

***Like Hamlet Discussing Shakespeare:
Our Limits Of Understanding Reality***

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Introduction

This paper is a reflection on the nature of reality, and how much we can understand it. If you are interested in understanding reality, hopefully this paper will show you something quite interesting about it.

We now know enough about the workings of the mind and the physical world, that we can explain our bodies, minds, behaviour and thoughts as a regular result of the natural world.

With self-introspection and science, we can see that we are not autonomous actors, but driven characters; we are not the programmers of our actions - but the program itself; we are not the designers - but the design.

Any meaning or understanding we attempt to glean from our world, is limited within the confines of our design, and derived from whatever forces control us: A character cannot hope to understand its author, nor the medium on which it appears.

Anything beyond our design will forever be so far out of reach, it would be like Hamlet trying to understand Shakespeare. Any and every conclusion we do reach about values or importance in this world, is a one reached with our limited faculties, commanding our faulty, misguided attention, driven by an intuition about importance which is ultimately explainable and arbitrary.

All we can ever hope to understand, is how little we understand.

Good luck.

1. First Step to True Reflection: Realizing the Illusion of Free Will

Homo sapiens does not have “free will”; our will is not free from the laws of physics.

Humans are not actually “autonomous agents”, and the common illusion that we can ‘control’ our thoughts or actions is just that - an illusion. We cannot control our own thoughts, and cannot control any physical actions which might or might not arise from those thoughts, just like we cannot control our heart, kidneys, or skin.

*Our physical actions - such as moving our finger, an arm or a leg - are controlled by electrical impulses originating in the brain, as electrical signals travel from the brain down our nerves and trigger motor activity. We know as a biological fact that physical motor actions we perceive as “conscious” decisions originate from “thoughts” (electrical currents) in the mind, some of which we are aware of, and others that we are not. Where do these thoughts in the mind come from? What **are** thoughts?*

We have a plethora of scientific evidence to overwhelmingly suggest that the thoughts arising in our consciousness are not under “our control” in any meaningful sense. Every thought stems from either outside stimuli through our senses or from previous thoughts, themselves also arising without our control. We cannot ‘choose’ what to think - how would we choose to think about making that choice in the first place? How can one choose what to choose?

A wide array of scientific experiments hammer home this concept: free will is at best an illusion, and we do not control our own thoughts in the way that we commonly pretend we do.

*With proper thought experiments and introspection, even the illusion of free will disappears: Do you often find yourself ‘suddenly’ thinking about a subject? Do thoughts sometimes just pop into your mind? You must have noticed you have thoughts occurring to you without any control or conscious choice. Thoughts ‘occur’ without our control, and we also cannot control which thoughts do occur. Consider pleasant thoughts you occasionally experience - about yourself, or anything else. Do you wish you had these thoughts more often? Why **don’t** you have them more often? The answer is obvious - in both the short and long run, we simply do not control what thoughts occur to us. Thoughts are a result of internal and external processes that again, are outside of our control.*

This is a deeply profound realization. Many modern, educated people already accept this as an obvious scientific fact, but we live our lives pretending otherwise. Perhaps you, the reader, also accept this fact, but shrug it off as nothing more than an interesting observation: ok, perhaps we do not have free will, what does it matter?

Focusing on this aspect and digging deeper into it lets one unravel much of life and reality. Like seeing a hidden image within a picture, focusing on “the absence of free will” is a gateway

realization and perspective, through which one can see layers of reality in a way that once seen, the world appears quite different.

If we are not the actors but merely characters - who writes the script, and what is our character's motivation?

2. Actions Still 'Matter'

If we don't control our thoughts - why do our actions matter?

This is a common mistake: once free will is accepted as an illusion, people often feel unhappy, reflecting that their 'lack of control' makes their choices meaningless, and they should live a nihilistic life or just stay in bed. 'Why choose at all?', some might ask. If we do not have free will, why does anything matter? Why choose anything at all?

The first myth to dispel is that you can "avoid choosing". You cannot 'choose not to choose', since itself is a choice. You cannot 'not play the game': you are in this world, you are thinking thoughts and taking actions. Staying in bed all day is a choice and an action; living a nihilistic life is also a choice and action. Even accepting that you are not the originator of your own thoughts, and that you do not ultimately "control" your choices, you have no options other than to make your choices. And even if your thoughts and choices are products of external influences - they are still important.

*Even without free will, your choices still make a difference, and this is easy to see: your choices affect and change things in the world. Your choices change things around you, regardless of whether you are autonomously in charge of them or not. They affect both others and yourself. The senses, emotions and experiences are just as real, regardless of the freeness of the will causing them. If you enjoy a delicious sandwich, a good movie, chocolate or sex - you **enjoy** them, even if you do not have free will. If you help a stranger or make a child smile - they are now happy, and this is unrelated to the causes behind your thoughts, that triggered your actions.*

Anything you care about, can and will be affected by your choices and actions. Your emotions are still real, even if you cannot control them. Other people's emotions are still real as well. The world can be made better. Being kind to yourself and to those you care about, doing things that bring about change in the world, good food, entertainment and health, children and animals - it's still there. Happiness is still important, and still matters.

