

Podcast Transcript

Version 1.1, 19 September 2019



Natural Selection in the Evolution of Religion

Podcast with **Armin Geertz** (23 September 2019).

Interviewed by **Sidney Castillo**

Transcribed by **Helen Bradstock**.

Audio and transcript available at:

<http://www.religiousstudiesproject.com/podcast/natural-selection-in-the-evolution-of-religion/>

Sidney Castillo (SC): *Well, now we are back at the RSP. I'm now with Professor [Armin Geertz](#). It's now the fourth day of the [EASR](#) conference in 2019, in Tartu, Estonia. And we are all very tired – but very happy to keep on continuing learning from colleagues, and meeting new people as well! It's lovely to meet you. Thank you, Professor Geertz, for being with us.*

Armin Geertz (AG): Thank you very much for inviting me.

SC: *And I know that you need no introduction, because you are a prominent scholar, but if you could be so kind as to introduce yourself?*

AG: Yes, I'd be pleased. I am working Actually, I'm educated as a historian of religions but at a certain point in my career I decided that I wanted to study American Indians. So I did [field work](#) with the Hopi Indians in Arizona, in 1978 and 1979. And I was very much concerned with their culture, their language, their worldviews and their rituals. But I was also interested in their psychology: the way that they tried to live their religion, live up to their ideals, which they have a lot of difficulty doing – like many people in the world of religion, they have ideals but have trouble living up to them – and all the kind-of tricks that they play with themselves, and with others, to get around these high ideals. And that's what moved me into an interest in psychology and cognition. So I was co-founder of what became a research unit called [Religion, Cognition and Culture](#) together with people in my department at the Study of Religion in Aarhus, Denmark – Aarhus University. And we discovered that we were not the only ones at the University who were interested in cognition and the mind, culture and things like that. And we discovered that there were people from all the sciences at the University who were interested. And we then got together and applied for money from the Danish Government, and

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got a very substantial amount of money so that we could hire a hundred and fifty people to help explore the intersection, or the interaction, between the brain, the body, the mind, culture, language, music, art, literature – everything concerned with humans. But it was called “[Mind Lab](#)“. So it was also an attempt to combine various methodologies – from both experimental methodologies but also through to historical methodologies, fieldwork, sociological and psychological methodologies and so on. And this sphere, this interdisciplinary sphere is something that I've been very much involved in. And I have been trying to take this tendency – that's happening all over the world, of course – but taking this tendency back to the history of religions and other disciplines like history, and literature, and archaeology and things like that, to try and get people to become engaged in some of the insights that cognitive approaches have reached – but also psychological approaches, neuropsychological approaches. And ultimately, we have spread out into all kinds of projects that range from brain scan projects, to laboratory experiments on pain, to fieldwork studies of people performing extreme rituals like fire walking, and piercing and things like that. But also testing some of the main hypotheses that have been developed in the Humanities, such as Durkheim's ideas about collective effervescence and how rituals sort-of reconfirm the group, reconfirm sociality and so on – just as an example. And, of course, testing some of the leading hypotheses in the cognitive science of religion. I helped establish the International Association for the Cognitive Science of Religion ([IACSR](#)) and currently I'm the editor of the [Journal for the Cognitive Science of Religion](#) with Equinox. And there you'll see that it is that same kind of blend of disciplines, from experimental studies, historical studies and so on. So this is what led me into my interest in evolution. If humans are – which I believe – are both biological and cultural creatures – we know that – our explanations must somehow deal with the fact that as a species we entered an environment that already had culture. This isn't something that *Homo sapiens* have created. It's something that other species, before and continuous with . . . simultaneous with, *Homo sapiens* was happening. Neanderthals, but also [Homo erectus](#), and many, many other species in the hominid line were cultural creatures. So my main criticism of the CSR – the cognitive science of religion – my main criticism is that this focus on looking at mental representations as a causal explanation for cultural variations is not quite enough. And mainly because we are born into a cultural frameworks, and networks, and so on and I think that any proper evolutionary explanation of the emergence and evolution of religion should deal with all those factors and not just find one causal factor. It just doesn't work. We're much too complicated creatures. And, by the way, a lot of creatures are also complicated and there is no one single causal factor in the development of life.

