a 50 page overview

HUMAN BEING

DISCOVER WHAT IT MEANS TO BE A HUMAN AND HOW TO ACHIEVE ULTIMATE FREEDOM

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PREFACE

I have always been intrigued by why we exist and how we came into existence. Having been inspired by a few great books, on a fine day I decided to write a book, my first one, since writing requires a great deal understanding of what I know and I need to be authentic.

This book takes a simple approach in explaining various things that impact a human life and is intended to be short and precise. I talk about evolution, society, self, technology, human behavior, business, and finally human freedom.

If you want a thorough understanding of the topics here, consider reading dedicated books on the topics, you could refer to the reference section towards the end of the book.

I dedicate this book to my late father who shaped my life , and to my lovely wife and son.

EVOLUTION AND NEURONS

Our earth in the solar system is the only known planet capable of allowing life to exist. Around 13.8 billion years ago, Bing bang explosion happened, which gave rise to the universe. Then it took millions of years for the floating rocks to solidify and form into galaxies and solar systems. Followed by millions of years, a single cell organism came into life in an ocean. These organisms then grouped themselves together to increase their survival rate. They tried various combinations, called Mutations to find the best possible combination of DNA sequence to survive in an environment. Mutation helped them to achieve enough varieties to let them fight against the attacking organisms. No one knows why we exist but Mother Nature has created certain constraints under which every organism can thrive.

For example, take cheetahs, it's aerodynamically designed body type makes it one of the fastest animals. But it has its own side effects, the body temperature of a cheetah can easily reach maximum which could even kill it. And its mouth is not as heavy as a lion due to its head size.

Cheetahs cannot have a lion's body still be able to run like it does now. The constraints prevent them to over develop the body parts relative to other animals.

Tigers have their eyes in front while deer have eyes sideways. This gives tigers opportunity to spot deer from a longer distance while deer, due to its sideways eyes, can see a wider area to help them notice a tiger when they are close by.

So organisms survival is directly proportional to its ability to use the strength optimally. Every organism is programmed to produce its offspring, and to survive. When there is a tie between the two, a few animals[1] choose sex over survival due to their instinct. Why should organisms produce offspring? Because it's easier to destroy an old car than to maintain it.

Since nature has given equal opportunity to your competitor and you, and there are constraints in which you can use resources, organisms uses sex to produce offspring that may not be easily affected by the enemy. It's like restructuring your house when your enemy is about to identify your place to confuse him.

As we have seen earlier, we primarily want to survive and produce our next generation as our default instinct. Sexual attractions are nature's way to make sure we reproduce. Sexual selection depends on strength and

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[1] https://news.nationalgeographic.com/2017/02/animals-sex-death-cannibalism/

talent. Many animals choose their partner based on its ability to fight with other males and win. This ensures the females choose males with quality genes to have stronger offsprings. Some birds choose their partners based on their talent in building nests.

Evolution and our culture have worked together. Human consumed milk only during infancy, as we domesticated animals, the lactose enzyme got mutated to support milk consumption during later ages. This allowed us to depend on milk as one of the primary sources of protein and calcium. We can see a few lactose intolerant people who cannot consume milk products because of the old un-mutated gene showing up again.

Humans have taken greater advantage of evolution. We have almost beaten every animal in evolution by packing enough neurons in our brain to still be able to deliver through mom's birth canal, thanks to our malleable head which gets harder as we grow. This is not the case with other mammals where they have a rigid head, which prevents them from having a larger brain.

If you look at other animals, most would show their traits right-away, like dolphins are born swimming. They come pre-programmed for their environment while a human child can't even walk for many months. This is our strength, where we are born with a less wired structure to help us accommodate almost any environments from frozen land

to high mountains. Pre-programmed animals can't easily learn new things and it will affect their survival rate. Human evolution and neurons cannot be separated, they form our cognitive ability.

STORY OF NEURONS

Neurons are the brain's cells, building blocks of our brain. Everything we perceive is because of the connections among neurons and electric impulse they create.

