

Video Transcript – Webinar: The Evolution of Human Warfare and Peacefare

Air date: October 21, 2021

Briana Pobiner:

All right. Welcome everyone. Hi, welcome to today's program, the Evolution of Human Warfare and Peacefare. This is part of our ongoing Hot Topic Human Origins Today program series. My name is Briana Pobiner, and I'm a paleoanthropologist and educator at the Smithsonian's National Museum of Natural History. Whether this is your first time joining us for a hot topic or other program, or if you've attended before, we're so glad you're here. Before we get started with the program, I have a few housekeeping notes. This discussion offers closed captioning. We're having a little bit of issues with the closed captioning but we're working on it, and when that gets sorted out, we will be able to turn on or off the closed captions via the CC button, which will eventually be located at the bottom of the Zoom interface.

Briana Pobiner:

As you have questions, please go ahead and submit them to the Q&A box, which is at the top or the bottom of your screen so we can sort through as many as possible. The Q&A time of the program really flies by. The Q&A box is also where we will share any relevant links during the program, so keep an eye out there. We'll start with an opening presentation by our speaker, Marc Kissel. And then I'll join him here to take some questions. I would like to go ahead and introduce our speaker. Dr. Marc Kissel received his PhD in anthropology at the University of Wisconsin Madison in 2014, and he was a post-doctoral researcher at the University of Notre Dame from 2014 to 2017, where he worked on a project of the evolution of human symbolic thought, collaborating with scholars from philosophy, theology, psychology, and other related disciplines.

Briana Pobiner:

He is currently an assistant professor of anthropology at Appalachian State University in North Carolina. He has published on various topics, such as early hominid mandibles, semiotics, and the processes by which hominids became human. His first book, written with Nam Kim, is called Emergent Warfare in our Evolutionary Past. And was published in 2018. You can find a link to his book and find out more in the Q&A. Now, I welcome Marc to come to the screen. I will turn my microphone and video off, and along with Dr. Grace Veach who is a post-doctoral fellow in the human origins program here with us at the Natural History Museum, we will be answering some of your questions in the Q&A during the program.

Briana Pobiner:

Then after the program is done, I will come back on and we will hopefully get to a lot of those questions. Thanks for being here, Marc.

Marc Kissel:

Thanks everyone. I'm really excited to be here and thank you for that lovely introduction and for your inviting me to take the time to chat with all of you. Also for everyone who's paying attention, I know for many folks it's like lunch or dinnertime. So I really appreciate the hour or so of your time today to get to talk about some of the issues my colleagues and I have been researching and thinking about in terms of how do we become human? What does it mean to be human? And what do all the stuff mean for our innate nature? What I want to mention at the outside is I think questions like this, thinking about the

origins of warfare, are both academic questions that we can debate from a data point, but they also have real world significance.

Marc Kissel:

The reason is, you cannot have any apolitical or a-realistic version of human origins because everybody cares about who their ancestors are and how they behaved. Especially talking about something like violence and aggression, and these hypotheses that say, "Well, one of the things that drove human evolution, some might say, is violence, is aggression, is warfare. What does that mean about our innate nature? Is something I think is really important to think about.

Marc Kissel:

Another point to keep in mind as well, and I'm obviously biased here, is the point that to ask these questions and answer them, anthropology has a very unique way of thinking about these issues. Because of anthropologists, we're experts in thinking about not just the causes but the consequences of human variation. That's one of my quick overview of why I think this stuff matters. Just a quick content warning, I will be showing some images of human bones and also to be aware that talking about violence and warfare has issues of thinking about violence today. I want to be aware of that and sort of give you that warning.

Marc Kissel:

I think it's something that we often forget when we're talking about the past, is these are still our ancestors, even if it is a long, long time ago. As Dr. Pobiner mentioned, I've had the luck to be involved in many different projects throughout my career. I want to just sort of begin by saying how I got into this question of warfare. My post-doc thought was looking at when did symbolic thought evolve? In other words, humans are very, very good at looking at things and connecting them to things that are not there. What I mean by this is, we could see a red light at a stop light and know that means stop, not because any connection between red and stopping, but because everyone agrees that red means to stop.

Marc Kissel:

That sort of agreeing by convention is what we often call symbolic thought. It seems to be distinctively or maybe uniquely human. The question has been, when did this evolve? Was it something that happened really early in human origins or happened really late? The other major question I've been looking at lately is this question of collective violence and what is the role in human origins? Are we innately war-like? Or are we innately peaceful? Or is there much more of a complex take on this question?

Marc Kissel:

No matter what answer you have, what does that tell us about who we are? Especially keeping in mind that talking about who we were is always linked to who we are? What do these questions mean about our current behaviors? As I'll show in a minute, this is not a question that's just academic. The last bit, and this is something I'm currently sort of just beginning to work on, is how does popular science, popular culture, present this data? In other words, how do people outside of anthropology, outside of the sciences, look at the archeological records, look at the human evolutionary record, and how do they use this information to inform on what we were like in the past?

Marc Kissel:

That is sort of a quick outset. I want to give you some examples of what other folks have said about what is our innate tendency and where did war evolve? Going back a couple years ago now, when President Obama won the Nobel Peace Prize, in this talk, he talks about how war appeared with the first humans and that the dawn of history, its morality was not questioned, it was simply a fact. I want to point out that Obama was the son of an anthropologist. He sort of was aware of this overarching debate that goes on in the field about what is our innate tendencies, and here arguing that innately we may have been violent.