SC: *That would be like one of the main critiques of CSR since its establishment 20 years ago.*

AG: Well, you know, the cognitive science of religion arose, among other things, also as an

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expression of evolutionary theory – evolutionary assumptions about how religion arose, and how it's passed on. [Pascal Boyer's](#) work on tradition – he had always been interested in tradition: what kind of psychological mechanisms are involved passing on tradition? And then, his very famous [hypothesis](#) about minimally counter-intuitive ideas. He used this as an explanation for what kind of ideas are passed on from generation to generation. What kind of ideas are we attracted to? And these religious perspectives, it usually involves ideas about creatures who are counter-intuitive in the sense that they can do things that normal humans can't. So they can fly in the air or they be invisible, or they can transform themselves into a statue or a tree or whatever. These are all violations against our normal human intuitions about the world, about the physical world, biological world and so on. And it's a good theory. One of the problems is that it's not the only cause – and is it a cause at all? We don't know. Because there are social factors as well. Traditions are passed on for reasons, by people who organise themselves into social groups. And once we accept that, then we have to look at other causal factors. And this is where sociology comes into the picture, and where theories in evolutionary sociology are relevant to our understanding. So, basically, my argument is that focussing on mental representations is not enough. It's important but it's not enough. And recent work on cognition as being embedded, and extended, and enacted, and so on are very relevant and we need to deal with this in the cognitive science of religion. We need to somehow integrate these new movements and these new ideas, so that we can better understand humans and better understand human cognition.

SC: *I think that delves into more of what your presentation was, a couple of days ago.*

AG: Yes.

SC: *Speaking about evolutionary forces that are at play in human history. Can you differentiate or elaborate on those for us? We understand that it's not necessarily what this is about, but since you have mentioned it, there are, of course, traditions that grow from there, that would be very useful for us.*

AG: Yes, because it's quite obvious that a lot of the evolutionary theories in recent times – from evolutionary psychology to cognitive science of religion and others who are interested in evolution – try to explain everything in terms of what we call the Darwinian model. But actually it's the modern synthesis that we're talking about, ok? So this is understanding evolution since the 1930s and onwards. And what we're arguing in our book, [The Emergence and Evolution of Religion by Means of Natural Selection](#), is that the Darwinian explanation can only go so far. Our biological evolution has happened with the same mechanisms that all other living creatures have been through, and our particular

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evolution in the hominid line led to creatures with a particular brain, and certain behaviours and things that can actually be explained from a biological perspective. But one of the curious factors is that we're cultural creatures, deeply cultural creatures. And we're very social creatures. So we need to draw on theories that also deal with social evolution, cultural evolution, and this is, of course, a very difficult issue. Because at the end of the nineteenth century a lot of it was ideological: it was the Western civilisation that was the top of the hierarchy of evolution; it was teleological, and so on. The authors in the book consist of Jonathan Turner who's a sociologist, Alexander Maryanski who's an anthropologist and a primatologist as well. My colleague Anders Klostergaard Petersen who's a specialist in ancient religions and early Christ religion, and myself, decided to try and apply cultural theories and sociological theories to evolution. And so one of the things that Alexandra Maryanski has discovered, through a [cladistic](#) network analysis, that our closest relatives – the apes, the chimpanzees and bonobos, but also gorillas, and orangutans, and so on – have very loose social structures. They're not like the monkeys or the baboons who have very strict hierarchical societies. So what happened? How did these loose, social, noisy creatures, how could they move out into the savannah and survive, with the *Homo* line? And it seems also, through cladistic analysis, that our emotional areas were being developed for millions of years, through *Australopithecus* until the first [Homo habilis](#), the *Homo* line arose and left the forest and moved on into the savannah. And so we're arguing that this expansion of the emotional areas, which is twice the size of the chimpanzees' emotional areas, made it possible for us to develop very complex emotions and feelings. This then could lead to the development of family, and secondary emotions, and so on, that would make it possible for a group to organise themselves into a very cooperative group that can survive on the savannah. And, of course, we had tools by that time as well. And then, with the development of the cortex, all of these emotions just took off. I mean they were supercharged by the development of our cortex. But that's not the whole story. That's the story of creatures that left the forest to move onto the savannah. They had to organise themselves. And this is where sociology comes into the picture. They had to organise themselves so that they could deal with new environments, deal with new threats and new insecurities and so on. And so we're arguing that there are at least four other selection mechanisms in the history of religion, in the evolution of religion.

