

Intro ([00:01](#)):

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Speaker 2 ([00:17](#)):

Dramatic or center, and his first dog on the moon. And I'd like to welcome everyone to the Adelaide Festival Ideas and today's session Sex Bonding and Dominance in Bonobos. Firstly, I acknowledge that today we are gathered on the traditional country of the garner people of the Adelaide Plains. We recognise and respect their cultural heritage, beliefs and relationships with the land. We acknowledged that they are of continuing importance to the garner people living today. And we respect the elders past and present just a little bit of housekeeping before we start. If you could switch your mobile to silent, we're trying to do as well. And you are welcome to connect with the festival that Twitter handle is at A D L F O I and the hashtag is hashtag ADL FOI. And the Instagram is also at ADL FOI hashtag ADL. If there's a pattern there, I'm sure that they would work on Facebook as well now, and also rise recordings of any kind and not committed during the session.

Speaker 2 ([01:29](#)):

Thank you. Today's session is currently being interpreted by OSL and signers and being audio recorded for radio Adelaide for broadcast and future podcasts. So with that out of the way, Dr. Amy Parish is a biological anthropologist, primatologist and Darwinian feminist all at once who has taught at university of Southern California in the gender studies, arts and letters, anthropology and preventative preventative medicine programs and departments since 1999, Dr. Parrish is a co-founder of worldwide visionaries.org, an online forum for young people to develop and exchange ideas about working on social justice and environmental causes. Other activities include a position on the board of up the river endeavors, which is devoted to addressing sustainable development, global peace and social justice. And it is very nice of you to do all of that. Dr. Paris has been studying the world's captive population of Bonobos for the last 20 years, which sounds like a wonderful job.

Speaker 2 ([02:32](#)):

She also has a project on female mate choice decisions in human females and promises that she will possibly talk about that later on. This is her first trip to Australia, probably because we don't have any Banabos. Maybe we should get some drop to parishes, gracing us with her presence this evening, hopefully to share her insights gathered from the 20 years of observing them, Banabos happened to be among our closest living relatives. I'm hoping she'll be able to answer the question of whether that documentary I saw about the banaba who made the two minute noodles was real. So please welcome Dr. Amy Parish.

Amy Parish ([03:17](#)):

Thank you so much, everyone for being here tonight to hear about Bonobos, thank you to the festival for inviting me. I've had a wonderful time. And even though there are no Bonobos here, I had a terrific day at Cleveland this morning, admiring the wombats. So that was high on my list of things to do while I was here. I was really glad to have that opportunity. When you see it bonobo, you might think that they're a chimpanzee. They look very, very similar. These are Bonobos, the species that actually now it's 23 years' time, really flies that I've been working on them. And you can see that they have very, very human characteristics in terms of their posture and their gestures and their faces. One of many types of

primates, we have approximately 200 species of primate that comprise the primate order, including this prime Australian example here of our own species.

Amy Parish ([04:15](#)):

So we are also a primate primates are highly social animals and they use grooming as a way to maintain and to monitor their relationships in humans, Robin Dunbar, who's a primatologist in England has suggested that we use gossip instead of grooming in the same way that other primates maintain their relationships. And he suggests that actually, we're not very good at doing that beyond about 150 people. So it's sort of interesting in the context of some of the other themes of this festival of ideas, to think about our evolution and our place in that animal kingdom and what some of our capacities are. We are most closely related in terms of genetics to the apes. There are three types of African apes, which are Bonobos, gorillas and chimpanzees, and two types of Asian apes, orangutans and Gibbons. I studied white handed Gibbons and Thailand for two and a half years.

Amy Parish ([05:20](#)):

And we can talk about them as well during the Q and a, if you're interested, you can see that we still retain some of our primate characteristics. And when we are a primate and we have those same grasping prehensile abilities, not only in our hands, but also to some extent still in our feet, particularly in our infants. And we have helpless young that need a lot of care, and that's really similar to the other primates as well. We also share a lot of traits in common with other mammals. So we produce milk. Females have to invest a lot in reproductive and we have an especially close kinship to chimps and Bonobos. We share behavioral patterns with them. We share genes. We last shared a common ancestor 5 million years ago. So each of those two species is equally our closest living relative. They are each other's closest living relative.

Amy Parish ([06:18](#)):

They last shared a common ancestor two and a half million years ago, but each of them is equally our closest living relative Bonobos like us are really designed to have one baby at a time and they have to work really hard when they occasionally have twins. So this is the first female in a zoo who has managed to be successful in rearing twins. She was pretty surprised when the second baby emerged and she really didn't know what to do with it. So she was kind of sticking it on her leg and kind of putting it on her back. How do you, how do you do that? So you can see she's pretty tired. And, and she had to learn that how to manage because Bonobos like us are not really hardwired for motherhood, neither our gorillas for that matter, they have to learn it from their social groups.