We still react to input. Our actions today will affect both ourselves and others; it is true that we cannot control our actions, but they do make a change in this world. Whatever things matter to you are affected just the same, whether you 'control' your thoughts or not.

It is worthwhile, however, to focus on what truly drives us, our thoughts and decisions. Rather than mystical concepts of free will or divine guidance, we have enough scientific understanding of the workings of nature to paint a good picture of exactly drives human thoughts and behaviour.

3. We Are Always Distracted

We are always distracted.

*Always “lost in thought” - either of things far away (our future career, relationships or health) - or nearby (a movie, a meal or conversation). Our attention is always “captured” by something. We are always **thinking thoughts**.*

*All of our life is often subjectively felt as a string of thoughts. Many of us experience this as a **stream of consciousness**, almost words being spoken inside our head. Others experience thoughts differently, through images or senses. But all of us experience these thoughts: all of us **think**.*

*Like other activities, we are sometimes more and sometimes less aware that we are doing it: Consider, what are you sitting or standing on right now? Whatever it is, you likely were not **noticing** it until a moment ago. You could physically sense it, but you were not actively observing it.*

*Some might say being enlightened is being **aware** that **you are thinking**. It is the **active action** of noticing that you are thinking and **noticing** your thoughts instead of **thinking** them.*

*It is exceedingly hard to do it for more than a moment or two. If you are reading this sentence, then you’re not doing it. If you’re reading any sentence, or paying attention to any thing around you or any thought in your head, you are not doing it. Basically - if you are doing literally anything **else** with your mind, then you are not doing it. You spend most of your day distracted, not noticing your thoughts. You are **thinking** thoughts, but not **noticing the thoughts themselves**.*

*Try **noticing** your own thoughts. Pause reading this sentence and do not concentrate on anything around you, or anything in your life. Do not notice the sounds and colors around you, do not pay attention to them either. You are only paying attention to the things inside your head. Do not think your thoughts - notice your thoughts.*

When you try to do this, you will have some thoughts appear in your attention - you suddenly have a thought about your work or friends, your current surroundings, or the activity itself.

Ignore those thoughts. Do not think about ignoring them; just really, do not notice them anymore: the same way you did not notice the ceiling above you until you read this sentence: Put them completely out of your mind and stop thinking them or about them.

Don’t pay attention to the thoughts’ contents, but see the thoughts themselves.

Try to not think of anything. When you notice you are thinking of something, notice that thought itself. What was it? What is a “thought”?

4. Humans: Genes & Social Memes

*Homo sapiens - humans - are made up of biological material, which can be described as composed of **genes**, little parts of biological makeup. These genes constitute much of our biology, which accounts for much of our physical make up: our genetic makeup determines much of our height, complexion, bone structure, and in some cases our diseases. As we learn more about genes, we believe genes control behavioural patterns as well, such as aggression, generosity, and many others.*

Importantly, genes are hereditary: generally, white people will have white kids, tall people will have children who grow up to be tall, and people with specific genetic diseases have a good chance of passing these on to their offspring as well.

*Some genes are better for survival and reproduction than others. Over many generations, groups with genes that are better for survival and reproduction will - by definition - survive and reproduce more, and we will see more instances of these genes 'in the wild'. Notably, the process of reproduction sometimes causes random mutations in genes, which result in new phenotypes. If these phenotypes are beneficial to survival and reproduction, we will expect them these new, mutated genes to continue and flourish. This entire process is what we call **evolution**.*

Obviously, "good" genes are ones that help the host survive and reproduce - this is so because by definition, genes that help the host survive and reproduce, will pass on to its offspring and thus survive and reproduce themselves. This is not a parasitic relationship, but rather a perspective of a human as a collection of proteins and cells, which are acting in their own self-interest - not intelligently, but just automatically.

*It is important to note that from the gene's perspective, the host animal - the human - is not of ultimate importance. The gene's "job" is not directly to help the human survive and reproduce; the gene is making sure **it** survives and reproduces. Having the carrier host survive and ultimately reproduce is one good way of doing this, but it is not the only way. From an evolutionary perspective it is reasonable for a parent to help its children even at cost to itself; it is a good way of passing on the genes. Thus, genes that make humans make sacrifices for their children, will flourish themselves, since more carriers with these genes will survive and reproduce. We notice that similar to groups of humans, the success of the group sometimes requires the sacrifice of individuals.*

Genes will likewise also encourage humans to help other people with the same genes, and indeed we are genetically predisposed to look after our brothers and sisters, their offspring, and any extended family as well - it is in the gene's interest, after all, that the carrier helps ensure the gene's propagation. And indeed, the closer the genetic and tribal distance between two humans, the more we would expect displays of empathy and sacrifice between those humans.