Marc Kissel:

In a very earlier time, in a different place, in a different political persuasion, Winston Churchill told folks that the story of humans is war. That there only were brief, brief moments of peace, other than that we were always at war, and that before history began, strife was universal and unending. Politicians have often used this to connote a feeling of where we came from, that maybe we are innately designed to want to fight each other. Slightly more recently an op-ed writer and book writer, sort of argues that the question of warfare in the past has been answered, and suggesting that it's really indisputable. The only ones who dispute the fact that we were war-like are poets and propagandists.

Marc Kissel:

Now, I don't want to be disputing indisputable facts, but I want to point out that it's a lot more complex than that. And for the last 100 or so years, there's been a lot of pushback on this grand narrative that what made us human was violence and aggression and interpersonal conflict and warfare. Margaret Mead, who at the time was probably the most famous living anthropologist suggests that warfare is just a human invention, like any other invention we have created, and thus we don't have to have it. That it's something that invented at one time, a certain time or place, but doesn't necessarily mean that's who we are as a people.

Marc Kissel:

Another anthropologist, archeologist, Sally Binford, points out in a quote I really love that complex truths often fail to catch up with the simple attractive lie. This sort of sets the stage for the fact that the answer to all war and peace in the past is going to be much, much more complex than we often want to think about. Because trying to define what war is, when it began, and if we are innately war-like or innately peaceful, is going to have to go through all kinds of data. The point I want to make today is those data, while very interesting, are very difficult to actually interpret in sort of a 100% accurate way.

Marc Kissel:

So what do we know about life for our early ancestors? As a paleo anthropologist, somebody who studies human behavior and human origins, we know a lot about human origins. I took the center image right here from that 2001 a Space Odyssey. If you've not seen this movie before, there's a classic scene where an ape or a australopithecine or something is taking a bone and smashing it against the bones of a dead animal, and sort of getting the fact that hey, this thing can be used to not just kill animals, but kill other members of its same species. Then later they get into a fight over, I think, a water source with another group of hominids, of extinct human-like things. And they're able to sort of beat them because they have this aggression.

Marc Kissel:

So this notion that aggression and violence drives human evolution is part of our culture. I actually believe that Stanley Kubrick spoke to anthropologists and got the common belief at the time of how humans were. But that's always been skeptics and critics of this notion. People who point out that yes, there may have been moments of violence, but certainly there are moments of peace as well. The little thinking Neanderthal on the right, or the family on the left, showing that there's multiple ways in which humans nowadays respond to different stimuli, and probably in the past as well. I think we have to be really careful how we interpret the past.

Marc Kissel:

It's really interesting, too, to think about how do these films in certain genres clue us in to the common belief at the time, as to what is our innate nature? With that setup, there are reasonable people can disagree on this topic. Some scholars have argued that war is very, very old. Stephen Pinker, probably the most famously, recently, pervasively argues fairly cogently that humans may have been very war-like, very aggressive, very violent, up until state level societies began. So up until we're living in states with kings and queens and rulers, and that when that happens, states act as sort of a peace-ifying element and make us less violent.

Marc Kissel:

So while our innate nature might be war and violence, state-level societies actually lower that ability, and so make us less violent because we are affected by living in state societies. On the other side of the coin, folks like Doug Fry and others have argued that states are actually one of the main causes of warfare, that we are perhaps not naturally warlike but living in a state, having a queen or a ruler say, "Go fight," we're being tricked into using other tendencies in a really, really bad way. I will also point out that both these scholars and most folks writing about this take a very more nuanced approach. But sort of popularly, that's how the debate has been suggested.

Marc Kissel:

Sometimes it's called the hawks versus the doves. The hawks be the ones that think we're innately violent and warlike, the doves maybe the ones who think we're innately peaceful. It's the states that sort of make us be warlike.

Marc Kissel:

This leads, I think, to the main question. What I think is somewhat the problem with this debate, which is it's very, very tricky to define what warfare is. Because your definition is going to affect your ability to see it in the past. I just took one definition here that I sort of like but people can disagree, but we can think of it as sort of organized aggression and violence between socially distinct or autonomous groups of people. What I sort of favor about this definition is it lets us apply more evolutionary thinking. Because the point is modern warfare with drones is very, very different than warfare was like 100 years ago.

Marc Kissel:

Or if we want to look at some of the chimpanzees. Chimpanzees will occasionally go on raiding parties and they will kill other chimps that they run into, and sometimes even eat those chimps. If that's warfare or not often depends upon how we define it. That's why I think there's a lot of debate here. Because when you look at the archeological record, your definition is going to sort of influence the way you sort of look at the data. In other words, we often say, "I wouldn't have believed it if I didn't see it."

But sometimes you wouldn't have seen it if you didn't already believe it. I think that is something to think about as well, as I sort of go over the archeological evidence of what we know about the past.

Marc Kissel:

I'm always told to prove that I know what I'm talking about. I've been very lucky to be able to write on the subject for the last couple of years, and along with my colleague Nam Kim, we've been thinking about, well, how do we think about the emergence of human warfare in a more evolutionary perspective? In thinking about the fact that warfare might have been really, really old. But the way in which it was contextualized and patterned would, perhaps, be very, very different than the way we see it today.