Amy Parish ([07:10](#)):

And so that's just one more similarity they share with us. We also have our own unusual traits like the tendency to form pair bonds. That's not very typical in mammals for males and females to associate for sustained periods of time for purposes, other than mating. So it doesn't mean that these pair bonds are lifelong and it certainly doesn't mean that they're exclusive, but it does mean that any way we're unusual in terms of having them at all and having any kind of affinity to hang out together on a long-term basis. And every human society that's been looked at has some kind of formal kind of formalized set of rules around those pair bonds that kind of prescribe what the marriage patterns are and what the social customs are. We're fascinated with ourselves. And we like to see ourselves as somehow at the pinnacle of evolution as if everything up until now has been leading to us.

Amy Parish ([08:08](#)):

And we're the really the grand prize in the cracker Jack box. But in fact, we're very, very small and recent addition to an array of animals on the planet. So we are just one type of mammal, which is this little sliver right there, there are about 1,000,030 2000 species of animal on the planet. And of those 4,000 are mammals of those 200 are primates. And of those living today, there's only one genus and species of humans. Although as, as recently, as 18,000 years ago, we shared the planet still with a number of other types of humans. So homofloresiensis a little Hobbit people that you all have probably heard about are, are one example of that. So here we are, we don't really look that significant in this grand scheme of things, it was JBS Haldane, the famous population geneticist who observed that if God has any favorites, he in quotes has an inordinate fondness for beetles.

Amy Parish ([09:13](#)):

So you can see that by looking at this pie chart, that that's actually true. And if you add in the ants and the butterflies and some various other insects as well, more than half of the pie chart. And so really evolution doesn't have a direction and it doesn't have a goal. It actually responds to, it's sort of backward looking. It's responding to recent conditions and ecological circumstances. We are just one part of a great array of diversity. We're all saved numbers less by the processes of natural selection that Darwin first proposed in 1859. Humans are not an exception, even though we like to think that we have completely freewill and we are in no way governed by our biology. That's probably not true. It's a mix of freewill and biology. Darwin was pretty opaque about that point. And he was brief in how evolutionary theory applied to humans.

Amy Parish ([10:12](#)):

He was already in enough trouble as it was at the time. So he waited until one of the last paragraphs of the book to say that probably all organic beings, which have lived on this earth have descended from some one primordial ancestor, light will be shown on the origin of man and his history. And, you know, that was really all that he wanted to say on it. And he, I think he thought that that was opaque, but everybody immediately figured out what he meant and what they meant was what he meant was that somehow we are, at least he has some kind of kinship with apes and that was supposed to be an insulting thing. So in some of the debates that followed know, these kinds of insults were hurled about whether you were descendant from an ape on your grandmother or your grandfather's side, et cetera.

Amy Parish ([10:59](#)):

And I mean, it's actually a pretty cool thing to be related to apes. I'm actually thinking of having my DNA tested to see if I have an Indiana Cathol genes. Cause I think that would be really, really cool if I did. And of course, if I had been oboe genes, that would be right too. So the idea that we are related to other aids is sometimes misunderstood that we came from an ape that somehow chimps turned into these wonderful specimens that we have here today. And it really doesn't work like that. We shared a common ancestor 5 million years ago, but in the meantime, both Banabos chimps and humans have all done a lot of changing. So it probably was some sort of creature, more like this than this, but it wasn't a literal transformation of a chimpanzee into a person. It also sometimes seems like we take literally when he talked about man and his history, because most of the trajectories, you see, look like this.

Amy Parish ([12:01](#)):

This is one of the that I found that mentions women and, you know, the ideas that the evolution of women has been very, very constant. And on Sunday I'll be talking about Darwinian feminism and return

to this point. So if that interests you, please please come on by and join us. So I do think that this in some ways broadly reflects the experience of our species, but not that of our closest living relatives. I think we've been subjected to a kind of patriarchy that oppresses women for a very, very long time in our history. And what I'm going to share with you tonight about Bonobos is encouraging in terms of giving us some alternative role models and you know, a better perspective on those last 5 million years. So it's important to know about evolutionary theory and it's never too early to start. This is my son at 18 months reading his board book copy of the origin of species.

Amy Parish ([12:58](#)):

Of course, now he wants to be a politician and he's not going to be a biologist, but nonetheless, he's in a bio class right now and studying cooperation theory and really, really interested in evolutionary theory because of course it informs so much of our life, especially our, our political situations. And so I think that's going to serve him really, really well. And so recently when we wanted to understand our origins, we looked what we know about chimpanzees. So Jane Goodall gossip has been more than 50 years ago now began her studies at Gumbo and Tanzania, and she's continued ever since. So she's still working in Tanzania when she's not going around the world advocating on behalf of the, the, the rights of chimpanzees. But she started an intense interest in studying chimps and they are more widely distributed. And in Africa than Bonobos are, they're found in east and west and central Africa.

