A quick history of the evolution of Human intelligence

The evolution of human intelligence is a captivating journey through time, revealing the myriad factors that have shaped our cognitive abilities. As we trace the development of our brains from early mammals adapting to survive in a world dominated by dinosaurs to the challenges faced by our hominid ancestors, we gain a deeper understanding of the forces driving the growth of human intellect. The Ice Age, cultural evolution, and the development of knowledge have all played pivotal roles in shaping our minds. This fascinating exploration of human intelligence uncovers the complex interplay of genetic, environmental, and cultural influences that have contributed to our cognitive capacities throughout history, offering unique insights into what makes us who we are today.

The uniqueness of the Human brain is the product of aeons of evolution. It is quite extraordinary to imagine that people with the same brains as us were alive. Thousands of years ago. One example of this is a painting that was found in a cave in the south of France made 30,000 years ago that is strikingly reminiscent of a painting called Minotaur assaulting girl made in 1933 by the artist Pablo Picasso.

One of the challenges of understanding the evolution of the brain is that, unlike skeletons brains, do not fossilize.

Of course, many essential features of our brains, actually evolved many millions or billions of years ago, for example, the ability for cells to communicate with one another through electrochemical pulses.

The first mammals, evolve around 200 million years ago.

Pressure to survive in the world of the dinosaurs probably helped mammals' brains to evolve and become larger in relation to the size of their bodies. For this reason, early mammals were also probably nocturnal so that they could move around at night time when dinosaurs were not active.

As our ancestor's brains filled their skulls, we can tell a certain amount about brain evolution through the remains of fossilized skulls. In recent years, CT scans have been helpful in studying the cavities inside intact, skulls without destroying them. It's likely that much of the early developments of mammal brains at this time was driven by the need to process sensory stimuli, particularly smell in touch later after the dinosaurs died out some mammals took to living in trees at which point, the three-dimensional movements needed when navigating moving from branch to branch would have put extra pressure on developing the visual cortex. Also, these early mammals would have lived in groups and it's believed that the need to navigate and understand social groups and their emotions and intentions was a big driver of the frontal parts of the neocortex.

The greater processing power this then conferred enabled our brains to develop an understanding of patterns, among the sensory data, that they were processing, forming the beginnings of abstract thought.

One thing that might have led to the expansion of our brain size was a mutation that weakened our jaw muscles. The bite muscle previously exerted so much strain on the skull but limited its size. It may have been just a random variation that led to a smaller bike muscle and a larger brain around 2.5 million years ago.

Equally, the development of weapons to kill animals so that we were able to eat more meat would have enabled the growth in our brain size due to the rich source of nutrients in meat. The first stone tools, known as Oldowan tools, emerged in the

hands of our hominin ancestors. These simple tools facilitated tasks like butchering carcasses and processing plant material, driving the development of intelligence by creating a demand for problem-solving skills. Evidence for the use of stone tools comes from archeological sites, such as those in Ethiopia’s Afar region.

The same thing goes for the discovery of fire and the ability to eat cooked food, meaning that our guts could shrink, as we would be able to drive more energy from cooked than raw foods

The development of language would also have led to advantages for those who could speak and communicate, which would’ve intern put pressure to develop even larger brains. However, they probably came to a point at which larger brain sizes would not have been more beneficial as giving birth to babies with larger heads is more dangerous and the brain is a very energy-hungry part of us. Therefore you would be more likely to starve and not pass on your genes if your brain was too large.

The appearance of complex culture and symbolism in Homo sapiens marks another leap in human intelligence. This development is evidenced by the creation of advanced tools, art, and jewelry, as well as the use of ochre for body painting. The exact causes of these advancements remain uncertain, but they may be related to increasing social complexity and the need for better communication. Evidence for these cultural advancements comes from archeological sites like Blombos Cave in South Africa.

Our ancestor’s brains stopped growing larger around 200,000 years ago. Interestingly, in the last 10 to 15,000 years. The average human brain in comparison with its body has shrunk by about 3 to 4%. This may have given lower brain power or it may have just been our brains involved more efficient ways to operate.

Interestingly, some have theorized that as we developed more complex societies and civilizations, this enabled those with lower intelligence as they would be more protected and have a greater chance of survival. Equally, in our own era, we have seen that often more intelligent people have fewer children therefore becoming less likely to pass on their genes to. This theory is propounded by David Geary at the University of Missouri-Columbia.

The Ice Age, which lasted from about 2.6 million to 11,700 years ago, might have contributed to the evolution of human intelligence. Harsh conditions forced early humans to develop problem-solving skills, social cooperation, and innovation. These adaptations, along with natural selection favoring individuals with better cognitive abilities, could have led to the development of greater intelligence in the human population.

In the last 5,000 years, human intelligence has continued to evolve, with cultural evolution and the development of knowledge playing significant roles. The accumulation and transmission of knowledge over generations have allowed humans to build on existing knowledge, leading to advancements in technology, science, and social organization. This process might have indirectly promoted the development of intelligence by creating more cognitively demanding environments and fostering intellectual growth. However, it is important to note that the development of intelligence is a complex process, influenced by a multitude of genetic, environmental, and cultural factors.

In conclusion, the evolution of human intelligence is an intricate tapestry of genetic, environmental, and cultural factors, shaping our cognitive abilities over millions of years. From the earliest mammals adapting to their environments to the complex societies and knowledge development of modern humans, our intellect has been molded by countless influences. As we continue to unravel the mysteries

of our past, we gain valuable insights into the ever-evolving nature of human intelligence. These insights not only enhance our understanding of ourselves but also help pave the way for a future where we can harness our cognitive potential to its fullest extent.