

Member Lecture – 31 August 2023

The evolution of modern humans? Dr Joanne Wilshaw, WEA tutor

Questions answered post-lecture

Q1 Are we continuing to evolve? what will we look like in another 5 million years, assuming we still are here in 5 million years! What about the hypothesis that our little toe is going to disappear (as we use less and less for walking)?

Evolution as a process never ends as it were, so yes, all living things continue to evolve. I cannot say how humans may look in 5 million years especially since humans can impact their own evolution via things like artificial gene selection, medical intervention etc.

Little toes have been around for millions of years, but if there is advantage to losing it, that may occur in time ...slow, evolutionary time!

Q2 Will the introduction of Artificial Intelligence technology speed up or expand the DNA analysis/ comparison process?

I think the answer to this has to be yes, given how much data analysis is required in sequencing – the more mundane sifting/comparing can be done by software much more efficiently than by a person.

Q3 Do you have any comments on the recent find of "The family who walk on all fours" said to be another lost-link?

I don't know too much about this case, but there have been a few such cases historically – it seems as if the individuals involved have adapted to walking on all fours behaviourally speaking for various reasons, rather than there being a genetic basis for their quadrupedal movement.

Q4 There must be lots of failed Homo sapien mutations all over the place through generations. What about the 'rejects'?

If mutations are negative or harmful they tend to die out in tribal peoples, but of course in the 1st world we can save individuals with genetic disabilities and illnesses and so the mutations may persist if those individuals have children. Most mutations are neutral and neither help nor hinder the host and so may persist/die-out. Positive or helpful mutations such as disease resistance will often persist assuming the individuals concerned have children and the trait is passed on.



Q5 Could the secret of Homo sapiens' dominance over other hominids be down to the simple fact that on average they survived much longer? Say living to 30 or 40 rather than 20?

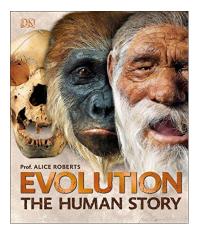
This is definitely a relevant feature – survival improved as problem-solving abilities/tool making etc. increased and thus Homo Sapiens lived longer than other Homo species.

Q6 Apparently Darwin on his deathbed regretted his theory of evolution and converted to Christ. Is this true?

I don't believe that he regretted his theory, but he was aware that a rather large can of worms had been opened!

He was upset by the backlash he received during his life time because of the theory but I think this was because he knew that a lot of people didn't want to hear what he was saying as it made a huge difference to the "moral compass" of a great many people and questioned beliefs in Gods and the bible etc. I am not aware of him converting to Christ but I know that he did speak of wishing there was an afterlife so that he could continue his work and he also "wished there was a God" after his 10 -year-old daughter Anne died of TB after suffering terribly with the disease.

Useful links and resources for further reading



Forthcoming WEA courses by Dr Joanne Wilshaw

<u>History: Introduction to Human Evolution (Q00010925)</u> – starting 11th Sep, 10 sessions (online)

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