Amy Parish ([13:59](#)):

Whereas Bonobos are only found in the formers. I mean the democratic Republic of Congo south of the Congo river. So we had a lot more data on chimpanzees than we have had to this point on Bonobos. And we built most of our models of hominid evolution based on what we know about chimps. And there's a lot that we share in common. So they like us kill other members of their own species and really intentional warlike ways. So, whereas we are homicidal, they are kind of beside all, I guess you would say they hunt and eat a lot of meat, particularly other monkeys, and they're organized and very male dominated societies. And so that's how we modeled our own evolution for the last 50 years. Bonobos were discovered much later were only recognized as a separate species in 1920 and because of their limited range and the kind of problems, political problems that we see in the democratic Republic of Congo, we haven't known very much about them and yet they are equally our closest living relative and their behavior is radically different.

Amy Parish ([15:11](#)):

So over the last 23 years, I've been working with the Bonobos that we have in zoos around the world. And there are about 200 now in zoos. I got to work extensively at the San Diego zoo and wild animal park, the Frankfurt zoo, and my favorite, the the Wilhelm botanical gardens and zoo in Stuttgart, Germany, which is built out of the, the former bathhouses of Kingsville. Helm has all these beautiful Lily ponds. And when I worked there, they let me live in the zoo. So I had this wonderful opportunity to have it all to myself at night and sit by the Lily pond and edit my data. It's really, really a wonderful aspect of the work. So if you first see a bonobo, one of the things that I think will really strike you are the, what Darwin referred to as the brightly colored hinter ends and adjoining parts of certain monkeys.

Amy Parish ([16:06](#)):

Well, these are not monkeys, but they do have brightly colored hinter ends in a joining pirates in terms of their genital swellings on the females. So it's one of the first things that you notice they're pretty hard to miss chimpanzee. Females have them too, and this is a Chimp female here in chimps. They signal that

a female is ovulating and therefore fertile. And so it's a really loud signal to all the males in the group to come and meet with her. And it's a very efficient way of accomplishing a goal that seems to be on the minds of chimpanzee females, which is how to efficiently meet with every single male in the group. And females are interested in doing that because if every male has a chance of having sired, the offspring, they're much less likely to commit and fantasize. So Chimp females are really intent on making sure that they mated multiple times with every single male.

Amy Parish ([17:05](#)):

And so if you had to go to each male and solicit him, that wouldn't be very efficient, it's much more efficient to have a great big, loud, obvious signal and have those males come to you. And it's a clear signal because as the female moves away from ovulation and towards menstruation, the swelling collapses, and it looks like this kind of just this wrinkled massive skins. So the swelling here's bonobo females have these swellings too. My impression is they're even larger than in chimps and they have them for much more of their cycle. So I would say that the bonobo, Chimp ancestor, male really evolved to key into these swellings and in Bonobos, it's at least not so much a visual cue anymore to fertility because they have them for such a big part of the cycle. And yet males are still really, really interested in them.

Amy Parish ([18:02](#)):

So males spend a lot of time inspecting female swellings, touching them, lifting them, licking their fingers, smelling them, spending a lot of time in as close proximity as they can get to these swellings. And that's very similar in chimpanzees. So males are definitely, some are really interested in close inspections of females in Bonobos females, take opportunities to check out each other's swellings as well. So the female that you see here on the right is a very senior female in the group. You have to be careful when you approach her. She's the alpha female and this lower ranking female has kind of crept up during her nap to get a really, really close look at that swelling. And those swellings convey a lot of information while they might not be such a good cue to ovulation anymore. I think that they convey a lot about your overall health, your maybe being parasite free, your ability to invest a lot of resources in making this great big signal.

Amy Parish ([19:05](#)):

Well, if you know anything about bonobo is probably what you've heard about them is that they are the make love, not war species or the species from Venus and chimps are from Mars. And it is too that they had true rather that they have a very interesting and diverse repertoire sexual behavior. Sometimes they do have rather typical mammalian sex where the male is behind the female and the female is facing away from him. We in the vernacular call that doggy style, at least in America. I don't know what, what here. But we call it that because that's how dogs copulate. And that's a pretty typical mammalian way of copulating. And so this is a pretty classic copulatory position. And yet even when they copulate like this, you see that the female is twisting around and maintaining eye contact with the male and making all kinds of facial expressions and vocalizations.