Or in short: we help those who are close to us, since this is what makes sense for the genes. (We will discuss helping humans with genes distant from our own in just a bit.)

The most important takeaway is to remember that our biology determines much of our behaviour, and our biology is comprised of those biological factors - genes - which were best fit for survival, and thus survived and flourished.

We are built of the genes that were best for survival - and they are what determine a large part of our behaviour.

*A person is not just their genetic make-up, of course: we know that the various influences throughout a person's life - especially, but not only, during childhood - determines who they "are" as adults. Education, psychological support, and other societal influences ranging from a mother's hug to the average temperature outside to a neighborhood science fair, all collectively interact with a human's biology in order to form what a person is. The role of each component - genes and society - is debated and researched, in what is known as the **nature vs nurture** debate.*

Similarly to how genes affect our biology, we have social conventions and patterns which dictate our society. These patterns 'codify' themselves as what we accept as socially 'normal', and manifest as patterns in individuals which are repeated. These patterns include things like a 'family' or 'community', but also 'reciprocity', 'trust', and any other behaviour. We see various types of genes, and various types of social behaviour patterns.

Similar to genes, some social patterns are better, and some are worse, for survival and reproduction of the humans that have them. They also pass on from one human to another, from parents to children and also between humans exchanging ideas. Similarly to genes, the social patterns best fit for survival and flourishing, will (by definition) survive and flourish.

*Examples of successful social patterns might include 'family' and 'community' - these concepts are very helpful for the survival of the human carrying them, and thus the humans carrying them survive, and pass on these ideas to their friends and family. And thus the idea **itself** survives and flourishes. Every behavioural concept - from monogamy to language, from accepting homosexuality to Dunbar's number - can be seen through this lense. Ideas are created, and those that help us survive - survive better. Many of the thought patterns we have about how to behave in various circumstances - indeed, many of our behavioural patterns themselves - are the manifestations of these ideas and concepts.*

It is worth noting that similar to genes - the "survival and flourishing" of ideas does not depend directly on the host surviving and flourishing, although it helps. Ideas can survive and spread regardless of a specific individual. Those ideas that are better at surviving and spreading, will - by definition - survive and spread better. (Dawkins has called ideas following this pattern

'memes', the origin for the widespread use of this term in the early 21st century. Dawkins' book "The Selfish Gene" is an authoritative book detailing the concept expressed here.)

These genes and social ideas coalesce into each individual human: our bodies and minds are made of the biologic makeup we inherited (genes), the physical influences throughout our lives, and the social influences which become encoded in various degrees in our brains.

Everything we do is a manifestation of the totality of this set of influences. We are our genes and social influences, and they are us.

The physical genes modify our behaviour and bodies. The genes that do it in a way that survives and flourishes - survive and flourish.

Social ideas modify our behaviours - the social ideas that do it in a way that survives and flourishes - survive and flourish.

All of human behaviour can be explained through this prism. This is who we are: carriers of biological genes and social norms, vehicles of thoughts. We are the car, not the driver. The drivers are the forces of nature and atoms around us, which can be described at the biological level (genes) or social level (social constructs). Just like humans, these drivers are imperfect at their task of surviving and spreading, but the best ones survive, grow, and reproduce. Human behaviour is best and fully explained by these driving forces which underlie our essence. A car only does what its parts do; a sea is nothing but molecules of water, and we are no different.

To quote Sam Harris on this: you are not controlling the storm, and you are not lost in it. You are the storm.

5. Genes & Social Memes: Layers of Abstraction

We previously discussed genes and social behavioural patterns, and how they influence human behaviour. It is important to note that these separate concepts are not actually physically separate: they both describe the same reality, and only differ at the layer of abstraction at which they work.

Our physical world is comprised of a single layer of interconnected particles. Atoms and molecules obeying the laws of physics, interacting with each other. When two hydrogen atoms (H) are fused an oxygen atom (O), the resultant molecule is a water molecule (H₂O).

*It is cumbersome to describe the world this way, however. When humans discuss practical concepts, it is better to use **abstractions**. Once we have 'H₂O', we can simply discuss water - there is no benefit in always discussing the underlying physical atoms. We can discuss the properties of water - it boils at 100 degrees Celsius and freezes at 0 degrees Celsius, for example. The water is still composed of the underlying atoms and the laws of physics, of course - it's just more efficient for us to describe the properties of the larger construct.*

We use this pattern constantly when describing reality - higher layers of abstraction make it easier to describe more complex phenomena.

When we discuss a car ride from LA to NY, we do not describe each individual wheel turning, or how the engine works, although clearly they are part of the car, and part of the car ride itself. There is no car ride without the wheels and engine (and all the other parts of the car), and they are what enables the car to drive as well as comprise the car itself. We discuss the car, but we remember the 'car' is just an abstraction for its parts, which are ultimately determined by physics.