Marc Kissel:

The problem is the data we have access to are pretty difficult to interpret. As a quick overview, there's different datasets we have access to to think about what was it like in the past? And did we have these warfare tendencies? In the upper left we have sort of a cartoon of the chromosomes of DNA, reminding us that there's a lot of, perhaps, genetic components to these things. Maybe there are genes that make us more likely to be violent. And perhaps we can look at those genes and trace the evolutionary origins of those, particular versions of those genes. The problem here is we've tried to do this and it doesn't seem to work very well. 10, 15 years ago, everyone was talking about warrior genes.

Marc Kissel:

But the point is that genes are only working within a certain environment. There's a certain version of a gene that you can inherit that will make you more violent, but only under certain conditions. If you don't meet those conditions, you're actually less violent than most people. I think we have to be really careful to say genetics is going to actually give us a clue here. No, we can look at the non-human primates like I just mentioned and say, "Well what do they do? Between six and seven million years ago, humans and chimps split, so that last common ancestor of human and chimps, what was there behavior like? Perhaps we can look at chimpanzees today and say, "Well maybe they'll give us a clue as to what life was like seven million years ago.

Marc Kissel:

Though we always have to remind ourselves that as humans have evolved for the last seven million years, so, perhaps, have chimpanzees. And looking at what chimps do now can give us an analogy to what warfare might've been like in the past. We always want to remember that they're modern chimps living in a modern environment, affected, of course, by humans being here. In the lower right is look at archeology, look at paintings and writings and structures. Look at walls, like the [inaudible 00:18:11] Civilization. Or perhaps even more famously, you can think of the walls at Jericho and these famous sites.

Marc Kissel:

Where we think of walls, we think a wall probably means people were fighting, because you'll build a wall to stop someone from getting to your town or your village. But I think we also need to remember that with archeology and all this stuff, there's multiple ways of interpreting what we see. You might build a wall to keep people in. Or maybe you're building a wall because you want to control who gets into the city or the village in terms of keeping track of them, or you want to tax them based upon the

goods they're bringing in. So you want to be careful of just seeing a wall means, okay, that means these people were engaged in wall.

Marc Kissel:

Finally in the one that received the most amount of attention in the upper right, is bioarchaeology. This is essentially looking at the surface modifications of the bones of humans and using that to interpret not only how they lived but how they may have died. So giving us a clue about that person's behavior. Sort of like a paleolithic CSI. We know quite a bit, looking at somebody's bones. But looking at somebody's bones, we can tell quite a bit about their behavior. I want to give you the overview of what do we know about warfare in the past mostly from the bioarchaeology?

Marc Kissel:

But before I do that, I also want to note something that I think is easily forgotten, is that the examples I'm going to give you are the exceptions to the rule. The exceptions because we notice them, we talk about them, and we write about them and we think about them. But we're not necessarily telling us about the majority of times humans are doing things. So it's sometimes sort of said as we need to be careful to not base our knowledge of human behavior on the evening news edition of human behavior. Because we're going to talk about the sites that show the stuff because they're the ones that are exciting, and tell us about interpersonal violence or war.

Marc Kissel:

But we're going to focus often on the ones that don't talk about these things. Though the ones that do tell us tell us quite a bit. This is the Tollense Valley in Germany, there about 3,200 years ago there was a huge battle. From the small part of the site that's been excavated, scientists have found, I believe, 130 and 140 individuals. We can tell a lot about their lives. We know they're between 20 and 30 and most of them seemed to be involved in conflict in the past. Maybe they were professional warriors. Because we see that the bones had been injured and then healed over. But we also know looking at that bone chemistry. You can look at the chemical makeup of a bone, you can tell generally where they come from. The people are coming from different regions. They're not all from that place in Germany.

Marc Kissel:

Though what's really fascinating is just fairly recently, folks have found genetics, ancient DNA, from these bones. And of the 14 or so individuals they sampled, they seem very similar in their genetics. The last thing I'll say about this site, and I wasn't going to bring this up but if we want to talk later, is that originally the interpretation was these are all males, all male skeletons. But with the genetics, we now know that 2 of the 14 or so skeletons that they got genetics from are actually female. Which again, tells us something about our preconceived notions of how we think about the past and how we think about warfare, often affects our interpretations.

Marc Kissel:

Some other sites we know, some others were famous blips in the story of warfare. About 10,000 years ago at a site in Kenya called Nataruck, we find essentially evidence of a raid, of a massacre. 12 or so people were massacred they weren't buried, they were just left for dead on the land. We can see through the bioarchaeology that it looks like they were killed. To be clear, not all archeologists accept this interpretation but it does seem like they had a violent end. Maybe at the same time.

Marc Kissel:

Slightly older, at 13,000 or so years ago, Jebel Sahaba is a site in the Sudan where it's actually a cemetery. So Nataruck is not a cemetery, Jebel Sahaba is a cemetery where a good number, maybe 50% or so of the skeletons in that cemetery show signs of a violent end, that they were killed by interpersonal violence. Some folks say this would be evidence of warfare. Much, much older than that, at a site in Spain called Sima de los Huesos, so 430,000 years ago at the time of the Neanderthals, or probably pre-Neanderthal things, were these individuals living at the site or dying at the site. And this individual, you can see him up there, got knocked on the frontal forehead twice, so kind of a murder victim, and then thrown into a pit.