Amy Parish ([19:59](#)):

And that's all very important. If a female doesn't want to mate with a male, she just doesn't look them in the eye. And that again is a really big difference from chimps where males force females into copulations with some regularity. So this is pretty interesting difference. Bonobos also have sex hanging out of branches and kind of upright position, upright hanging position. And they even have sex face to

face, which was another trait that was supposedly uniquely human in the vernacular. We call it the missionary position because it's supposed to distinguish us from the so-called animals, right? And so France Deval go in his lectures. He's another Chimp. And burnover researcher says that we call it the missionary position because missionaries used to encourage the savages to copulate in this face to face way in order to be less animal like. And so well, we now know that there's really not very much, that's unique about humans.

Amy Parish ([20:59](#)):

There's just a whole spectrum of behavior that we share with lots of other animals and Bonobos have quite a bit of sex face-to-face and even gorillas, both in captivity in the wild have now also been seen to have sex face-to-face. So it's not all that unique, but it does happen quite often. And, but Nova is about 25% of male female copulations happen in this position. And again, you can see the, the facial expressions on the, the eye contact are really important here. These copulations don't last a very long time. So the average is about 15 seconds, which is twice the length that they are in chimpanzees that average about seven seconds. So if you've read Will's self's book, great aides, he's a wonderful novelist from England. He kind of turns everything on its head, where the world is kind of run by chimps and Bonobos and males are judged on their sexual prowess, by how quickly they complete copulations.

Amy Parish ([22:01](#)):

And as they age, they get delegated for taking longer and longer. It's really funny because of it just makes you see how arbitrary our standards are as well. Oh, and the females were little swelling protectors with ruffles and a little rose in the middle that are kind of the equivalent of our bras. It just, it really does make you think about our species in a different way. Lots of things that we take for granted. So these calculations are quick, but not as quick as chimpanzees. What I find really, really fascinating about banana sexual behavior is that females have a lot of sex with each other. So there's a lot of same sex, sexual interaction, both male, male, and female, female, but the female female happens a lot more than the male male. These two females are engaged in what we call GG rubbing or genital genital rubbing.

Amy Parish ([22:50](#)):

You can see that the female on the left from our perspective starts with her swelling to the left of the female on the bottom and rubs it back and forth with really quick horizontal movements. And I've been trying to score those with the student and we really have to slow it down a lot to be able to count those. So it looks like it's about four rubs, a second, really, really fast motion females often prefer to have sex with other females. So if they're being simultaneously solicited by both a male and a female partner, they're more likely to pick the female than they are the male, but there are no exclusively homosexual or heterosexual Banabos, they're all bisexual. And in terms of females seeming to prefer other females when they're simultaneously solicited, it seems as though that might be because this kind of rubbing gives a lot of stimulation to the clitoral, which is really, really prominent in bonobo, female genitalia and anatomy.

Amy Parish ([23:50](#)):

So this is the clutter as here on an infant female, as she matures, this will grow into the genital swellings that you see on the adult females, but the clearest will still protrude out of those swellings and it can become a wrecked. Females can intermit them into the swellings of other females. They be there about two and a half inches in length. And they're made from the same shoe and they have the same kind of

structure that the penis does. And of course that's the same in human females as well. The clitoris and the penis are very, very similar in terms of their structure. So this is the Lenovo penis here and I was at world vasectomy today, world vasectomy day today, and watched four of us Actimize happen from the front row. And then we had a little conversation about testy sizeism, but OBAs and chimps compared to humans.

Amy Parish ([24:41](#)):

So we could talk about that too, if that's interesting to you. So Bonobos are this really sexy ape. They have this reputation and it's not as though they're having sex all day long. It happens in a couple particular contexts. One of those contexts is food. They get really sexually excited by food. So this female is soliciting this male for copulation, and she's doing that in a really typical banaba way. She's raising up her arm and wiggling the end of her fingers. It could be like this, or sometimes it's like this on every banaba knows what that means. They also do this kind of arm around thing where they go up to another individual and kind of try to almost like scoop them into position. But so she's, she's inviting this male in, in this typical way. And she's also masturbating with her foot and it's not that she is so just inherently attracted to this particular male, but he has raspberries in his mouth and he's also carrying some here in his hand.

Amy Parish ([25:42](#)):

And so she's excited to have sex with them because of the food that's involved. Here in this picture, you see a male soliciting, a female, same, same gesture. She's ignoring him. He doesn't have any food. And instead she's soliciting the individual who's in front of her. That happens to be a keeper, a human keeper on the other side of the moat. And so Bonobos don't limit their solicitations to just other Bonobos. And that's true of most big brain. Danimals, it's true to some extent of humans and of dolphins. If you swim with the dolphins, you'd have to really watch what happens. So he's soliciting her. She soliciting the keeper. Once he throws the food into the enclosure, the male catches some of it, and he shows he has an orange in his hand. He shows it to this female and she lays down and they copulate face-to-face and then she takes the orange.