We use abstractions not just to describe complex objects (as an abstraction for the ultimately underlying atoms beneath it), but also to describe complex interactions: when we talk about a 'social influence', this social-level phenomena is an abstraction of physical processes, which in turn are ultimately composed of atoms.

Any social level phenomenon can be explained by and deconstructed into its physical parts, ultimately down to atoms. Trends of atoms create trends in biology, which create trends in sociology and psychology.

In the end, our world is a giant collection of physical particles, interacting with each other. When we discuss the world, it is impossible to discuss every single particle, so we lump particles together and describe them as groups, even when this abstraction is imperfect. We do the same for higher-order constructs such as social phenomena; for ease of discussion.

Within this “sea of particles”, some patterns occur - similarly to how patterns will form in any large chaotic system. Some of these patterns have the peculiar attribute of self-preserving or self-multiplying; their very nature creates more of themselves. One such example is collection of proteins which attracts molecules around it and transforms them into the same kind of protein. A cascading snow avalanche or wood fire is another example, as each is a pattern that can create more of itself. Each such ‘pattern’ can manifest itself at different “levels” of the physical world and is limited to the resources around it; the patterns more fit to survive are the ones that stick around, and of which we see more.

It seems self-evident that this is the basis behind the theory of biological evolution, the explanation behind social evolution, and the ultimate cause of even our thoughts and decisions. Self-reinforcing and spreading patterns of proteins in nature turned into self-preserving genes, which turned into self-preserving monkeys, which turned into self-preserving societies.

*When we discuss human behaviour and patterns at the level of the society, the individual, the brain or the mind - we are simply applying an abstract label to high-level groups of physical particles, which ultimately obey the same simple single self-evident physical principle: patterns that create self-preservation and self-replication do indeed preserve and replicate themselves, and that is basis of all that there is in nature, both around us and inside us. We are part of these patterns; we **are** a pattern.*

6. Genes and Memes 3: The Special Case of Cooperation

Homo sapiens is largely driven by a combination of biological factors - genes - and social behavioural patterns. These genes and concepts facilitate behaviour in individuals which helps them survive and reproduce on the personal level.

Genes give you muscles, breathing, hunting and other survival instincts. Social concepts give us behaviours ranging from basic love (an inclination to be close to someone who will help us survive) and fear (stay away from someone or thing which hurts our chances to survive) to complex concepts such as money, technical skills, and strategic planning.

*Both human genes and social factors have a specific factor which is worth focusing on - the tendency to **cooperate** and care for the **community**.*

Recall that genes are not 'selfish' at the level of the human carrier, but at the level of the gene itself. This is not an evil plan - genes are not consciously "using" humans - but rather that genes which work at this level - genes that cooperate - succeed better. This is easy to understand because humans are exactly the same. At the individual level, any specific human is generally very weak and would struggle to survive and flourish in this world. It is only through massive cooperation that we succeed, flourish, and control the world. And so the groups in which the individuals cooperate and work for the greater good, flourish. This is true for genes as well, and so over time the genes that cooperate are the ones that survive and reproduce the most. The result is a set of genes themselves that are predisposed to cooperate.

We are our genes, and our genes push us to persevere ourselves as a group. Cooperation and helping the community is literally our nature.

Of course, this is a general tendency, not an absolute commandment. Any individual human does not donate 100% of their money, nor do they help everyone else, all the time. Our genes strike a balance between human-level selfishness and altruism, a benefit which is best for the community (of humans and genes) at large.

Pushed by genes, more complex levels of behaviour have emerged, best described as social influences. At the social level, we also have a strong push for cooperation. The first and most self-preserving such push is to push others in the group to be cooperative as well. In other words - in any group, we have a biological/social tendency to make sure both we and others work for the benefit of all members of the group.

*We punish - legally and socially - members who deviate from the benefit of the group. This is a **core explanation** for many behaviours and activities which do not benefit us personally. We abhor selfish people because of this, and this is what forms the backbone of most moral codes. It is important to note that this push for cooperation and care for the community is not because of a benevolent designer or any ethical beauty; it is simply due to the power of reciprocal*

cooperation. Groups with tendencies to cooperate survive better, and thus the tendency itself survives. This is true for proteins, genes, mammals and ideas.

Following this, we see our behaviours can be generally split into two categories - behaviours that are to be self-beneficial (driven by forces that help us survive and flourish) and behaviours that are to be group-beneficial (driven by forces that help promote the group). These types of behaviours survive and flourish, and thus are passed on to the next generation, through biological reproduction and conceptual education.

We ourselves are the living embodiment of a current end of eons of self-preserving patterns, manifesting themselves through human genes and social behaviour patterns, which are in turn a manifestation of self-preserving patterns of atoms in space.

In simpler words: atoms in space have some patterns. Some of these patterns reinforce themselves, and create more of themselves. Not all patterns in nature are so, but some are: imagine a snow avalanche which itself creates more snow avalanches. Some of these patterns take the form of biological genes and social patterns, which create more of themselves, by surviving through us as hosts. We are the hosts to the genes and social behaviours, which reproduce through us, and determine our behaviours and thoughts.

