

## P IS FOR PHYLOGENY

'Phylogeny' is one of those words that just looks like an absolute mouthful. I forgive you if you're tempted to pronounce it 'Pngftgrdbpdf'. If you want to pronounce it like a scientist, say these three words: Fill, Lodge, and Jenny. Then join them together. Fillodgenny. And then put the stress on the 'o'. Fillodgenny. Phylogeny.

The word is defined in the song. "A phylogeny / Is like a family tree". Your phylogeny includes you, your parents, their parents, their parents, and so on back and back and back through time. The interesting thing about phylogenies is that they start to link up. Your brother or sister's phylogeny links up with yours after only one generation. At my wedding, my dad, who's interested in family trees, revealed in his speech that he'd done some research showing that my wife and I are eleventh cousins, meaning that our phylogenies link up if you go back eleven generations (to a Mr George Bruce, who lived between 1600 and 1643).

If you go back a few thousand years, pretty much all the people on Earth will find that they are related to each other in one way or another (in other words, their phylogenies link up). Another few hundred thousand years earlier, there lived one individual (a woman we call "Mitochondrial Eve", for reasons I won't go into here) who is directly related to every single human who is currently alive – she is the phylogenetic ancestor of the entire human race (though she was not the first human, nor was she the only human at the time).

To find the point at which the human phylogeny and the chimpanzee phylogeny join up, you have to go back about 5-10 million years. Another 160-odd million years earlier, and our ape phylogeny joins up with the phylogenies of every other mammal on Earth – all the rats, whales, kangaroos and cocker spaniels converge on a single species which was the first to produce milk for its young. It looked a bit like a shrew. But it wasn't a shrew.

Keep going back and back and back, and eventually you'll find the common ancestor to all life on Earth – the living thing that links us to trees and mushrooms and bacteria. All the little phylogenies will have merged, and you'll have one big phylogeny.

It's perfectly normal to think of yourself as important. In fact, it helps our survival, and the survival of our genes, if we're able to believe that humans are the most important animal, and that we and our families are the most important humans. But, as soon as you start looking at phylogeny, you realise that that really isn't the case. We're really just animals, and all the animals are just as important in their own ways as we are.

This is a punk song. Punk is a music genre that started in the 1970s, and usually has an anti-establishment philosophy, which means that punks disagree with the things we've been told to believe, and want to challenge us to think differently. This makes it the perfect genre of music with which to challenge the belief that humans are best.