Marc Kissel:

Is that warfare? Is that interpersonal violence? What does that mean? Is again a question that's really hard to answer. The final one I want to mention right now is Gran Dolina cave, which is about 800,000 years old. This site, 800,000 years ago in Spain, we have early human ancestors. These things are not fully modern humans, they're not homo sapiens, scientists debate what to call them. Sometimes homo heidelbergensis, sometimes homo antecessor. But they're not fully morphologically human-looking. What's fascinating about this site is whatever you want to call this group of human-like things, they're killing other members of their own species and then eating them. So sort of cannibalizing the remains of other early human-like things.

Marc Kissel:

When this was published, an anthropologist of war saw this and said, "This could be warfare, because maybe they're killing their enemies and bringing them back to the cave that they are living in and then just eating them, maybe in terms of a celebration." It's called exo-cannibalism, eating folks who are not your relatives. Cannibalism is a whole different topic that Dr. Pobiner has spent a lot talking about as well. But I'll just say at this point that why people would do such a thing is highly contextualized, highly cultured. We have a hard time defining what this means.

Marc Kissel:

Sort of the point I want to make here, and I'm going to say this again, is that there's a couple of other sites as well that exist. But these are sort of just the ones we think about, the ones we spend time talking about. Whereas when I was in graduate school, my colleague and I tried to sort of count how many sites exist that don't show signs of warfare. There's a lot more of those, but those aren't really talked about. They're not mentioned, because they don't show this interesting pattern that we want to talk about. That's sort of why I've been thinking about this peacefare warfare thing. That's what the standard debate is. I want to mention one more aspect of the research I've done, and then sort of go to what I'm thinking about now, then hopefully take your questions.

Marc Kissel:

This is just to show you there's even earlier sites, like 1.5 million years ago, we find an australopithecine has a cut mark that looks like he was being cannibalized. How I got into thinking about this was through a couple of different routes, but one of them was sort of precipitated by this really interesting debate that's going on in the literature about war group numbers. The debate here is mostly just situated with the work of Larry Keely who's an archeologist who studied this question of early war, is suggested that we tend to forget that warfare could be old, is that he noted that in foraging populations, so in gatherer,

hunter populations where they're not growing their own food, that the number of people involved in war is about 40%.

Marc Kissel:

But that that population, that percentage, drops very quickly when you get to what you call state level societies. In the state level society, only about 1% of the people are involved in war. This is being used not by Keely himself, but by others have been used to suggest that we are more peaceable now because of nation states, because less people get involved proportionally in these violent effects. So my colleague Rahul Oka, and along with obviously Augustin Fuentes and Sue Sheridan and Nam Kim and Mark Galitgo, we sort of looked at this question. It was kind of a fun project, and I just mentioned this because it shows the interest level of these things, that we published this and thought no one would pay attention, and then they actually got a lot of attention, is that we looked at population and war group size from 300 societies in different historical conflicts.

Marc Kissel:

What we argue is yes, as population goes up, the proportion of people involved in the conflict decreases. But that it's not because states sort of prevent violence but rather other factors make it harder to involve many people. What we mean by this is, if you have a group of 100 people, you can easily put 40 people, 40%, into a war group. You can train them and clothe them and feed them. If you have a population of 100 million, you can't put 40 million into a war group very easily, because you can't feed them, you can't control them. This sort of scaling law tells us a bit about some of these issues.

Marc Kissel:

Just to point out that we thought no one would pay attention, and it made the Russian news. Which I thought was pretty cool. We also did, and this is where it's kind of controversial, is we sort of said, "Can you calculate the number of individuals in conflict accounting for this scale of population. Is there a way to do that? We tried to do this, and it was a lot of hedging and a lot of assumptions. It sort of seems like did we take into account the scaling issue? Large scale and small scale societies don't invest in a different amount of people or energy into sort of an inter conflict.

Marc Kissel:

Which is not proof that we're less peaceable now than it was in the past, but I think sort of something to think about. Yeah. This is those values that we sort of came up with. What we were able to show is that over time, investment and conflict changes, that's World War One over there. The thing we've been lately thinking about is how can we use this to think of more complex patterns? With the six or so minutes I have left, I want to say about the so what? Why should we care? What does this mean? How do I take these data sets? Given that of course, was a lot of controversy.

Marc Kissel:

I would suggest that before 10,000 years ago, before the Holocene, the modern epic, there's not many unequivocal signs of sort of warfare and violence. But it doesn't mean warfare didn't exist. Because we have to think about warfare in this broader context. Earlier versions of war might not look like the way we expected to look today. But that the basic elements of cooperative decision making and strategies to use aggression and intimidation may have existed. This is where I think there's links between this work and sort of the origins of symbolic thought. Because to my mind, one of the main differences between

the ways humans do war and sort of a non-human animal might do something similar, is that we have ways of sort of thinking differently.

