest as well, but basically just taking the time to observe and to document the richness of the natural world I think is becoming less and less common. And yet look at the kind of insights you can glean if you do that.

MBS (24:46):
Well, why don't I make a kind of formal introduction so we can set this up. Nichola Raihani, whose new book, The Social Instinct: How a Corporation Shaped the World, is reading from Charles Darwin's most famous book, On the Origin of the Species. Nichola, over to you.

Nicola (25:10):
No doubt, many instincts of very difficult explanation could be opposed to the theory of natural selection. Cases in which we cannot see how an instinct could possibly have originated. Cases in which no intermediate gradations and known to exist. Cases of instinct as apparently such trifling importance that they could hardly have been acted on by natural selection.

Nicola (25:32):
Cases of instincts, almost identically the same in animals so remote in the scale of nature that we cannot account for their similarity by inheritance from a common parent, and must therefore believe that they have been acquired by independent acts of natural selection.

Nicola (25:49):
I will not here enter on these several cases, but will confine myself to one special difficulty, which at first appear to me insuperable and actually fatal to

my whole theory. I alluded to the neuters or sterile females in insect communities for these neuters often differ widely in instinct and in structure from both the males and fertile females. And yet from being sterile, they cannot propagate their kind.

Nicola (26:22):

The subject well deserves to be discussed at great length, but I will hear take only a single case, that of working or sterile ants. How the workers have been rendered sterile is a difficulty, but not much greater than that of any other striking modification of structure. For it can be shown that some insects and other articular animals in a state of nature occasionally becomes thorough.

Nicola (26:47):

And if such insects have been social and it hadn't been profitable to the community, but a number should have been annually born capable of work, but incapable of procreation, I can see no very great difficulty in this being effected by natural selection, but I must pass over this preliminary difficulty.

Nicola (27:09):

The great difficulty lies in the working ants differing widely from both the males and the fertile females in structure as in the shape of the thorax and the destituted wings and sometimes have eyes and in instinct. As far as instincts alone is concerned, the prodigious difference in this respect between the workers and the perfect females would have been far better exemplified by the high fee.

Nicola (27:36):

If a working ant or other new or insect had been an animal in the ordinary state, I should have unhesitatingly assumed that all its characters had been slowly acquired through natural selection, namely by an individual having been born

with some slight profitable modification of structure. This being inherited by its offspring, which again, varied and were against selected and so onwards.

Nicola (28:02):

But with the working ants, we have an insect differing greatly from its parents, yet absolutely sterile so that it could never have transmitted successively acquired modifications of structure or instinct to its progeny. It may well be asked, how is it possible to reconcile this case with the theory of natural selection?

Nicola (28:26):

First, let it be remembered that we have innumerable instances, both in our domestic productions and in those in a state of nature of all sorts of differences of structure, which have become correlated to certain ages and to either sex. We have differences correlated not only to one sex, but to that short period alone when the reproductive system is active as in the natural plumage of many birds and in the hooked jaws of the male salmon.

Nicola (28:54):

We have even slight differences in the horns of different breeds of cattle in relation to an artificially imperfect state of the male sex. There are ox of certain breeds have longer horns than in other breeds in comparison with the horns of the bulls or cows of these same breeds, hence I can see no real difficulty in any character having become correlated with the sterile condition of certain members of insect communities.

Nicola (29:19):

The difficulty lies in understanding how such correlated modifications of structure could have been slowly accumulated by natural selection. This difficulty, though appearing insuperable is lessened, or as I believe, disappears

when it is remembered that selection may be applied to the family as well as to the individual and may thus gain the desired end.

MBS ([29:57](#)):

Fantastic. I mean, anybody who uses the word insuperably twice in a single passage gets my vote right away. That's so interesting. I mean, I so admire him for taking on the hardest challenge to his theory is that here's the thing that would make my theory seem possible. So let me try and take it on. Now, I can guess what your answer is going to be, but I want to ask it, what about that passage in particular strikes a chord for you? What grabs you, Nichola?

Nicola ([30:28](#)):

Well, it goes to the heart of the question, which has interested me for my academic career, which is how can we reconcile acts of apparent altruism and this case, the Darwin, the apparent altruism is developing into a sterile cast with the theory of evolution by natural selection. And I like the passage for two reasons. One is the one that you mentioned, which is Darwin was never afraid of confronting the difficulties with his theory.

Nicola ([30:55](#)):

And in fact, he actively laid them all out so that he could try to resolve them himself. And then the other thing I like about the passage is that he actually then foreshadows the development of another massive theory in social evolution, which was only really formalized in the 1970s by Bill Hamilton, which is called inclusive fitness theory.