Predominantly, these patterns dictate self-preservation and reproduction of the genes and behaviours themselves, rather than the host themselves. This is why all of our society holds a high value on cooperation, safety, health, sex, children, and similar topics: all of these are causes which help self-preserve our genes and ideas.

Notably, concepts such as a quality of life and happiness do not often receive attention: from an evolutionary point of view, “quality of life” and “happiness” are only useful insofar as they help survival and reproduction.

7. Homo Sapiens: Explaining Social Behaviour

Knowing that Homo Sapiens behaviour is driven by genetic and social forces, let us see how we can apply this to better understand human behaviour.

Example 1: Children and sex

The importance of sex in our society almost goes without saying. Clearly a set of genes/society that places an importance on sex and raising children will outperform and out-survive a set of genes/society that does not hold this concept as important. Over the years, we have thus quite reasonably honed both biological and social obsessions over children and procreating. We are literally wired to care about this more than almost anything.

Another example could be the ethos of saving “women and children first”: Humans often prioritize the life of women and children over men’s. Adult male deaths are considered more acceptable than women’s. From a genetic, evolutionary point of view this makes sense: A gene needs less men than women to continue and propagate itself. Children are a slightly different case, and rely on our extremely strong instincts to create and raise children; a society which does not prioritize helping children, will not have its children survive. Thus we are hard-wired to give special treatment to children.

Example 2: Our historic rise of sensitivity to others

As our society gradually became less crisis-prone and general rates of survival rose, we could afford to extend more protection to the traditionally ‘weaker’ members of society. Historically, this has gradually covered less powerful males, males from other races, females, and with time even more marginalized groups such as homosexuals, religious minorities, and mentally challenged individuals.

The basis of this gradual empathy is not a divine morality or ‘good human nature’; it is simple selfishness. Human genes do not know good or bad, and the resultant developing social structures are foreign to such concepts as well. All they know is survival. What we see is that over time, we learn that cooperation - up to including traditionally ‘weaker’ members - is simply beneficial to the group.

While during the stone age pure physical strength might be the sole reason to respect someone (for fear of retribution), Homo Sapiens quickly learned that forming a group is very beneficial for survival. At least, the humans with the appropriate genes learned this. The rest perished.

And so we learned not to harm people “from our group”. Within our group, at first we might not see any survival value in helping the weaker members, but with time, strategy, economy and technology, we learn that physical strength is not as important, and many members of a group can contribute in various ways to the group effort. Once again, primarily the humans and groups with the right appropriate genes and social constructs would learn this; they would go on to have stronger economies, societies and armies - and their ideas and genes would go on to survive

and flourish. This trend would continue up to the point where it would be no longer beneficial to extend sympathy.

Indeed, one might wonder if the remainders of sympathy that manifest themselves today in areas which are not beneficial to the group have a much harder time of finding traction: this is why despite the human rights movement being so successful to the rights of racial minorities, women and gays, the movements relating to animal rights have not been so. Cooperating with women and gay people is beneficial; cooperation with animals is not necessary.

It is worth pointing out that the exact dynamics of how selfish genes and self-preserving social constructs determine social developments is not self-determinant. History and our current reality are the end result of many genetic and social factors (as well as external natural phenomena).

Our goal is not to outline history, but to focus on the factors behind human behaviour: even today, one expresses sensitivity as far as one finds it beneficial to express sensitivity to a recipient. That extent is determined by the logical calculation of the specific event as well as whatever brain patterns are encoded into us by that point. This is not a conscious, rational calculation, but an automatic process.

Example 3: Criticizing “Shallowness” in others choices of a mate

Why do we criticize “skin-deep” men and “gold-digging” women?

*If Bob cares only about a woman’s looks and not her personality, we might criticize Bob for being ‘shallow’. Why do we do that? What is the force that makes us have criticism for this? One answer is that Bob is displaying **selfishness**. A “good”-looking woman, from an evolutionary point of view, means one good for carrying Bob’s offspring. This would help Bob’s genes, but unhelpful for the rest of the society. If Bob prefers a kind, generous woman - this woman is more likely to help the rest of society, as are her offspring. We are predisposed to feelings and actions that would dissuade Bob of being selfish in this way; we would rather Bob did something that helped the whole group, not just himself. Our feelings are not rational, they are driven by our own genes, which include a strong disposition against any member of the group that displays selfish behaviour such as this. For if we did not beat down selfish behaviour, the group might dissolve (and thus groups without this disposition, would not survive).*

We can view the same for Alice choosing a husband based on his personal, evolutionarily-beneficial attributes such as power or money, over his personality. We as a group gain nothing from Alice giving children to a powerful male; we do gain from Alice giving children to a helpful, kind male. Even a smart male; anyone whose children’s genes are likely to help the group, rather than themselves. And so we ourselves are genetically predisposed to encourage Alice to value “what is in a man’s heart” more than his wallet.

