# How We Got Here?

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Imagine yourself, 100,000 years ago walking on the vast plains of the savannah. You would have been surrounded by the predecessors of the modern-day lions, hyenas, leopards, hippos, elephants and the list goes on... What enabled us to survive? Not just survive, but thrive? How would we ever catch much faster prey with just a spear? Sure, you can say that we were smarter, but what enabled us to become that smart?

The answer lies in the adaptation of the human species to the ever-changing environment. We adapted so well in fact that we transformed from easy prey for animals like leopards to one of the apex predators on the planet. We had reached the top of the food chain. This can be attributed to the extreme adaptability of our species as well as certain evolutionary drives that luckily pushed us in the right direction.

The earth experiences ice ages periodically. This is called the Milankovitch Cycle. This is due to the periodic tilting of the earth's orbit, which cyclically increases and decreases the amount of sunlight that the earth gets. According to the Savannah hypothesis, due to one such change in the earth's tilt around 3-4 million years ago, our ancestors were forced to abandon the trees as the tree cover reduced as forced to adjust to life in the savannah walking upright.

What makes us human is our intelligence. Brain tissue has a very high metabolism, such increased metabolism would have resulted from an enlarging brain associated with a compensatory decrease in the gut length to keep the BMR in check. This brain evolution would have been supported by a change to a high-quality diet, it is a diet containing meat. It is a fact that our omnivorous cousins like chimpanzees and gorillas are smarter than our frugivorous cousins like gibbons. But what fuelled this brain growth in the first place? There are two hypotheses put forward: 1) The first one is the hunting requires mental mapping and foraging that requires a smarter brain (prime mover); 2) Another

hypothesis is that hunting meat would have removed the constraints that had prevented our brain growth (prime releaser).

Coming to the physical aspect of it all granted. We were smart enough to create spears and harness fire. But how did we catch prey in the first place? It's because we have extreme stamina. More than almost any other animal. This might not be surprising to those who know of horse vs. human marathons, which are marathon races over 22 miles (35 km). Yes, even though the horses usually win, there have been human winners. Humans are so good at endurance running that African tribesmen have been asked not to hunt cheetahs as their poor stamina is easily exposable. What are the factors that help us? One of the most important factors is sweating. Many animals sweat, but a few do it for cooling themselves. Among the animals that do, unsurprisingly are humans and horses. Most animals dump heat by panting which they can't do while galloping. Hence all hunters have to do is chase animals at their slowest galloping speed until they overheat. Walking upright also enabled us to throw spears to hunt. Many other factors have been responsible like being hairless, having a tall body frame (creating more surface area compared to our size), which helps cool our body during running, longer legs compared to our ape cousins, and many more...

Now looking back at our humble origins, we must be proud of our journey thus far. But this pride must not be translated into arrogance. We must continue sharing the world with the animals we once used to share it with. Perhaps realizing that we are in fact animals will help us prevent further environmental damages that we have caused. We must think that we are part of this environment and ecosystem.