Marc Kissel:

Because we can look at a region, an area, a waterhole and say, "We don't want to defend that just because it's a resource, we want to defend it because it has ritual significance, it has historical significance, it has culture significance. It is my national significant that that waterhole is mine." And the ability to do that is linked with symbolic thought. So what Nam and myself have been suggesting is that the emergence of warfare and also perhaps peacemaking is connected to the emergence of human symbolic thought, because all things are intertwined.

Marc Kissel:

Perhaps warfare is not the things being selected for, but something that's following along with the emphasis that selection is driving to make us really good at symbolic thought. Because symbolic thought allows us to do so many things, including having complex language. Likewise, and here's where we get sort of a controversial, just thinking outside of the data, is that that would also suggest that perhaps in the past, human communities attempted to prevent outbreaks of violence and maintain piece. These are both responses to being able to think symbolically. War and peace are not two sides of the same time, they're responses to different kind of environments.

Marc Kissel:

To note today, peace is a really strange concept because who's at peace depends a lot about how you sort of define the term. A nation might be at peace but there's still structural violence and ecological violence and slow violence, and many more complex things going on there. Where we're working now, and where we're starting to begin thinking about, is that if you know war and peace are these outcomes of collaborative strategies, that require complex cognition, and what does that mean? That symbolically mediated violence means that there's other symbolically mediated cultural practices and that peace is a sort of condition that's safeguarded, through these elaborate social networks, designed to avoid violence.

Marc Kissel:

Likewise, as awful as it is, warfare is a form of collaboration and it takes a lot to convince somebody, hey, you have to go fight these people you don't know because I'm telling you to do that. That is something I think is distinctively a result, perhaps, of this ability to think symbolically. Rather quickly, I don't think I would suggest more or less violent than our immediate ancestors, but we do have to think about the roles of other types of violence and I want to set the stage as well to point out that I think that sometimes these sort of grand narratives of human behavior and human origins and warfare talk about it being strictly male violence. I think that is something we also want to think about and push back on a little bit because the role of female aggression is sort of under theorized as perhaps the Tollense Valley example dictates.

Marc Kissel:

Two more points. Ashley Montague, who in the 1970s, was again a very prominent and well known anthropologist and a public intellectual, argued that we can't base our image of ourselves on false foundations. The point I just want to make today is that I don't know when warfare began. I wish I knew. What I do think is that these examples, while really salient and interesting, we want to be careful not to

think that that tells us everything about humans. Because the amount of times that we're not at war is probably much more common than the times that we are at war. With that, I think that questions like these require anthropological thinking. That's sort of my last point.

Marc Kissel:

I want to just really quickly thank Briana and Amanda for setting this up, and the Smithsonian for hosting. Nam Kim and Augustin are my collaborators, amongst many other collaborators as well. And Appalachian State University, my home institution, which I managed. It took me a long time to get that little gif to go back and forth. And I want to give Briana credit for saying Appalachian correctly because it took me a very long time to learn how to do that.

Briana Pobiner:

Thank you very much, Marc. My closest friend happens to also be a professor at Appalachian State University in the geology department, so that's why I know how to say that correctly. So we're going to jump into the Q&A because we have a lot of great questions. I'm going to start with a bioarchaeology question. Michael says or asks, we discussed evidence of violent deaths in Nataruck and Jebel Sahaba et cetera, which made me wonder, what techniques are available or employed to distinguish violent death from post-mortem bodily injury?

Marc Kissel:

So this is Michael? Yeah, thanks, Michael. Briana could probably answer this better than I could, because this is a whole thing, right? The answer is it is tricky. There's sometimes where we can do it fairly well. We look for if it's been a long time since the individual died and then the bone breaks, we can sort of tell that, we have signals to look at for how the bone breaks. People like [inaudible 00:35:44], but a lot of times watching bones in the landscape and seeing what happens to them. If it happened right after the person died, that's a little bit harder to tell.

Marc Kissel:

There is multiple lines of evidence, sorry, multiple things could lead the same line of evidence, is what archeologists call this tricky term, equifinality. So you're getting to the heart of this question. The answer is, sometimes we can do this well, but often that's why the bioarchaeologists argue. Because it is tricky, especially when yes, after 10,000 years, bones are going to break due to compaction, due to practices. Yeah. That's a great question. I think it is much harder, perhaps, than some of us want to believe.

Briana Pobiner:

Yeah, I would agree with you on that one. I'm going to go to another line of evidence, and question another line of evidence we talked about, our primate relatives. Gideon asks, what about chimpanzees versus bonobos? They're genetically very similar but have completely different societies based on how rare or plentiful their food resources were.

Marc Kissel:

Yeah. So as soon as I said chimps I'm like, "I probably should've mentioned the bonobos, right?" Yeah. If you don't know, chimps and bonobos are called sister species. We don't know exactly, we think one to two million years ago they split. The chimps are the ones that are best studied, especially on this warfare question. The bonobos are very, very different in their behavior. Most of what we know about

bonobos comes from zoo studies. They're harder to study in the natural world. But what makes bonobos so unique and so special is how they deal with violence.

Marc Kissel:

So chimps, the way they deal with violence, or sorry, the way they deal with conflict, chimps deal with conflict through violence. They use aggression and they show their canines. That's why if a chimp smiles at you at the zoo, it's not a good thing. They're trying to say, "Get away from me." Bonobos use sex to ameliorate tension. For them, if there's a tension, they'll use sex and male/male, female/female, to sort of make things less tense. I think that's a really good question. We simply don't know. Chimps have been the exemplar human behavior for a very, very long time.