(We might also envy Bob and Alice - the genetic explanation behind that is obvious. We are programmed to feel what we describe as 'envy' in such situations, as this is a very beneficial evolutionary mechanism at the selfish individual level.)

For both of the cases above, the realities are more complicated and contain many social and genetic drives and considerations - both on Bob and Alice's side, as well as a myriad of other considerations. But all of these considerations share this in common: they are all driven by physical forces, manifesting themselves biologically and psychologically in genes, and socially in behaviours, at both the individual and societal level. The forces of society and homo sapiens apes are like the forces of the weather - hard to predict, but ultimately a part of physics.

8. Homo Sapiens: Explaining Psychological Behaviour

We have discussed how genes translate into biological disposition of behaviour, which often manifests itself in societal trends. Let us examine two examples of how psychological tendencies are themselves too exactly a product of the physical forces.

1. Women want to be sexually attractive and fertile

When a girl hits puberty, her body starts sending her signals encouraging her to have sex and procreate. This manifests itself in sexual thoughts that gradually start appearing in her mind, as well as non-mental physical bodily processes. Our society broadcasts a non-ending stream of messages to which girls are exposed, encouraging the girl to understand how important it is to match the female ideals. Pavlov's dog learned to connect a bell's ring with food, and little girls' brains learn to connect with the female ideals. Partially from the womb (nature) and partially from society (nurture), the little girl's mind learns to think about female ideals and internalize their importance. From this point, it is inevitable that the girl will grow into a woman who will emphasize the importance of topics relating to these primal ideals. And indeed we see a well-known general trend of women caring about being pretty, skinny, sexy; about motherhood, care-taking, home-making, and so on.

This is not a commentary on the feminist movement or gender roles, but an observation on the inevitability of people's thoughts. A woman's thoughts are the result of the brain and body she was born with, and the sum of all social and external influences throughout her life. A woman cannot think "freely" from the influences of her genes and society - she is the sum of these influences, of her genes and society.

2. Men want to be powerful

When a boy hits puberty, his body starts sending him signals encouraging him to have sex and procreate. This manifests itself in sexual thoughts that gradually start appearing in his mind, as well as non-mental physical bodily processes. Our society broadcasts a non-ending stream of messages to which boys are exposed, encouraging the boy to understand how important it is to match the male ideals. Pavlov's dog learned to connect a the ring of a bell with an upcoming meal, and little boys' brains learn to connect with the male ideals. Partially from the womb (nature) and partially from society (nurture), the little boy's mind learns to think about male ideals and internalize their importance. From this point, it is inevitable that the boy will grow into a man who will emphasize the importance of topics relating to these primal ideals. And indeed we see a general trend of men caring about being strong, smart, successful, important; about leadership, power, money, and so on.

This is not a commentary on the feminist movement or gender roles, but an observation on the inevitability of people's thoughts. A man's thoughts are the result of the brain and body he was born with, and the sum of all social and external influences throughout his life. A man cannot

think “freely” from the influences of his genes and society - he **is** the result of his genes and society.

In both the case of the boy and the girl, the existing society around them (itself a result of similar processes earlier) created stimuli that shaped the child’s mind in a certain way. This shapes the exact mind - many men and women literally cannot stop having these thoughts.

*The above patterns carry over to **all** thoughts and thought patterns, not just gender roles, which are simply a famous example that is often easy to relate to. Our thought patterns are the result of the list of stimuli over our life, especially during our early years. Our mind starts out as a set of electric connections, which interact with themselves over time, and receive other electric connections from our senses, which modify the existing connections. It is a chaotic, complex system, hard to diagnose and understand completely. Our mind is, however, ultimately a part of nature, driven like a twig by a stream or a character by a movie script. Our thoughts are determined by prior thoughts or external events, and we have no more control over them than the twig has over its course, or the movie character over its actions.*

9. Values Come From Thoughts

All of our **values** come from uncontrolled thoughts.

It should be well-understood that our thoughts - both conscious and unconscious - are not under our control. Each thought is the result of interaction between previous thoughts and outside stimuli, none of which is anything we can control. This is true for thoughts of all kinds - small "thought" sensations such as hunger or pain, tactical "thought" calculations such as how to walk or approach a cognitive task, and all the way up to our opinions about other people, society, and life.

*We know **why** humans are repulsed by fecal matter and disease and why we are attracted to sugar and bread: because of our evolutionary mechanisms, both biological and social - or in short, because of our genes and our environment. This is the source of our opinion about what foods we like (and when), which TV shows we like, and our religious and political preferences. A combination of biological factors and social factors all coalesce into whatever your mind is: a process of thoughts and actions pushed forward by all that came before it, and pushing forward all that comes after it.*

Even our very core moral precepts - whatever we consider to be the underlying principles by which everything else is derived - are determined by this same process.