SC: *So this is a different issue, I mean (audio unclear). But they divide with differences themselves – in a sociocultural way or something like that?*

AG: Yes. Because what we're arguing is that it's still selection that's going on. And a lot of it is blind, but a lot of it is not, because humans have motives and they try to take control of their own evolution.

And we've done that ever since we've got a symbolic competence. We literally been able to – maybe
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not from the start – but, at least, talk our way into new ways of organising ourselves and new ideas and values and so on. This would be the cultural aspect as well as the social and the cultural mechanisms. And so we're saying, one of the mechanisms We've drawn on the names of people from the old sociology not because we accept everything that they've said, but because some of their insights are still relevant today. So this first challenge moving on into the savannah was simply to organise themselves. We call that “Spencerian Type One”: to deal with both our needs as human beings – especially emotional needs but also, of course, survival needs – and a way of gathering around essential symbols. We call it a totem but we're not thinking of totemism as such, but some kind of a symbol for the group – of the values that the group cherish and so on. And then, when you get several groups who are beginning to compete in a particular environmental niche, these are a different kind of selection pressures that are at play. And this we call “Durkheimian” but not from Durkheim’s [book](#) on religion, but from his [book](#) on social organisations. So it's kind-of an ecology of social movements trying to survive in an environment. The next is when societies develop into complex and compact groups of people in cities, and so on. But also societies that develop empires, and expand, and go out and engage in global warfare, and subjugate other peoples and other cultures. Then the role that religion plays is much, much different than the role that religion plays among hunter gatherers out in the hostile environment. And here you find that mostly religions, religious organisations, become complex. And they also either support or they go against the polity, the political organisation. We call that “Spencerian Type Two” selection pressures. And finally, within a society there is often discrimination against various groups of people. And this discrimination can be at all various institutional levels from, for example, various domains, or special groups or neighbourhoods or whatever. And this could lead to a foment of dissatisfaction with the system. And it could end in violence with a revolution; it could end with that group being put down, whatever. These are different selection pressures and religion plays a different role as well in these. So, what do we mean by selection pressures? Well, what we're talking about is that at each level in a society, from both the inter-societal – but also society in general – to domains like law, education, and so on down to more close groups, and finally to some other groups and interactions at a personal level, there's selection pressure going on. By that we mean that people are under pressure of some sort and have to deal with the situation from individuals all the way up through society to groups and so on, have to deal with these selection pressures and make choices. OK, so in a way it's both blind – there are pressures that are there – and at the same time it's teleological because people want to improve their situation, or they want to make it worse for other people, or whatever. And we need to have that whole complex of interrelations in mind, both at the social level and the cultural level. Because the cultural ideas, philosophies, and norms, and values, and so forth play different roles at each of those levels. And

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under different selection pressures. So this is what we're trying to do in our book. And I think it will help us to be able to explain things and not feel so bad that we can't directly apply biological theory on human culture and social situations. So one of the examples that I use to show what we're talking about is, for example: if a parliament decides to change the law on education because they want to develop certain kinds of citizens, citizens that are instilled with certain kinds of values, it can lead to pressure all the way down through the system. To the organisation of schools, the teachers, their unions, but also the parents and of course the children themselves. And they can also push back. They can say "Look we don't like this. We want it to be organised in another way. We want our teachers to have more time to prepare their classes. And we want better wages for them. That's very important." And this will then send pressure back up. And maybe it will affect the politicians. Maybe not. And this is all a very dynamic situation. And a lot of it is evolutionary. A lot of it is blind. But a lot of it is also motivated with goals.

SC: I think that's another understanding of how social processes go together, when we have this scope in mind.

AG: And it's important for us to pay attention, as scholars of religion and as people who are interested in the cognitive science of religion, to look back at what sociologists have found and at the same time what cultural theorists have found, instead of trying to reinvent the wheel or to find just one explanation – the so-called magic bullet that explains everything. And this is why I argue, coming back to my original point, that mental representations are only a small part of what it is to be human and what I consider to be cognition, which is not just what's going on in the brain.

SC: Excellent. So it has been a pleasure to have you here. We've had a lot of insights from your interview and we hope to have you again.

AG: Thank you very much. I enjoyed very much being with you.

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