

# reason and logic



Author: <u>Tio</u> Review: Ray Proofread: Ray Design: <u>Tio</u> Year: 2015

#### Summary:

If humans can use logic, they can reason out a way to make this world a better place... Or not. We will look in detail at the notions of 'reason' and 'logic' in this book, considering different cultures and points in time, 'mental' games, puzzles and illusions, and all that to try and find out if these notions make any sense at all. If humans can use logic, they can reason out a way to make this world a better place... Or not.





The world we live in is very complex, from everyday interactions with other people to new scientific discoveries, from quarks to quasars, cells to human behavior, and so on, and it is so hard for our limited brain to make sense of all this.

Science provides a way to best make sense of the world and it has been the most powerful tool we have developed so far, but science is not a fixed set of rules; science is an evolving body of knowledge that constantly questions the world and the ways we interpret it.

However, despite the rigorous and diverse methods of science to explore and understand, we are still faced today with so many contradictions in society revolving around things like climate change, religion, morality, human behavior, and so on.

Why is that? And if science has arrived at just one conclusion around each of these notions, is there a way to make those conclusions 'understandable' to all people? Why are people looking at the same facts, but in so many different, competing ways?

How can people arrive at different conclusions based on the same facts? Shouldn't there be a logic among all humans? Shouldn't people be able to reason these things out? Some people think that we are born with some kind of mechanism to 'reason', but as I will show you in this article, that idea may be far from reality, and notions such as 'reason' or 'logic' may simply be a mirage of cultures.

Real science can be both complicated and complex, and the average individual cannot readily apply its methods when dealing with everyday life. As a result, we convince ourselves that 'reason' or 'logic' are the tools of science that we can use to make sense of the world.

So, leaving science aside and only focusing on its tools (reason and logic) and the everyday life of their use. Let's start our journey as I present some stories, try to trick your mind, and even question your 'reasoning'.





I always have vivid dreams and remember them in great detail, even years later, and I have some of the craziest dreams that you can imagine. For example, I am either chased by zombies or travelling to planets that do not exist, just to name two types. I am also able to recall the hilarious 'reasoning' that occurs in my dreams.

In one dream I was in outer space (without a spacesuit or spacecraft), traveling towards a planet and I got cold. What did I do to fix that? I invented a time machine, jumped into it, got back to my apartment, grabbed a jacket, and went back again towards that planet. Well, why didn't I just invent the jacket on the spot instead of inventing a time-travel machine?

Better yet, why didn't I just say "If I have so much power, I'll just remove the feeling of cold, or the cold itself". After all, I was traveling through space...and none of that was affecting me at all, except it was a bit too cool and I needed a jacket. :)

That may have been just a dream, but it might not be much different from how we 'reason' while awake.

# **HERE'S A VERY SIMPLE PUZZLE:**

You have a basket containing ten apples. You also have ten friends, who each desires an apple. So, you give each of your friends one apple. Now all your friends have one apple each, yet there is an apple remaining in the basket.

How is that possible?

ANSWER (CLICK)

You see how simple that was? Did you 'reason' it out the same way? Does it seem 'logical' now?

It seems so, but what if the answer was: all of your ten friends have an apple, but another apple that was not one of your original ten remains in a basket somewhere in another part of the world? Or perhaps it was possible because I only mentioned ten of the eleven apples you actually started with.

We can interpret the situation in many different ways, like maybe the remaining apple is made of antimatter, this is why it 'remains', plus so many other scenarios that we can create and interpret as we want to. Each of them could be seen as 'logical' by someone.



The concept of 'logic' was borne by Aristotle, historians say, more than 2,000 years ago. However, Aristotle was very 'illogical' compared to our present day understandings in many of his theories. Can you believe that he thought that flies come from dead fish (or dead animals in general)? He deduced that because he observed that a dead fish, isolated from external factors and starting to rot, had flies coming out of it after a while. He did not realized that before he started this experiment, other flies had touched the fish and laid down eggs.

He also thought that the world was made out of only four basic elements: water, earth, fire and air. Aristotle also thought that eels spontaneously come from mud and, although he analyzed many species of animals and categorize them, he was unable to recognize what Darwin figured out, the evolution of species.

He 'reasoned' that everything that existed had always existed and will always exist.(<u>source</u>) Now consider that this was one of the most brightest, intelligent people of his time. Take for instance a theory about Earth that had circulated for thousands of years. Not too long ago, everyone thought Earth was flat, which is quite 'logical' if you think about it. We can only see an apparently flat land in front of us. Then, after numerous observations such as ship's sails disappearing last when going beyond the horizon, people started to believe that the ships must go down and Earth might be a sphere. Further influenced by mathematics and the observation of celestial bodies of the day, they started to see this idea as more 'logical', overwriting the flat Earth theory.

Following that change in perspective, hundreds of additional theories about Earth widely circulated and were accepted by many 'smart' people of the day: Earth is hollow, Earth is expanding, and so on.