Amy Parish ([26:37](#)):

These kinds of sex for food exchanges were first described by Franz Deval when he studied Bonobos in the 1980s. And he he cared, I still miss sex for food exchanges that were kind of like the original prostitution, right? So it really made sense. The idea from biology that females can only have a limited number of babies in their lifetime. So they should care about the quality of each and every one of those babies. So they should care about food that you can convert into high quality offspring males can have as many babies as there are willing females around, so they should care about sex. So they should be willing to give up food to have sex. So this all seemed to make a lot of sense that females would be willing to exchange sex for food. That's not the only interesting thing about Bonobos despite their sexy reputation.

Amy Parish ([27:28](#)):

They're also fascinating in other ways, for instance, females, nice to infants that aren't their own and aren't their kin. So that's pretty unusual in mammals, this females kissing the head of this infant, that she has no genetic relationship to. And even more remarkably females are nice to each other, despite being unrelated. And this is almost unheard of and mammals, they share food, they form bonds, they have sex, they form coalitions. And this became the focus of my work. When I started studying Bonobos,

I thought I would look at heterosexual pair bonds, because even though there was nothing like monogamy or any kind of exclusive relationship between males and females, they were kind of rumored to be more friendly than is typical for your average mammal. But what I quickly saw when I, when I started watching them was that the females were forming these really intricate relationships with each other that had all kinds of implications.

Amy Parish ([28:27](#)):

And so that became the focus of my work and my big contribution to the field. They often use those coalitions to control food. And so by the time that I studied the same population that France had studied, the females had aged. They have become much more powerful than when France had studied them and they didn't have to exchange sex for food with males anymore because they controlled the food. They just took it when it was thrown into the enclosure, or if a male caught some, they just take it away from them. So females controlled the food and males had to find ways to negotiate with females over access. One of the things that they do is what's called a close beg stare, where they stare really intently either at the food or the mouth of the eating individual. We've never actually seen this result in a food transfer.

Amy Parish ([29:16](#)):

So we're wondering why, why is all seemed to do it? And maybe it means something else other than what it looks like to us, because it just doesn't seem like you would give up on that. But the other thing they do is they offer sex to females in exchange for access to food. And that was really, really fascinating for me to see. So it's suggested that gender roles are not set in stone, right? It's not always the females want food and males want sex. Females can want sex too. And they're willing to demand things in exchange so that they can have this kind of economic relationship with males. This female domination of males means females also act aggressively towards males. So even though they're known as the make love, not war species, it's true in the sense that they don't engage in warfare with other groups of Bonobos the way that chimps do with other groups of chimps.

Amy Parish ([30:10](#)):

But within the group, females act pretty aggressively towards males on occasion, and they sometimes inflict serious injuries on them. So you can see this male is recovering from a really big gash on his thigh. That's the result of a cooperative female attack. I used to have a picture of a male and Stuttgart whose penis was bitten in half by a coalition of females who had attacked him. But a lot of men in the audience told me that I left it up there for way too long and that it was really agonizing. So I took it out and I put in this picture instead, but because you can probably use your imagination, although after the world was seamy day to day, I don't, I don't know. I don't think I would fall into it anything anymore. So work on male, female dynamics revealed that these sex for food exchanges are not unidirectional.

Amy Parish ([31:01](#)):

They're not set in stone and that we really need to rethink the way that we've looked at things in biology, which is in this very stereotyped idea that females can barely stand to have sex. And that males are always interested in sex. In fact, I've seen males turn females down. I think we got these ideas from Darwin who after all was a Victorian and probably had some kind of agenda there. I mean, if you are told that females are naturally what patriarchal culture wants them to be anyway, which is passive non-aggressive non-sexual dependent, then it's kind of easier to keep them in that position. So this was really exciting work that showed that that just really wasn't, wasn't the case for the species. So I argued that



these female bonds were fascinating and important because they allowed females to form coalitions and alliances that then actually led to a pattern of female dominance in one of our closest living relatives.

Amy Parish ([32:03](#)):

And why do you need female dominance? Well, it reduces a lot of costs to females that we assume they would have if they were living in a more chimpanzee like society. So chimpanzee females are really subject to a lot of sexual coercion and other kinds of male violence. Their infants are killed by males and they are completely prevented from mating with males outside of their own communities. And all of that is not true for Bonobos. There's no sexual coercion at all. We haven't seen infanticide and females are free not only to mate with any male in their own community, but any male of any community in front of their own community males. And that's really, really fascinating that they have that kind of well. So not everybody was really receptive to hearing this news that we had another closest living relative was such a different pattern of behavior.