Marc Kissel:

You know, I don't want to say too much that would get me in trouble, but I do think we sometimes misconstrue that as sort of direct evidence. I don't think bonobos are very violent and I don't think they eat meat that often so they're going to do very, very different. It's a very good point. Not just them, all the non-human primates. Some of them are violent, some of them are not. I think it's a very good point, that we have to keep a more varied look on this topic.

Briana Pobiner:

Yeah. Agreed. Here's a question, thinking of things being more peaceful from SM Cardiac who asks, if you are familiar with Dr. Brian Hare and Vanessa Woods Survival of the Friendliest, how does that theory mesh with yours?

Marc Kissel:

Yes. I have the book on my bookshelf. I teach three and a half classes a semester so it's been on my to-do list for a very, very long time. From what I've read about the overview, I think very similar, and I appreciate that question because I should've acknowledged that. The notion that yes, to sort of pivot that question a bit, I agree. I think that we overemphasize the role of violence. Sarah Hrdy pointed out years ago that if you put chimps on an airplane, they're going to kill each other. Humans though generally get along, right? Of the thousands of planes that land a day, we only pay attention to the time there's a fight on the airplane and somebody recorded it, right?

Marc Kissel:

I think that we need to maybe take a step back as well. That's why I mentioned the evening news edition, right? Humans are actually really good at getting along. We don't recognize that as much because it's not what we see in the media. But I do think, yeah, and thank you for the reminder, I need to read this book.

Briana Pobiner:

Thank you. I feel like that, I have a stack of books on my nightstand that also are ones that I want to read. So I feel that. Here's an interesting question from Gilbert. Did nation states simply control and limit warfare, not end it? Versus clans just fighting each other. Did they use it for their leaders' own ends? I think he means the nation states.

Marc Kissel:

Wow. Yeah. That is the \$64 million question right there, right? I don't know if this answers your question, Gilbert, but I will sort of say something about this, right? One thing we do know is that the way war happens in what we sometimes call traditional societies, that's kind of a problematic term. But we call them complex societies. The way warfare happens in many let's say non-westernized societies is they actually don't go for killing people. That's not the aim. They'll sometimes sit on the other side of the valley and throw javelins at each other, but they won't try to kill each other. And if someone does die, it's seen as bizarre and not what they wanted.

Marc Kissel:

I think in terms of, if I understand what you're saying, for the leader's own end, I would agree. My sort of skeptical view of this is what's happening is, people in charge. Right? A warlord or a general has a decision that I want this thing and they're able to use our pre-evolved abilities to get along well in groups, sort of see yourselves as a group, perhaps. So then say, "Okay, well that group is not you." Some scholars would say we're innately evolved to not trust strangers and not trust people who are not us. I don't know if that's true. But certainly we can be tricked into doing that very easily. I think there's sort of a good thing to be said that yeah, I think nation states just do it very, very differently.

Marc Kissel:

Nowadays we can't even think about it so much because we can't go anywhere where you're not affected by the globalized colonized countries.

Briana Pobiner:

Here's another factor that someone brings up in a question, Bill asks how about religion moving us from tribe to larger social units by providing structure to permit that move to state, state societies. I guess in there the question is, do you think religion factors into this in some way? And could we possibly even see that in the prehistoric record?

Marc Kissel:

Yeah. This is, again, a topic of a lot of research. The idea of, I'm blanking the name of who wrote Big Gods. But this sort of notion that the religions that have huge deities, that affects how people see the world and sort of as a change the human sacrifice of religion to a different version of it. In terms of how religion does that, I'm trying to think of the question. I'm sorry, what was it about? Can you repeat the question? I'm sorry, Briana.

Briana Pobiner:

Yes that's fine, I'm looking at it. How about religion moving us from tribe to larger social units by providing structure to permit this move to state?

Marc Kissel:

Okay, I see. Okay, yeah. Yeah. Possibly. I mean, religion does good and bad things, right? I worked, as you mentioned, a lot with theologians. One thing I learn a lot is religion and theology can do a lot of good, right? It can promote you not to attack somebody. We tend to think of being more aware, perhaps, of the religious conflicts that occur. Yeah. I mean, I don't really know the answer there other to say, I think like everything else, we need to really be careful to say there's one way it happens, right? Because there's various ways in which this happens, especially because religion now is very different than it was 1,000, 20,000 years ago.

Marc Kissel:

We know next to nothing about the religious behaviors of Neanderthals. But you know, I would assume they had something. Right? They're burying their dead, that would seem to suggest something about their innate religious ritual tendencies. So yeah, if I knew that, I'd be at Harvard.

Briana Pobiner:

Here's a good question that follows along that. That touches on something you mentioned. Gilbert mentions, can some of these deaths be sacrifices to a deity?

Marc Kissel:

Yes. I mean, there's some great examples. I don't know if you know Lindow Man, what was it, 2,000 or so years ago, this guy was killed and sort of sacrificed and thrown into a bog. It was like one of these elite individuals. Because it was put in a bog, it was anaerobic conditions, so the entire body was preserved basically. If you go to the British Museum, you can see it there. His fingernails were there. We know what he ate, and the signal that he was sort of sacrificed. As to the distant past, it's just going to be really hard to prove it, right? I will say that off the cuff that I would not be surprised if that happened.