Nicola ([31:21](#)):

And it's this idea that although Darwin didn't really have a conception of a gene, a gene that's present in my body doesn't really care how it makes its way into subsequent generations. So it can make its way into subsequent generations

through my offspring, but it can also make its way into subsequent generations through the offspring that my relatives have.

Nicola (31:43):

And in some cases, it might be beneficial for me from an evolutionary perspective to forfeit my own personal reproduction in order to help other individuals to breed. And that is what we see in the social insights. And that is how we now understand the appearance of these sterile workers that have no reproductive future of their own, but they gain fitness or inclusive fitness because they help scores of relatives to survive. And I think it's just amazing that he was able to see that in a way all that time ago.

MBS (32:23):

Right. 110 years before the actual theory was formalized because the book came out 1859, I think. So that is amazing. Nichola, I mean, we've talked about kind of our wiring and we've talked about kind of the moral context in which we exist. Are there kind of specific leavers for one of a kind of better word that feels very mechanistic that we can use in our communities or in our work to try and increase cooperation?

MBS (33:02):

I mean, if you work on the assumption that more cooperation is probably a better thing, and that's kind of where I'm going to put my money. So how do I individually try and up the ante on cooperation or do I just have to leave it to inheritance and the moral code into which I'm born?

Nicola (33:22):

No. I think there are things that people can do. I mean, there was a really neat experiment that was done in 2013 by an energy company actually. And they wanted people to voluntarily install a demand reduction device that would switch off their air con essentially at times of high demand. And they weren't

sure how to get people to install this thing because obviously no one wants to have their air con switched off when it's too hot or something like that.

Nicola (33:51):

So the energy company had tried offering a $25 incentive and then they teamed up with a bunch of research scientists who said, instead of giving this money incentive, why don't you try another thing? So this was done in blocks of flats. And they said, why don't you put a signup sheet in the entrance to the flat and let people sign up so that people can see who signed up to do this.

Nicola (34:15):

And they can also see who among their neighbors has done it. And what they found is that giving people the possibility to advertise that they were doing this and this pro environmental thing signing up to this demand reduction scheme was seven times as effective as offering the cash incentive.

Nicola (34:32):

So giving people opportunities to signal that they are behaving cooperatively can be helpful. Another kind of nice anecdote that I think illustrates how you can engineer cooperation, if you feel, although this seems quite Machiavellian, if you were going to do it in a workplace, but I don't know if your listeners will be familiar with a program called The Apprentice. Does that ring a bell for you?

MBS (34:58):

It does. I mean, I've seen American versions of it, the former president, of course. I've seen, was it Silver. He's a British guy.

Nicola (35:07):

Alan Sugar.

MBS (35:08):

A stranger at the moment. Same with my parents. That's right, Sugar. So I'm seeing Alan Sugar down in Australia doing it.

Nicola (35:14):

I'll explain the products quickly. Basically, The Apprentice centers around a cohort of contestants that are trying to compete to get hired by Donald Trump in the states or Alan Sugar in the UK and other places. And every week someone gets eliminated from the competition.

Nicola (35:31):

So every week in The Apprentice, they contestants are divided into two teams and they have to basically do a business challenge like design and market a new chocolate bar, design and market and new brand of shower gel and something like that. And the team, which makes the most money-

MBS (35:49):

It's a perfect laboratory of cooperation and competition. You must be doing this for your research because I couldn't be better.

Nicola (35:56):

I actually do like watching it just for the reason that it really illustrates how important between group competition is the fostering cooperation. So basically what happens every week is that the two teams compete and the winning team, once one team has won, the winners in that team are safe. They're not going to get evicted. They're going to go on and be in next week's show.

Nicola (36:18):

And the people in the losing team get called into the boardroom and one of them will get fired and will get evicted. And what you actually see is that when

there's between group competition, so when the two groups are competing against each other, then people tend to cooperate within their group. They try to help their group to be the winning group so that they don't have to be in the losing team.

Nicola (36:41):

And cooperation is quite high. When they get into the boardroom, once they're in the losing group and there's no more rival groups competes against, and now it's all the competition is actually within that group because one of them is going to get evicted, then you really see how much people turn on each other and all the backstabbing comes out and the recriminations and accusations are flying around the room.