A person who believes that serving their God is the ultimate purpose in life, likely thinks so because they were taught this as a child; the reason they were so taught is because societies which believed in religion flourished, in part due to the mass cooperation that religion enables. Upon deeper inspection, the said person might see that each society has invented its own God, and thus decide that there is no God.

*Perhaps the said person will now choose a different moral code - many atheists believe one of, if not the most important concept to focus on, is reducing human suffering. Where does **that** thought come from, though?*

Just like any other thought, it comes from a combination of society's focus on humans (since similarly to religion, societies that focus on the well-being of humans flourish) and biological evolutionary mechanisms which have induced this kind of thought (as we explored in previous chapters - cooperative thoughts are a self-inducing pattern). And indeed a common core principle of liberal atheists is suffering and happiness - as a society and as individual biological genetic creatures, we have a tendency to view happiness in its various forms as good, and suffering and pain (in ourselves and in others) as 'bad'. One core popular moral 'ground truth' could be to make the people we care about happy and not suffer.

The evolutionary nature of this attitude is seen as part of the claim that this is self-evident truth - if anything is important, it's increasing happiness and reducing suffering. But this tendency does

not **prove** that suffering is bad; it does not prove anything about suffering -- it is simply hard-wired into us, "suffering is bad". Our belief that suffering should be stopped does not prove anything about 'suffering', the same way a belief that God should be worshipped does not prove anything about God. These are both beliefs created by man's genes and culture.

The inevitable next step is true at the individual level: anything you think is important, you think because you were 'taught' by society/genes to think is important. **It does not mean it is actually important.** You could have been born with a different set of genes or in a different society, **and you would have thought differently.**

Indeed, contrast your values, your thoughts about "what matters" with a group you strongly disagree with, and consider how **they** feel about you and your values. They probably think you are crazy, just like you think they are crazy. But neither one of you had any choice about our thoughts or values.

Your thoughts about their current values (that you don't share) are what you would have thought about your own values if you had been in their shoes.

One might continue down this chain and try to arrive at some bedrock; some core basic principles from which the other principles could be derived. If we do not take God or King or Country or Human Happiness or anything similar to be an absolute core value - since values such as these are clearly the product of our thoughts, which themselves are the product of our genes and society - then what **do** we base our behaviour upon? In practice, what we **actually** do is simply obey the laws of physics (and biology and society), reacting to cause and effect. Our behaviour cannot be geared towards "truth"; our behaviour is just a part of nature.

One might be tempted to ask questions looking for a deeper meaning - a deeper way to evaluate various actions. I struggle to see such a way, beyond dissecting the the causes leading up to an action. We can attempt to analyze the outcome of a potential action, but making judgements on the importance of different outcomes can again be traced back to our own implicit assumptions about what is important and what is not, and that itself comes from our genes and society "telling us" what is important. Even ignoring societal influences, you are constrained to your biological underpinnings, from which all 'meaning' would ultimately be derived. All of your possible interaction with existence - including what you value as 'good' or 'bad' - is limited to this 'box' of limits our biology puts us in , and we cannot possibly hope to understand what is outside of it.

The same way an ant cannot pass judgement on Shakespeare, a calculator cannot feel pain and a sock does not play the Beatles, so does the human mind not think anything outside of what it is capable (and predetermined) of thinking, and cannot value anything outside of what is was built to value.

*Looking upon our core values this way, we can acknowledge that values are a construct of our circumstances. We choose our “values” - whatever we **value** - without any real ‘choice’. There is no absolute moral bedrock, and any claim about such bedrock can be reduced back to its biological and physical causes, since any claim about reality that **you** make is a result of your thoughts, which can be traced back to your genes and upbringing. There is no truth you can know; just the thoughts inside your mind.*

*There is no way to escape this meta-philosophical conclusion - whatever you think about life, whatever you think **about** thoughts about life - it is all the sum of your genes and environment. We cannot arrive at any conclusion about life with certainty, for both the range of our possible conclusions as well as the specific conclusions we will reach will be limited by and derived from our limited, deterministic faculties of knowledge. Hamlet will never understand Shakespeare. We are Hamlet to the Shakespearean reality, and the only thing we can know for certain is how little it is we actually know.*

10. Nothing Matters - Not Even Our Feelings

We discussed earlier how our actions still change things in the world - despite the fact that we are ultimately not “freely in control”. Whatever causes are important to you are affected by your actions, and in this sense one can see their actions matter. For example: one might care about their family, the United States, or a particular kitten. And indeed, one’s actions can affect one’s family, the United States, or that particular kitten - and in this sense their actions clearly matter: our actions and choices affect the world around us, and affect the things we care about.

But why do the things we care about matter? Indeed, we might ask - do they really matter at all?

As we have discussed and seen, we can attribute all of our thoughts to elements outside our control. This includes all of our values; anything we care about; everything we feel. Whatever we “value” as important, we do so because of the thoughts inside our head, which we do not control.

*Our actions and choices can change the world - but why is change in the world important? Is anything **actually** important?*

If one believes in pleasing God, one might note that this belief itself is a result of one’s upbringing and genes. There is likely no God, and the belief in God itself is pointless.