Marc Kissel:

Just without the cultural context, it's going to be really hard to know. The Sima de los Huesos individual, the one who was knocked in the head twice, he was killed and then it looks like he was killed and thrown into a pit. Yeah, maybe that was a sacrifice. Maybe there weren't enough food that year. I think that's a really good question. Because I guess they're the kind of things we wish we knew. Maybe in a generation scholars will have a way to get to this. But right now I'm not really sure how we could answer that scientifically. But just off the cuff I would say I would not be surprised that that was happening.

Briana Pobiner:

Yeah, I feel like a lot about questions about the deep past is that we have to figure out exactly what evidence we would use to even address that question. Yeah. Here's an interesting question from Arnold thing about another line of evidence. Are there lessons to be learned of warfare of what he called primitive societies in New Guinea and the Amazon?

Marc Kissel:

I'm not sure if this is what you're talking about, but if it is, yes. There are examples of tribes, like in Brazil you the Yanomomo, or Yanomami. There's been a lot of research on this group because they are modern humans, but one of the things that's been talked about a lot is the fact that they seem to have a very violent culture. One of the things they'll do is they'll whack each other on the head with these long sticks. Sometimes they'll go out and raze and kill each other, kill other people. What had happened in the '70s and '80s was there was a suggestion, if you were one of these individuals who killed somebody, your fitness was higher, you had more kids. The problem is, that data is really tricky to interpret. There's a lot of assumptions that go in there and we also have examples from other groups where the people, the warriors, have less of a lower fitness.

Marc Kissel:

So I think the way I'll answer that question with that setup is, the lesson is to tell us that humans are human, and they do things remarkably different and for reasons that don't make evolutionary sense. It

does help us though, right? Looking at traditional warfare can clue us in to what life might have been like 5,000, 10,000 years ago. I'm a little bit skeptical that it can tell us a lot about 100,000 years ago. Because again, these are still modern humans, right? Again, the use of ethnographic analogy, looking at non-westernized people to tell us about the distant past is, I think, something we try to avoid now because it's fairly problematic.

Marc Kissel:

But certainly there's clues that can tell us what war would've been like.

Briana Pobiner:

Here's another question I think is similar to some of what you were just mentioning. This is from Stephen. He says, if the purpose of life is to pass on your genes, isn't warfare just a way of ensuring your genes are passed on rather than the other groups? Victor's genes are passed on the victor's populations. How many males have evidence of Genghis Khan's Y chromosome?

Marc Kissel:

Right. So the Genghis Khan example is great, right? Yes, there are a lot of Asian men today who seem to have a Y chromosome that shares a lot of similarities. Now, we do not know if that's Genghis Khan's Y chromosome. We can make assumptions based upon the age of that chromosome. But there were other people around the same time. We can make a historical inference. Yeah. There are a lot of examples about this that sort of do suggest this does happen, right? But whether that's Genghis Khan's DNA or somebody else's DNA is really hard to say, and we will never know, right? Because when Genghis Khan was killed, I think the story is they took the horses and the soldiers, they buried him. They diverted a river so that it would cover him up, his burial.

Marc Kissel:

Then when the soldiers and the horses came back, they killed the soldiers and the horses, so no one could ever go back to his burial site. I guess my response in general, thinking about this, is it is yes. Fitness is really important for human evolutionary reasons. But culture also affects our fitness in different ways. Yes, sometimes going to war might give you a higher fitness if you take a risk. But oftentimes it's not worth that risk, right? I mean for most people it's not worth, and maybe it was worth for the leader, but certainly not worth it for the underlings who are doing all of the actual battling.

Marc Kissel:

I think it just gets to this question of, how do we view the past? Who are we looking at? Are we looking at the elite or everyone else? Then how do we actually think about these things? Yeah, that's exactly where the field is moving now, some of the evolutionary of the topic is how do we actually get to this question?

Briana Pobiner:

Here's another different line of thinking. Interesting question from Patrick. How do you think climate change has caused warfare?

Marc Kissel:

I'm by far not an expert in this issue. But certainly, Rob Nixon has a great book called *Slow Violence* about environmental effects on humans and how that type of violence is not often discussed. In that sense, what I do know is yes, climate change is causing all these problems and usually affecting people from the global minority. Sorry, people from the global majority who are being more influenced by climate change than other people. As someone who reads this stuff, my opinion would be it's causing more wars to occur.

Marc Kissel:

Again, some people think we're living in a much more peaceable era right now. But you would think that especially the work done on water resources, if water is getting less and less plentiful and that can cause a huge problem. I guess my suggestion there would be yeah, to think about how to setup to get water to people because that's going to be probably the cause of what maybe the next war is. Also the plot of the movie *Mad Max*.

Briana Pobiner:

There you go. Thinking about the media. We have time for probably maybe two more questions. Here's an interesting one, it's very philosophical I think from Gerald. What does it mean for a nation to be at peace in the modern era when some nations have world destroying nuclear weapons aimed at adversaries?

