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Archeology's Contextualization of Seemingly Modern Phenomena

Chris Scarre in "The Human Past" describes archeology as illustrative of the full diversity of human culture and society and a display of how humans have changed and adapted, both to external factors such as climate and environment, and to new social circumstances and technologies. There are a few reasons anthropology's approach is useful, but most importantly because it contextualizes modern human interactions and where they fit in our broader story as a species. One of the best examples is the study of hominid cranial capacity.

A recent study published in the Proceedings of the National Academy of Sciences (PNAS) suggested that IQs are decreasing as a result of their environments. This is a sensitive topic, that managed to generate plenty of articles with very grabby headlines, all suggesting that the plot of "Idiocracy" is coming true. (Essentially that smarter people have fewer children, therefore contributing to the dumbing down of the human race.) At face value, this is excellent evidence for conservatives. They would claim that the "environments" suggested by the study are due to greater globalization, a somewhat rise in rights for the middle class, and more of a focus on social justice. If one were to look at the history of the past thirty years alone and then compare it to IQ scores, they may reach the conclusion that progressive values are dooming our species. However, if they were to zoom out and consider all of hominid history, they would notice that human brain sizes have been decreasing for the past 40,000 or so years. *Homo neanderthalensis* actually had a cranial capacity reaching 1,980 cc, whereas modern man has a cranial capacity reaching 1,200 cc. Does that mean that our neanderthal relatives were actually smarter, and perhaps should not have been bred out? Possibly. But these early human ancestors also used the same Achulean tool-making method for 1,450,000 years.

All of this to say, there are no simple answers about what makes humans unique or what we should expect from the forthcoming era of human evolution. Anthropology, however, manages to shine a light on some of our behaviors and overall trends, using information from our prehistorical counterparts. This is what makes it useful in modern day.

Details to Remember About Evolution

The theory of evolution was further developed by Charles Darwin in *On the Origin of Species*, published in 1859. This development came on the heels of three discoveries. First, early human tools were found in European rivers, which indicated that the present era of human tool-making had some basis in our ancestors. Second, an ancient hominid skeleton was found in Germany, indicating that our current bone structure was not how we originated. And third, Darwin had traveled to the Galapagos and found that different kinds of finches had different phenotypes that made them better at eating different things or surviving in different locations.

Essentially, what he had found was that successful individuals from populations are more likely to breed with other successful individuals until their features are the norm for the genetic group. This is evolution.

There are two things that are useful to keep in mind about evolution. First, that individuals do not evolve, populations do. One individual may have a mutation that makes it predisposed to survive, but that individual is an outlier until it and its children have bred enough that its features are standard. And second, that there is no grand design. This is a mistake that even otherwise very scientifically minded people make, but nature does not choose features or intentionally invent things. DNA causes mutations that can make an individual worse off, better off, or not affect their lifestyle at all. It is a survivorship bias situation- we just do happen to only see the successful biological curiosities because they are not bred out, and we assume that there is a grand design of some type. What really happens is that a collection of mutations may determine whether the individual prevails or not, and then those features get carried forward.