One recent example of a 'logical' mindfuck :) started in 1911, when a <u>geophysicist</u> noticed something that everyone else seemed blind to: when you look at a world map, you can see how continent edges, like the American continent and Europe and Africa, fit together like a puzzle. If you were to merge them together, they would fit almost perfectly. What an astonishing discovery! He published his theory in 1912, backing it up with fossil records and rock types supporting his theory that these masses of land were once part of a single continent (<u>Pangaea</u>).

However, almost all scientists and scientific institutions at that time ridiculed this man, saying that it's impossible for Earth to be such a dynamic, moving place. After all, we don't feel it moving beneath our feet, right?! Although the man presented some scientific arguments for his theory that seemed to be 'logical', his criticizers came up with other arguments as to why he was wrong, and those also seemed 'logical'.

For instance, some scientists responded to the matching fossils found in two separated continents by insisting that at some previous point in time, there had been some kind of 'bridges' (land masses) that united these continents, and this is why we can observe the same specimen on two separated continents. Their conclusion was based on an attempt to 'reason' their strongly-held notion that continents can not possibly drift.



Although science played a definitive role in settling this dispute after many years, the 'reasoning' of both parties at that time was both correct and incorrect.

You see, while both parties presented some scientific evidence for what they were arguing for, many people could not accept such a 'crazy' idea that the Earth's surface is moving and, since this seemed to be very 'illogical' for so many of them, they resisted the idea and did not conduct further investigations. It took more than 50 years for the theory to be properly investigated, confirmed and accepted, all because it didn't make sense for some.

One question we might ask is why no one seemed to recognize what this meteorologist saw? Why had no one 'reasoned' the same idea? Well, others actually had noticed the same thing, hundreds of years before him, and he later recognized that he was inspired by some of these people. However his 'reasoning' was not entirely scientifically sound as he deduced that the 'continental drift' was due to the gravitational pull of the Moon and the Sun, a model that had no basis in science, but made sense for him.

So what influenced those before him? Who knows, but one thing is certain: these ideas do not come from thin air. They emerge from a soup of other ideas, experiences or experiments. As an example, the people before the meteorologist argued that the continental drifts were due to earthquakes or floods. They didn't know about 'gravity' to 'reason' that out; they only 'reasoned' an explanation from what they knew.(source)

SOUTH A

Fossil remains of Cynognathus, a Triassic land reptile approximately 3m long



the southern continents, show that they were once joined



Aristotle wasn't stupid, nor did he misuse 'logic', but he lived 2,000 years before Darwin and was not exposed to all that Darwin was exposed to.

Darwin was influenced by geological works conducted by other scientists at that time who determined that the Earth is millions of years old, and that 'structures' of the Earth, like mountains or certain rocks, formed over that long period of time. That made Darwin think about how small changes, over millions of years, can create very complex structures.

That, plus many other theories about fossils and the animals Darwin directly studied, helped make Darwin's 'logic' more knowledgeable.

Over the hundreds of thousands of years since humans emerged, that meteorologist, Aristotle, Darwin, and all other people with ideas have done their best, at their time, and only the 'logics' that were further proven to be more valid through careful scientific experiments, remained as facts. What we think of today as being 'logical' may be completely shattered by tomorrow's discoveries. For instance, if we drop a feather and a bowling ball from the same distance, we expect that the bowling ball will reach the ground first. But that is not true if you drop them in a vacuum(watch).

We think of ourselves as 'solid' matter, but trillions of small <u>particles</u> pass through our bodies all the time, as if we're not even there.

We even think that we 'touch' things and other people; that we make contact with them when we, say, touch their hands.

Wrong! There is no such thing as 'touch' in the sense that we are used to thinking about it. Instead, electrons in our hand are repelled by electrons in the other person's hand, and the only thing we 'feel' is the pressure this induces on our nervous system. In other words, even when holding hands, the atoms of our hand never actually touch theirs.

The more we discover about this world, the more our older 'logic' goes out of the window and new 'logic' comes into play.

Perhaps the most notorious fallacy of 'reasoning' are the many religions out there and their teachings. Many of their claims, such as the Earth being only 6,000 years old, or that there was a massive flood that covered the entire world, or that one guy was able to collect two of every species on Earth in one big wooden boat that he built to save them from the flood, are all completely inaccurate from today's scientific perspective, even ridiculous, 'illogical' or 'irrational' for even the most un-scientific minds out there.

However, there are still people who believe some of these stories, and this is one of the most important aspects of this article; to understand that we humans do not have any inbuilt mechanism within our brains to recognize what is more, or less, relevant. We have no mechanism of 'logic and reason', and can only project whatever we were or are exposed to in our culture.



This is why, no matter how many 'scientifically confirmed facts' you show to a deeply religious person, he or she may not be able to digest it in a way that you think they might.