Amy Parish ([33:01](#)):

It wasn't really well received, particularly by male researchers, particularly male researchers who study chimps. And they said, oh, those females aren't bonding with each other. They're just tolerating each other that are actually like each other. But, you know, for, for reasons that I want you all to guess, they they're just banding together and hanging out and they're just putting up with each other. So now I'm going to ask you to think like you're a male scientist steeped in the patriarchy and your own power and prestige. And I know that's going to be hard for this audience because you've got this Australian street cred that you gave the women the right to vote so early in this country. But if you can just for imagine for a moment, try to put yourself in those shoes and tell me why would females just be tolerating each other rather than actually bonded to each other? Any ideas you're a very evolved audience. It's, it's really actually just, I mean, it's jaw dropping that anybody would even propose this, but the idea was that females watch to attract males and a group of females is more attractive than just a single one. So they don't actually like each other. They're just hanging out because it's a better way of getting male attention.

Amy Parish ([34:17](#)):

So I had just asked you to look at the slide here and tell me if it looks like these two females are just tolerating each other, you know, these same scientists were saying, oh, you know, they're just using these bonds to regulate the competition that that would naturally be there between females. But I think you really have to ask, do they have to have sex to tolerate each other? Do they have to have sex that looks this fun? And who do you most need to reduce tension with? Well, probably your closest friends. I'm not sure that these are mutually exclusive categories, but it was the start of a whole resistance to acknowledging that there was a pattern of female dominance in Bonobos. So in the, this is, these are quotes from the scientific literature. This is not the popular literature females were described in really pejorative terms in journals like American journal of primatology international journal of primatology females were described as irritable, troublesome, daring.

Amy Parish ([35:21](#)):

Co-Dominant almost, co-dominant appropriately respectful of males. I mean, how do you measure any of these things in an empirical way? This is just not, how did this ever make it into a scientific journal? Whereas males on the other hand were treated with much more sympathy. So males are tolerance.

They're allowing females to have the upper hand they're henpecked, they're chivalrous, or my favorite. It's not female dominance, it's strategic male deference. So the idea was the males for strategic reasons are stepping back and making it look like the females aren't charged, but at any moment they could jump right back in and have the power. I found it interesting because nobody has ever, ever suggested that a strategic female deference, when it's a species where males dominate females, it was just absolutely incredible. So, you know, we had to go through a period of years of presenting a lot of data to show that this really was not a very parsimonious explanation for what was going on.

Amy Parish ([36:24](#)):

And that in fact, it really was a species where females dominate males. So we could actually call it a matriarchy. So Bonobos are really interesting in their own, right, from an animal behavior perspective. And they're also interesting in terms of what we can learn about ourselves. So I think that from my background, I first got inspired to be an evolutionary biologist from reading Lauren Isley, really famous American naturalist who spent a winter kind of in commune with a catfish in his basement. And when he writes about it in the immense journey, he says, we were both projections out of that timeless ferment and locked us well in some greater unity that lay incalculably beyond us in many AFIN and reptile foot. I have seen myself passing by some part of myself that lies on realized in the momentary shape I inhabit so easily was really recognizing that he had a kinship with a catfish, which of course is much more distantly related to us than any kind of primate.

Amy Parish ([37:36](#)):

But I really understood what he meant by seeing that kind of kinship in a fin or a reptile foot. For me, I was inspired to study primates in order to learn about ourselves. And that's why I did it with an anthropology degree rather than a biology degree, because I was really interested in, in the implications for human evolution. So knowing that we have not one but two closest living relatives and that one of them, the bonobo is a sexy gender fluid female dominant piece, inclined species is both fascinating and reassuring. I think it provides a model for the human feminist movement in the human feminist movement. You're told to behave with unrelated women as if they were your sisters, right? It's all about, it's all about the sisterhood. And it's really a recognition that if women would get together and act as if they were in and form kind of cooperative solidity, then they would have a lot more power. And we could talk a lot about the times when we've been successful with that and the human feminist movement and the areas where there's room for improvement. But I would say that the Banabos have really accomplished the goals of the human feminist movement. So here, these two females are walking by Peterlee arm-in-arm up over the hillside here, and they're definitely the two highest ranking individuals in this group.