Nicola (37:03):

And you just see how important having another group to compete against can foster cooperation within a group. And when that between group competition is taken away, then you're more likely to be left with competition within the group run the corporation. So if you were very Machiavellian as a box, you could potentially set up tournaments like that, I suppose, but I'm not sure that I would endorse that.

MBS (37:29):

Well, there's a whole field of behavioral economics that kind of looks into some of this stuff. And it's one of the constant debates in that world, which is around the morality of nudging because it's all those nudges, which means that I kind of know what's best for you. So I'm going to set it up so you behave in a certain way. And is it paternalistic?

MBS (37:51):

Is that a good thing? Should you allow people to be free agents and choose their own destiny? Does that even exist? It's a whole complicated thing. Nichola,

if I can pull right back, I'm wondering, you've been focused on cooperation as your kind of area of research and the thing that you've been working on for quite a while. Is there anything that's kind of caught you a bit by surprise by what you found out about cooperation?

Nicola (38:17):

Yes. And in fact, this is something that I have been working on in tandem. So one of the great institutions that we think is important for fostering cooperation, not just in humans, but in some other species as well is punishment. And so a big strand of my research has explored how and why punishment might ever promote cooperation.

Nicola (38:44):

And quite early on in my career, there were a bunch of very influential papers that showed that if you had people, human students play, what's called a public good scheme, which is a cooperation game where you're given some money by the experimenter and you can either invest in a joint project which benefits everyone in your group, or you can keep the money for yourself.

Nicola (39:09):

And that's kind of free riding on the contributions of other individuals without contributing yourself. And so in those kinds of games, cooperation might usually start out at intermediate levels, but it often diminishes even successive rounds as the people that are contributing realize that they're being exploited by free riders. And in the early 2000s, there were two economists called [inaudible 00:39:36].

Nicola (39:38):

And they showed that if you introduce a punishment option into that game, whereby you allow people to pay a small amount of their money to find free riding members of the group, then that can actually sustain cooperation in

these multiplayer social dilemmas. One of the most interesting things I think that we've come to realize in the last sort of maybe two to three years, is that actually punishment doesn't work in the way we thought it worked.

Nicola (40:15):

And the threat of punishment can be quite effective in inducing people to cooperate. But when punishment is actually executed, it can cause cooperation to completely unravel, because people descend into cycles of punishment and counter punishment. And it essentially develops into feuds rather than into this utopia where everyone cooperates. And understanding why that's the case.

Nicola (40:44):

There's a saying in chess called, "The threat is stronger than the execution." And I think that's really the case with punishment in these kinds of games, for humans, at least. It seems like having the threat of the punishment there is quite helpful for enforcing cooperation, but actually enacting that punishment can be really counterproductive. And I think we're only just starting to understand the reasons why that might be.

MBS (41:12):

How do you use it then as a tool? Because if it's a threat that's never enacted, when people misbehave and then not then punished, doesn't that also unravel the cooperation or does somehow the threat continue to exert a degree of force?

Nicola (41:33):

I think we have to be quite careful about extrapolating from economic gains to societal problems. So just as a disclaimer, I would say that right at the start. But I think having read quite a bit on this topic and looking at the kinds of insights we have from, if you want to design a penal system that reforms criminals and

converts them into the equivalent of cooperators in these public goods games, often just having really severe punishment is not very effective.

Nicola (42:09):

And so the Western model for penal systems or the dominant Western model, which has focused really heavily on retribution and pays hardly any attention to rehabilitation and restorative justice is a massive failure. If we think that the policy goal of penal systems is to make society more cooperative and to have fewer criminals, then by that measure, our panel systems don't work.

Nicola (42:36):

And ones that focus much more on rehabilitation and on finding a way for people to reenter back into society and not just focus on an eye for an eye and a tooth for a tooth tend to be much, much more effective at actually reducing recidivism. And I think what we see in the economic games is that people don't accept being aggressively punished by peers. I mean, you would think about it yourself.

Nicola (43:09):

If you've ever kind of admonished anybody for doing anything, or if you've been admonished for doing anything yourself like running through a red light on your bike or any little thing you might do, if you tell someone for doing that, oh, you shouldn't have done that. Or if you get told by someone you shouldn't have done that, that's kind of a form of punishment of the variety that we study in our games and you barely ever do people turn around and say, oh you're quite right.

Nicola (43:30):

I'll never do that again. I mean, if you want to have to get into an aggressive fight, it's a very, very good starting point. So I think really, we don't respond to

those kinds of acts of punishment with just sort of rolling over and saying you're right. I was wrong. I will never do that again.