If one believes in advancing their own country, sports club, or family - one might note that this belief itself is, as well, simply a result of genes and education. There is no intrinsic, absolute importance to any of the above, and this too, is easy to see.

Alright, the skeptic might counter - these are all means to an end. The ultimate value lies in human happiness or “meaning”, and our goal is to achieve this meaning, increase happiness and reduce sadness.

The explanation likely behind our belief in this line of thought - the ‘importance’ of human feelings or meaning - should be clear by this point: the belief that human happiness is important is itself a thought construct, a result of evolution and education. Indeed, it is a very modern one at that: previous generations of men have put the glory of God as a prime directive, not human happiness. Later societies proclaimed the King to be important, not the happiness of the general population. That itself was followed by the importance of the Country, or the Race.

*It is only during the late 20th century that we as a society have started to focus on the general **happiness of humanity** as a worthwhile goal, indeed as something worth caring about as an ultimate goal. The causes of this trend can be explained by the industrial revolution and the rising importance of the masses, but more important is the fact that this, too, is likely to be a fashion, rather than a final destination, and in any case adequately explained by the laws of physics and biological and social evolution.*

*To stress, the reason we think human happiness is important is because of factors that have made us feel this way - not because it actually **is** innately important. We can say human well-being is important because we have axiomatically decided so, but that is a very weak claim, since we have good reason to believe we know the reasons that have made us think so. Humans have similarly in the past decided that God, the King, the Country are important - we do not think this way anymore, and we know to explain what led us to believe so. Our axioms are not 'correct' in any meaningful sense; at best we can say that they are what we happen to believe right now.*

*An ardent skeptic might hold strong: everything around me is moot, the skeptic would say - at some base level, the only important thing is **me** and **my happiness**. My thoughts **matter** and my feelings **matter** and my happiness **matters**. The problem with this is not the selfishness, but the self-definition. Your feelings about yourself - indeed the very importance we assign to our own feelings of pain or pleasure - are solely an evolutionary mechanism. We assign importance to our feelings because evolution has made us do so. There is nothing innately "important" about one's feelings, and nothing that matters about one's feelings of pain or pleasure. Who would it "matter" to? Clearly only the individual itself, and at this point it is solely circular logic that would assign those feelings importance.*

Our feelings do not "matter" in any sense other than that we think they matter - and we think they matter because physics has made us think so. In the past, physics (and society) has made us care about God; clearly this does not validate the "importance" of God. In the past, physics has made us care about the Country or the Race. None of these trends validate the importance of the construct we were led to believe in. Evolution and physics similarly make us "care" about our own feelings, for the obvious survival benefit it confers: creatures that "care" about their feelings survive better than creatures that do not. This is simply a manifestation of a complex physical interaction between groups of atoms.

We are but a whirlwind of astoundingly complex atoms, floating through space, reinforcing our own patterns, including each and every of our thoughts and feelings. There is nothing to attach importance to, for even the act of attaching importance is our own pattern of atoms in action, including anything we think about ourselves.

*Our pain, while clearly subjectively "bad" for us, is not "objectively" good or bad. Our laughter, while subjectively "good", does not carry any real "importance". Important for whom? Clearly it is important for ourselves, but "bad things are bad" is meaningless. It is clear we **act** in a way which mostly seeks to minimize certain results and maximize others, but there is no "value" to attach to any of these actions or results; some of them are actions which humans try to encourage, others avoid. A rock similarly rolls down a hill, but this is not good or bad - it just **is**.*

We are not important, our thoughts and feelings are not special, we are just groups of atoms floating through space, obeying the laws of physics and reality. Just like the rest of the Universe,

we obey the Physical imperative: we do what physics leads us to do, for we are just part of physics, and everything else is just an inexact approximation.

Author's Notes

Thank you for reading this.

I have been asked to explain why I wrote this. The astute reader will find the answer in the text itself - as stated in the text, the answer to every question asking "why" can be adequately answered by reviewing the causes, rather than the goals. Various forces throughout my life (molecular, biological, evolutionary, psychological, social) have culminated into me writing this text, and into you, the reader, reading these words.

Attempting to describe these causes with a simple 'goal' in mind would be mistaken; it is the totality of the influences that have caused it. I have written it, because whatever made me do things, made me do it. For even if my goal was to cause some good in the world - one could investigate what made me care about good in the world. This text has hopefully showed you that many terms with which we usually describe ourselves and our world are not root causes, but themselves results.

If you are interested in understanding reality, hopefully this paper has shown you something about reality.

The text, and my worldview, have been heavily inspired by the writings of Sam Harris, Richard Dawkins, and Yuval Noah Harari, to whom I owe my interest in this field.

Any feedback is welcome at sella.rafaeli@gmail.com. If you read this, please ping me to tell me so.

Please make sure to hug your loved ones and yourself today.

- Sella Rafaeli, May 2019