So it's obvious that neurons play a bigger role in our day to day life and our behavior. Our brain is 7 times larger than it should be, based on the body to brain ratio found among other animals. And hence we have around 87 billion neurons on an average adult.

We have more number of neurons in the cerebral cortex which is responsible for higher cognitive functions" and intelligence. That is the reason an elephant which has a 3 times higher number of neurons than us is still not super intelligent.

What's the deal with neurons? Neurons require large amount of energy to operate, the connections are costly. To

save energy, it kind of caches[2] the connections. Say, you learn to drive a car, the neurons form a new route inside your brain, every day it gets stronger and stronger. After a few months, driving a car almost becomes automatic thanks to the synapses, connections among set of neurons, you can use pre-made connections to perform seamlessly.

These synapses cause most of the behaviors, like a sportsman's ability to react to challenge instinctively. As many as two million new neuron connections (synapses) are made per second in an infant's brain.

Many people get excited when they learn new things, as new neuron connections are being established. Change in food habits was an important factor as well in human evolution. Our intelligence increased when we spent less time on gathering food. Through fire, we started cooking food, which reduced the load on our digestive system. Easy supply of energy to the brain has improved our intelligence, human species thrived!

Human intelligence combines hereditary and habits. Half of our IQ is inherited while the rest comes from family and peers. As we grow up, we express our own, innate intelligence. We choose our environment that better suits

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[2] *https://gamedev.stackexchange.com/questions/101169/what-does-cache-mean*

our natural tendencies. There is a saying: “Hereditary loads the gun, habits pull the trigger.”

Our brain and neurons are complex to understand. “The Human Brain Project”, a large research team in Switzerland, is trying build a working model of a human brain. Humans want to understand the brain and build a digital model. This may bring in digital immortality. Alcor Life Extension Foundation[3] is a pioneer in this domain, they freeze the human bodies in a hope that one day we may be able to revive them.

Let’s get into genes, which are fundamental units in every cell including neurons. Human genes play a crucial role in our life they decide our appearance, how we survive, and react to an environment. Various genes control our behaviors. But the genes themselves need to get switched on to show their strength. But our stress levels are directly linked to their ability to get activated. Our vulnerability to infection, cancer and heart diseases are linked to stress we undergo.

In fact, how risk-taking we are is decided by the length of a particular gene. We see some people are more risk-taking than others. Dopamine level in our brain dictates the risk-taking ability. People with long set of a particular gene, have low responsiveness to dopamine, so they must take

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[3] *https://www.alcor.org*

more adventurous approach with life to get the same excitement.

Each organism, through evolution, is actually trying to pass the set of genes or information to its next generation. The genome seems an immortal, unbroken chain of link from the first gene to the genes active in your body now.

SOCIETY AND AGRICULTURE

Mathematically we can say we are all descended from a single parent. We now have around 7 billion human population, going back 100 years, we had 1/4th of this count. Continuing to go back in years, should give us just a few people as our original ancestors.

For some reason, our ancestors migrated from East Africa to other continents, it could be for food or internal conflict or due to increased danger or climatic conditions.

As we had discussed earlier, nature has made constraints within which we can act. Remember the laws of thermodynamics, energy can only be converted from one form to another. We must take food to be active. For food, we must depend on plants and animals. Plants and animal have their dependencies. Plants need water and light, animals need plants and other animals to feed.

So, primarily humans are dependent on animals and hunted them for food. This was the only primary action for millions of years, living in forests. This could be the reason we derive peace when living in a natural environment, say in a forest. We later used fire to cook food, around 1.5 million years ago. Then these hunter-gatherers started agriculture. This is mostly due to climate change where

long dry seasons leave more dormant seeds., where long dry season, leaving dormant seeds. An abundance of readily storable wild grains and pulses enabled hunter-gatherers in some areas to form the first settled villages by 11000 BC.