Nicola (43:50):

People often respond quite aggressively and just retributive punishment, I don't think is a good way to change people's behavior in the future. You have to offer some other way for people to become productive members of society again. And it's not only about, oh, you did a harm and therefore I'm going to harm you. And I think that we see that in the economic games and we see it when we look at the results of penal systems like the ones we have in the UK and the U.S.

MBS (44:23):

Yeah. Sure. I hope you've already started writing this next book because it sounds amazing. There's some parts of it. I know your new book isn't out there yet, but now is the time to start the next book. Nichola, it's been a wonderful conversation. As a final question, is there anything that needs to be said that hasn't been said in this conversation between you and me, you want to add?

Nicola (44:47):

I think it's just one thing that people frequently misunderstand and I'm always kind of quite keen to clarify is that when we talk about the fact that cooperation can be beneficial to individuals, and particularly when we're talking about humans, where we have an intuitive sense of the reason why we do things, people can often get bogged down in a misunderstanding that the reason on a psychological level that people do cooperate is because they're seeking out these benefits of cooperation.

Nicola (45:22):

And that's just a really fundamental misunderstanding in a way that I think it's really easy to make. And so I always try to clarify it. Essentially, evolutionary

biologists, when we ask a question that starts with why, why is the lion hunting the impala? Why is a person giving to charity? Why do people like having sex?

Nicola (45:43):

We ask why questions all the time. And there are different answers you can give to a why question and they're not mutually exclusive. And so, for example, if you were to say, why do people like having sex? Well on approximate level, you can point to all of the subjective reward mechanisms, it feels good, bloody blah. On an ultimate level, sex has the propensity to lead pretty directly to reproduction and to fitness.

Nicola (46:08):

And so while we don't say that every single time someone has sex, they're doing it because they think that's how they're going to get a baby. Obviously, that is not the case. The exact same argument can be made to understand cooperation. And yes, it is the case that often cooperation does result in downstream benefits for cooperative individuals.

Nicola (46:27):

But that is not the same as saying that the reason that people do cooperative things is because they think it will make them look good or because they want to avoid being punished or because they're actively seeking out those benefits. And in fact, we know that a lot of the time, the reason people are cooperative is because it feels really good to help other people.

Nicola (46:47):

We get what economists call the warm glow of giving, which is a subjective reward which you can see. And then FMRI scanner, if you put people in there, you can see the reward centers of the brain lights up. And actually, that is something which evolution has designed to make us do something that is in our

ultimate evolutionary interest. But it's not the same as saying that people are always just calculating and acting in pursuit of those benefits.

MBS (47:19):

The warm glow of giving. I love that. That's such a potent phrase. And that final point Nichola made, I think is crucial. I mean, I found something similar for myself around trust, which I guess is a close relative to cooperation. I mean, I do all I can in my own life to assume positive intent, to give people the benefit of the doubt, to trust that they'll do their best by me as I will for them.

MBS (47:46):

And occasionally, I just get screwed over. I mean, now and then somebody takes advantage of me and it stings in that moment. There's no warm glow here. I'm frustrated and a tad bitter and disappointed. But most of the time, I remind myself and I hopefully remember that's not what happens. Most of the time I trust them and they repay that trust. I mean, generally, I win and they win and we win.

MBS (48:14):

And I'm balanced. I think this is a brilliant way to be in the world, even if it means having your heart broken every now and then. This takes only to cue up Billy Joel, an innocent man, which is all about it. This is one of the key songs from my early teenage years. And if you've enjoyed my conversation with Nichola, and I certainly loved it, I'd encourage you to check out two other podcast episodes.

MBS (48:36):

The first is my conversation with Katy Milkman called You are Predictably Imperfect. And secondly, my early conversation with Dali Chug called How to be Good ish. Both of those will shed some really nice light on the conversation with Nichola just now. Thank you, of course, for listening to the podcast. If

you're so moved to give it a thumbs up and some stars on whatever your podcast app is, that's brilliant.

MBS (48:58):

I certainly appreciate that and reviews as well. Word of mouth is honestly the way this grows. And I'd love you to pass this episode along to somebody. Is there somebody you know in your life who you think, huh, that conversation around cooperation and competition, that could be really helpful for them to hear.

MBS (49:17):

Somebody comes to mind, ping them an email or a text and say, listen to this. And maybe you'd like to join the hundreds now of people who are part of the Duke Humfrey's. It's a simple free membership site. It gives you access to transcripts and downloads and other unreleased episodes and other useful bits and pieces. Thank you for listening. You're awesome and you're doing great.