



Darwin now

Evolution and Humanity

Rissa:

The relationship between human beings and the rest of the natural world was an area of lively debate even in Darwin's time.

Steve:

I think one of the reasons that so many people in 1859, the time of *The Origin of Species*, were so worried about Charles Darwin's theory of evolution, was that it seemed to knock humankind off some kind of special pinnacle upon which it had been placed by God. Everybody thought, and it's a not unreasonable thing to imagine, that humans were entirely different from everything else. Queen Victoria went to London Zoo once and was quite shocked by the orang-utan because it seemed to her, I think she said painfully and frightfully and disagreeably human.

Well now DNA tells us that we're really in physical terms not special at all, but to me actually that makes me feel as a human being, far, far more special than I ever thought before I knew about evolution. Because I know that everything that makes us human is unique. The sense of consciousness, for example, the willingness to look ahead, perhaps for many hundreds of years ahead, an understanding of history, speech itself – the fact that we can communicate complicated ideas to ourselves – curiosity, the ability to teach. All these things are absolutely unique to ourselves, and that to me, combined with the fact that we share so much of our DNA with apes, tells us not that we've been knocked off a pinnacle but that we're actually on a pinnacle far, far higher than we thought we were on before Charles Darwin did his work. We're far more special than we thought in all the ways that matter, and those ways are not necessarily in the DNA.

Rissa:

So can the combined tools of genetics and natural selection shed any light on those characteristics that do make us uniquely human?

Steve:

There's a new affliction which is now spreading through the world of the intellect, which I sometimes think of as Darwinitis. It's the idea that Darwin's notions explain everything about ourselves – about politics, about society, about the relationship between the sexes, about parents' interactions with their children. All these things can be explained by Darwinism.

I think we need to be very cautious. Having said that, of course, there are many, many cases where our own individual mental fate is controlled by our genes, and as a result by our inheritance, by Darwinism. The vast majority of people in long-term mental homes for example, are there for reasons which we more or less understand, to do with errors in their genes. We don't know why the errors are there, but it's a biological error, and maybe evolution will help us to comprehend what's gone wrong. There are some cases, it's pretty clear now, for example, that some people have genes that predispose them to addictive sorts of behaviour, so that if you drink alcohol, let's say, you find it much more enjoyable than people with different kinds of genes, and so you're much more liable to become severely addicted and damage your health.

So I think Darwinism is beginning to say a little bit about individual differences among ourselves in a way that we didn't understand before. What it's not doing, and I really think this is true, is saying anything very interesting about what makes us human rather than just another primate, just another animal.

Rissa:

We'll be exploring some of the unique aspects that make us human – such as language – later on in this series of podcasts. What certainly stands out is our remarkable growth as a species.

Steve:

We've become grotesquely abundant, humans as a species, simply because of our mental prowess and the way we stood outside the laws that control all other animals. We're about ten thousand times more common than we "ought to be", in inverted commas, if we were just another primate like a chimp or orang-utan living in nature. Now when you get that common, things are getting pretty dangerous, and we've seen it happening because of disease. Because if you're a species that's tremendously abundant, constantly meeting other members of its own species, constantly moving around, is at risk of epidemics, and it's no mistake that we had huge epidemics, for example, the Black Death and so on. HIV AIDS has spread with air travel, and no doubt many more epidemics are waiting just out there. So that may be something we can't do anything about, and then you'll see evolution, Darwin's natural selection, really coming into play with a vengeance.

Rissa:

The consequences are sobering, as we can already see from the fate of other species.

Steve:

Most species in the end go extinct. There aren't many sabre tooth tigers left any more, and I'll make another prediction, which is that by the time of Charles Darwin's 300th anniversary of his birth, there will be no wild big primates left at all. There'll be no chimpanzees, no orangs, no gorillas, or if there are any they'll be in zoos. They'll be extinct.

Now that'll be very, very sad but you've got to bear in mind that there have been hundreds and hundreds of other cases of wild primates which have gone extinct. In fact, if we look at our own living family, the family homo, homo sapiens is our Latin name of course, we're actually living at a unique moment almost, which we're the only member of our family that's alive. Even thirty or forty thousand years ago we had Neanderthals who are quite close to us, and if you go further back, there are often several different kinds of humans living at the same time, all of which have gone extinct. So, for us I think extinction will happen too, but I hope not too soon.