Marc Kissel:

I'm trying to think of an answer that won't get me in trouble. Yeah. To be clear, I don't necessarily think we're at peace right now, nor do I think we're living in the most peaceable time ever. I think the folks who would argue that would say that was it MAD, mutually assured destruction, is what prevents those nuclear weapons from being used. And the argument that nuclear power is a good thing because it's better than coal, something like this. But yeah, it is true, right? Thinking about the idea that we are at peace now. For people living in the United States just ended a 20 year war, right? But does that mean we're at peace? Well no, of course not.

Marc Kissel:

That, I think, is the problem with these models that suggest humans are now living at peace. Because again, maybe interpersonal violence. Maybe global war conflict is decreasing. But other kinds of structural violences are on the rise, as we definitely know from reading the news and the question about climate change attests. Certainly yeah, I think that the answer is that's a great question to ask somebody who thinks this is easier to live. Because yeah it's terrifying, right? Especially for, it wasn't my area. Especially for, it wasn't my era, but people were living through the 1960s and all these missile crises.

Marc Kissel:

Now, too, right? I think it is something that is maybe under theorized in this debate.

Briana Pobiner:

Yeah that's a good point. Here's a multi-part question from Walter. So I'll do it in one part then another part then another part. Walter says, I had the great pleasure of reading your book. Thank you immensely for your excellent scholarship in today's talk. His first question is, much of the evidence of late Pleistocene warfare was found in European sites. Are there also sites in Asia, southeast Asia, the Pacific regions?

Marc Kissel:

Yeah. There are some sites in southeast Asia. I'm blanking on exact dates. I think Maba. There's some craniums. And Walter, if you send me an email, I'm happy to send you the list that show evidence of this. They're not as many. I think for a couple of reasons, right? It might be sort of where research has been done. There's a bias into where research is being done and what kind of research gets out there. But yeah, there are some examples. Southeast Asia has a lot more examples more recent in time. There's also sort of I think a preservation issue in terms of where you can find stuff as well, sort of taxonomic issues.

Marc Kissel:

My guess would be you'd probably find the same types of evidence if it was all equitable and equal. But there are just a lot of academic and taphonomic issues that we don't know as much about those regions.

Briana Pobiner:

Actually speaking of taphonomic issues, the second of his three questions is how much of the human skeletons were found?

Marc Kissel:

All right, so if I understand, for these examples it depends, right? I try to pick ones where there was good skeletal preservation. For the earliest days, there could be an australopithecine that has a cut mark on its jaw, that we just have a skull. There's usually not that much. And that also is to a good point of Walter's, right? That we're basing ourselves not just on an incomplete record but on an incomplete skeletal record, right? The problem is if you find a bunch of bones that don't have signs of violence, maybe we're missing the skull that does have signs of violence. This is something that my colleague, Matthew Piscitelli and I were trying to work on, and we almost gave up because it was so tricky to find how to answer this question.

Briana Pobiner:

Here, and I guess maybe this is a good question to end on, this is Walter's third question. Can you extrapolate with great confidence, your thoughts about warfare and peacefare based on scattered human remains?

Marc Kissel:

Yeah. And that is the question, right? I would say with confidence, no. I mean, I cannot say what these things mean because I'm pretty aware of the fact they're very scattered. They're not that common. Evidence of absence isn't absence of evidence, right? It could be that there's a lot more examples. When I put the slides together I was 98% certain that this morning there'd be announced a new site that shows warfare much, much older. I just assumed, because that always happens to me. I always get in this problem. Yeah. I cannot be confident.

Marc Kissel:

What I would be sort of semi-confident about is saying that I think humans in the past, 100,000, maybe even 300,000, were more similar to us than maybe we often believe. I know that's a controversial sentence to say, but that's where I'm beginning to think. I think humans were human. We're not more violent or less violent than we were 50, 100, 200,000 years ago. It's just the way in which that violence is

maintained and that may be a point to mention to that end, is that most of the examples we have are old. Like 10,000 years ago. But not really that old in sort of the human evolutionary record. If we really want to understand the stuff, we have to take this long view, which becomes annoying because then we realize that we actually don't know that much at all.

Briana Pobiner:

That's, with great humility, I think, to end going, "This is what we think we know and this is what we think we don't know." There's always questions left to be asked. This will conclude today's Hot Topic program. Please join me in thanking Marc for sharing his work with us. I'd also like to give special thanks to those who made this program possible, to the behind the scenes team who helped sort through your questions and answer some, to our donors, volunteers, and viewers like you. And finally, to all our partners who help us reach, educate, and empower millions of people around the world, today and every day. Thank you.

Briana Pobiner:

I hope you'll join us for our final Hot Topic program of the year, it will be next month on November 18th at 11:30am with Dr. Cara Ockobock from the University of Notre Dame on how humans survive in extreme environments. We're going to take off in December then we will be back in January with our hot topic programs. We'll put a link in the Q&A where you can find information about our upcoming programs and how to sign up for the Museum's weekly newsletter. That's really the best way to stay informed about our upcoming programs and learn more about the museum's research and exhibitions.

Briana Pobiner:

After this webinar ends in a moment, you'll see a survey pop up asking for some feedback about the program. Please take a moment to respond, we're very curious to know what types of topics you might be interested in for future programs, and we appreciate your input. Again, thank you to Mark, thank you to the participants, and thank you to our audience and we'll see you next month.

End of transcript.

[Return to the web page for the video, Webinar: The Evolution of Human Warfare and Peacefare.](#)