Amy Parish ([39:05](#)):

So knowing about Bonobos opens up the possibilities for modeling our own evolution. We can rethink common at evolution to include the possibility that our last common ancestor wasn't. So Chimp like wasn't so male dominated so patriarchal, so aggressive, maybe that last common ancestor was female dominant, more peaceful, more sexual. And I think it gives us hope for looking at systems that we can aspire to and where we can identify an ecological conditions that make this kind of system possible. So I'd love to start a conversation with first dog over here and then move on to a Q and a. And I really thank you for your attention

Speaker 4 ([40:04](#)):

[Inaudible]

Speaker 2 ([40:05](#)):

So we are going to have a Q and a, and if people have questions, we're going to ask you to line up behind the microphone, which is just over there. So did I dream it or did I actually see a documentary which featured a bonobo being only slightly helped to boil water and make two minute noodles

Amy Parish ([40:25](#)):

You did, you did. You saw Kanzi the very famous language change bonobo who was part of some research done by a scientist named Sue Savage Rumba. And she was actually trying to train Kanzi his adoptive mother Matata to learn a system where she could press icons on a computer keyboard in order to communicate. And Matana was already an adult and never picked it up. Nobody was trying to train Kanzi at all. He was just kind of bopping around on her head and stuff. Well, while she underwent all these exercises. And so one day when he was about to, he just went over to the keyboard and started typing things. And they realized that he had picked it up just the way a human child would. If you rear them in a human kind of situation, they pick up these human skills. So Kanzi has a vocabulary of, oh, I want to say it's about 700 words.

Amy Parish ([41:17](#)):

He has his own kind of grammar, which is not exactly our American grammar, but it has a consistency in terms of how he strings together, nouns and verbs. He makes his own spaghetti. He lights, you can tell him that you're going to make a campfire. And he goes and gets the wood and crumples up the newspaper, lights it with a lighter roast. Marshmallows blows them out. I mean, it's, it's really uncanny when you, when you see it. And you know, there are language trained chimps as well, that are equally fascinating. Wash out one of the really famous sign language change. Chimps used to pour herself a gin and tonic and the afternoon flip through national geographic. It was the seventies. So she also had access to play girl. And when you're a language trained temper bonobo, you don't necessarily understand that you're not human. So if you give these language change, chimps pictures, and you say sort these into people and animals, they put their own picture in the people pile and pictures of other chimps and Bonobos and the animal pile.

Amy Parish ([42:21](#)):

And they're actually, it's kind of a big identity crisis. If a moment comes when they actually realize I'm not one of them, I'm one of this. I think there are a lot of sort of ethical issues about that, but it is really fascinating to see what they know Washoe once found the cat using the letter box and rushed it over to the toilet and held it over the toilet and was signing bad cat. So, you know, the really huge cognitive capabilities there that then raised a lot of questions about how do we treat this, the species that's

Speaker 2 ([42:56](#)):

So like us extraordinary. So I'm assuming we don't have, and I will let you walk right up to the microphone and, and that they have said in here please ask questions. But in, in capital letters it says no statements.

Speaker 5 ([43:16](#)):

It's question.

Speaker 2 ([43:18](#)):

I think we've, we've probably learned that from, from Q and a, which is

Speaker 6 ([43:24](#)):

I think you, did you mention, you've worked, it opens with the statement, cause it's a question statement. You've worked mainly in zoos, but you've also done some observation. You've had a chance to do some observation of Bonobos in the wild as well.

Amy Parish ([43:37](#)):

So I haven't done field work on Bonobos in the wild, my field work was on white handed Gibbons and Thailand, but well go ahead. I won't anticipate,

Speaker 6 ([43:47](#)):

Oh, well, I, I, I guess it was sort of a two-pronged question about Bonobos in the wild and the Fest was if you had had a chance to whether that was how, how, how that was and both how different it was, but also how difficult is that now with the book, I know, I understand the political situation has been really bad for a really long time in that region. And I also just had a question, which I can probably Google if it's not your area of expertise or if it's too much of a downer. I first got interested in Bonobos when I found out how similar they were to humans. I got really distressed that they were in such a precarious position environmentally and were being eaten as bushmeat and things like that. So I just wanted to know if you knew anything about the evolving situation for while Banabos, but if they'd rather just touch on it and move on to something more like, no, I'm very glad

Amy Parish ([44:36](#)):

That you asked that because I think, you know, there's such a love of Bonobos, which might be what drew all of you here tonight, and it's really important to understand their situation and the wild. So we don't know how many are left in the wild, maybe as few as 10,000. So they're a very endangered species. The biggest threat is that they're being hunted and eaten by humans. The biggest threat say for orangutans is habitat destruction. So different threats for different apes. This is not really something that is a traditional practice in democratic Republic of Congo. This is the result of logging and mining companies coming in, bringing people from areas that don't have any taboos against eating whatever's in the forest and then not feeding them, but arming them and saying, go get your dinner out of the forest at the same time, they're building roads, which then means that rather than just local consumption, you have a chance to send meat out and sell it at markets very, very far away.