Without having to go deeper into agricultural practices, this process helped easily harvest food without having to go into forests. This way, humans settled in some places permanently giving rise to societies. A society is a group of individuals living together with common sets of norms. It has a common culture and territory.

Society forms behaviors of individuals by telling what is acceptable and what is not. This is to ensure smooth living and expectable social behaviors.

Within a society, we show favoritism based on the gene pool we belong to. The closer the blood relation, the higher the genetic match. We will care more for our family members, followed by relatives, and then our community. There is a natural affinity towards our own gene pool. There is a high degree of cooperation in this and is necessary for social living.

Our cognitive abilities help us identify good and bad, signaling our individuality like this is my son, my house. This behavior is necessary with larger groups of people living together. Essentially most things are group co-

ordination, like groups of genes working together forming a human, groups of members in a family coordinating together, families in a society, states in a country.

LANGUAGE

To survive and grow, every animal needs some form of communication among the group it belongs to. Humans should have used some form of proto language 2 million years ago, considering they had stone flakes [4] by then. But the form of language we use now could not have existed then. Agriculture and cooked food helped our chins to go softer, in turn allowing us to produce better sounds through our mouth.

Take a chimpanzee, their mouths are hard built to chew raw food while cooked food does not require such efforts to eat. Enough food gave us time to focus on other things giving rise to literature, arts. Early humans, before language, only used concepts to think. Say, he needs to go hunting .

Early language was primarily used to warn other humans of possible danger, with better language skills, our

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[4] *https://www.sciencemag.org/news/2015/01/human-language-may-have-evolved-help-our-ancestors-make-tools*

survival rate had increased. But how? Every animal is dependent on other animals, for a lion we are the prey. With survival instinct kicking in, every animal does its best possible to protect itself.

Now just individual skills are not enough to beat them in the competition, we need more hands to beat them. Humans with better communication skills had better chances of killing animals for food.

Going a little deeper, language is just a form of input to our brain. The brain sees patterns, as long as there is a consistency in the input and action, it would understand. Say, to your dog, feed a particular food on a specific time everyday, by calling out the same name. The dog would associate that word to food, whenever you mention that word later, it would go crazy.

Coming to how language influenced human behavior, we know a better way to express our needs to others. Chances of getting a favor from others has increased. The nature of language varies according to the needs of the society. Let's go back to society, it has created,

- Social status
- Religion
- Need for acceptance

SOCIAL STATUS

Social status is a hierarchy, different type of people taking up different positions based on their significance to the society they belong. A lot of activities we do try to leave a signal to the society, like buying a costly car or house. This helps establishing the status which helps in our survival . This book I am writing is also some sort of signaling to the people around me I am smart enough to observe things and write a book. This helps me establish a status quo in my society.

To explain it better, I will take the example of crocodile since we have a complex social structure. Crocodiles have hierarchy based on their physical size and strength.

The leader gets to eat the hunt first followed by the next crocodile in the layer. This top priority gives the leader better chances of survival while the last one in the hierarchy has the risk of dying out of starvation.

RELIGION

Religion came into existence because of individuals with strong values except religions like Hinduism which does not have a single person as the creator. Buddha believed life is suffering, and we should attain insight into deep nature of life. Nirvana seems to be the final goal.

Religions provide a common template for what is good and bad.

Early form of religions were headed by the king who would act as the spiritual leader. He had the authority to collect taxes from his people. Religions emerged as a means of maintaining peace between unrelated individuals. People of same religions have similar culture and values.

NEED FOR ACCEPTANCE

Having settled as a society, people depended on each other for the day to day living. If you don't follow the norms, you are in the risk of being kicked out which might affect the survival and reproduction. Remember those two are our primary instincts.

Going to church, temple or any valued place in your culture gives the opportunity to be part of the society which increases our sense of belonging and security. Consider you do something that is not acceptable in your society. What will happen? You will lose your reputation which would lower your social status. A lot of attention-seeking activities are actually born out of the need for acceptance.