Amy Parish ([45:37](#)):

So the I mean just, well, there are, there are whole forests that are silent for us now. There's nothing living in them accepting except insects because absolutely everything has been hunted out. So I would say we all need to pay attention to the bushmeat problem and think about ways that we can contribute to organizations that are fighting against that. We can also contribute to the few field projects that there are on Bonobos in the wild. There's a woman at the Milwaukee county zoo, Dr. Gaye Reiner, who's working in the salon before us. She's really brave, really Hardy. She is out there several times a year, working with the Banabos there. And there's an orphanage in Kinshasa called LA lo Lola yap and oboe. That's rescuing Bonobos that our pets are being smuggled and rehabilitating them. Hopefully at least some of them will eventually be re-released.

Amy Parish ([46:33](#)):

There's a German team. That's working. There's a, a woman from lenovo.org, which has Sally Cox. She used to work for national geographic who is working on what's called a bonobo piece for us. So P a C E. And it's going to be a whole bunch of protected for us that form a corridor so that you don't have these little isolated pockets of Bonobos left that can't get to each other. The other part of your question about the differences in wild and captive Bonobos, everything that we see in one environment, we also see on the other. So the repertoire is completely the same. There aren't really any surprises either in zoos or in the wild, but the rates are different because if you're in captivity, somebody is making your meals for you and you don't have to Ford save you a lot of time on your hands.

Amy Parish ([47:26](#)):

And so the rates of sex are for higher, but all of the categories and positions are very similar and, and the pattern of female dominance is there in the wild as well. So in the wild, the reason that we thought, remember I said, when I first was studying Bonobos, that I was going to look at heterosexual pair bonds, because there seemed to be these friendly male, female relationships. Those turned out to be mother son. And the reason we didn't think they were mother, son is that in chimps males are struggling to work their way up the male dominance hierarchy. And they start with every female in the group. So before they can even really take on any males, they dominate all the females, including their own mothers. So the relationship that they have with their mother really ends with that kind of period of adolescence.

Amy Parish ([48:13](#)):

So nobody knew that in Bonobos, sons were very dependent on their mothers for their whole lives and had very close relationships. And that's mothers ranked that determined sons rank. So if a high ranking female dies, her son immediately falls on rank and becomes kind of peripheral to the group. So it's really, you know, it's very interesting. These females are solving the males fights. So two males are fighting with two mothers, Russian and whoever has the higher ranking mother wins the fight and the, the sons get to meet with all their mother's friends. So it's kind of a nice setup. You can't really argue with that.

Speaker 2 ([48:53](#)):

We we've got time for just one. So sorry, if you were a long

Amy Parish ([48:59](#)):

Answer and I didn't know that attends, I am

Speaker 6 ([49:03](#)):

To add to, you talked about the resistance that you've faced from various academics and writers and scientists. I wanted to ask how you deal with that. Are you able to interact with, I guess, or change these men's mind about the possibility of matriarchy or do you just kind of accept kind of resigned yourself to the fact that you're operating in completely different paradigms?

Amy Parish ([49:24](#)):

Yeah. You know, I think that there are there are male scientists who just, you know, it had never occurred to them that this could be a female dominated species or kind of matriarchy. And they came

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around fairly quickly and said, oh wow, that's really interesting. And they were very accepting. There are some researchers who are never going to relinquish this idea that they have, and that's kind of typical in academia. You kind of hang on to this great idea. You have ones you don't really want to let go of it. So I think the great thing about science is that people test your ideas. They go back and collect more data and through time you can correct errors and you can kind of emerge Victoria. So, you know, it was interesting to listen to Paul Davies last night and hear him talk about poor Einstein thinking.

Amy Parish ([50:12](#)):

He'd wasted all this time on this idea that that seemed to have taken him off track. And then, you know, it was decades later when it turned out that actually it was this really genius idea after all. And, you know, I don't think that we're ever going to discover the Bonobos aren't female dominant. I'd be really, really surprised. I think it's just something that very few people could imagine because it's not very typical in nature in the absence of kinship. I mean, there are plenty of species like elephants where females have a lot of power because they're all related and they're, they're arranged in Matrilineal lines, but this kind of system really is quite unique. So thank you for,

Speaker 2 ([50:54](#)):

Thank you. And thank you. Question is I would like to thank everyone for coming along this evening. Especially our silence. We've done a wonderful job signing. How do you sign bonobos you spell it? And Dr. Parish is on a panel tomorrow evening share shall have fun. And then when he in feminism on Sunday evenings attention. So if we would take a moment to join me in thanking

Intro ([51:36](#)):

This session of the 2013 Adelaide Festival of Ideas was recorded by radio Adelaide through the support of the Vast mid library, University of Adelaide, The University of South Australia library and Flinders University library.