Consider the Universe, with all of its galaxies, stars and planets. It is likely just as much a fact for you that our Universe was not made by any entity, as it is a fact for them that the Universe was made by such an entity - same facts, different 'reasoning'.

There are scientists that accept evolution and continue to produce further discoveries fully supporting this theory, but somehow also believe that the world is 6,000 years old or other disjointed notions that are completely non-factual.



Here's a story that showcases not only how some people can be blind where others see, but also how it is possible to open their eyes and help them see what they didn't understand before.

Recently in a village in Kenya, "people shit everywhere" (quoting them from the <u>documentary</u>) :). On a more serious note, people frequently <u>die</u> there from diarrhea and other diseases. So how are the two related? People from that village were not even asking that question, as they weren't able to see any connection between 'shitting everywhere' and the perpetuation of diseases.

A group of 'more knowledgeable' people went there in an attempt to explain the causation of the diseases. What they first realized is that the people do not have toilets. They asked why and were told by the villagers that it brings bad luck to 'shit' in the same place. You can even get cursed if you do that, they argued. They also claimed that the diseases are the result of witchcraft. Keep in mind that these were serious grown-ups, 'reasoning' here.

There is a river on one side of the village, but it would be difficult for some of us to tell whether it was a river or a pile of garbage drifting apart. That's how much garbage was in that river. People used the river to pee or 'shit', and to dispose of their garbage, but they seem to have no problem drinking water from the same river.

The group trying to help these villagers explained to them how contaminating the water and defecating in the open fields spread the diseases they are suffering from, and how those diseases kill many of their own people. But the villagers were confused and did not see the connection.

#### Let's pause here, as I have two interesting 'stories' in regards to this.

In some experiments around the world, children have been 'tested' to see how they react when given a drink with a bug in it. Younger children, somewhere below the age 4, typically took the bug out of the drink and then drank the soda. They made no connection that the bug may have 'contaminated' their drink. However, most children older than 4 immediately refused the soda, saying things like "it was touched by the bug".

Researchers said that this may be due to their upbringing, where parents teach them to never eat something off of the ground. This holds true when we look at poor tribes (countries) around the world, where people may not see any problem in what they eat or where the food is coming from. For instance, if you were to become poor and homeless, you might become very accustomed to eating from garbage bins without feeling grossed.



The second story is about me. I've had this 'mental disease', for as long as I can remember, that I do not like to drink or eat something that someone else has already started to consume. For me, it's gross to drink from the same glass as anyone else, or to eat food from the same plate. I have no real explanation as to why I ended up like this, but I am the only one I know from my own anturage that feels this way.

When I was in school, I was asked how I could think of that as gross, but not french kissing a girl. I said that when I 'french-kiss' a girl, I don't 'taste' her tongue or mouth; that it's a very different situation for me (mentally), but when I eat, my sensors and my mindset are all focusing on the taste of the food or drink, and I just can't enjoy it while thinking that someone else's mouth (and saliva :) - bon appetit) has touched that food or drink.



I am sure it may sound weird to many, but when I was discussing the people in Kenya with a friend and how they see no issue with drinking from the same river where they dump their garbage, I told him that maybe they are as 'blind' as most people are when they drink from the same glass or eat from the same bowl as others, or even when they kiss and share <u>millions of bacteria</u>, at least in the sense that they don't see the 'connection'.



Of course, while the people in Kenya risk diseases, and even death, by drinking from the contaminated river, it seems to be caused by the same thing in both examples: people not making the connection or just not caring enough. I'm not trying to say that there's anything wrong or right with this; I am just trying to point out something that you might not have 'reasoned' before, similar to those people in Kenya.

Like so many others, I don't make other connections with things like the fact that we probably take in lots of dead skin cells that 'lurk' in the air (this doesn't pose a gross concern for me) or that when we sense a bad smell, the particles of that smell (from a horse's butt for instance) are already in our nose and mouth and lungs, which is why we 'sense' them. I know all this but, for some reason, I can ignore the dead skin cells thing and I will hold my breath if a horse farts. And yes, I can drink or eat after someone else if I really need or want to, but I prefer not to, and I do not avoid that because I am scared of microbes.

So, my 'reasoning' is what it is, which is simply a mutation of different ideas that made their way into my head, just as someone else's 'reason' as to why they don't have a problem with eating or drinking after other people, or from a contaminated river. We are all right, and wrong, as well as neither of those. It is what it is.



Back to Kenya, the leader of the organization thought of a different approach to explain to them why they were getting sick. He took the people and organized them in a circle. He asked "where do you shit?", and shamefully smiling people began pointing in all directions. He then said "take me to any such place".

They went into the fields where the leader found a pile of 'fresh' poop. He scooped it onto a plate, went back to the village and brought the people back into a circle formation again. In the middle of the circle was the 'shit'. He put a piece of fresh bread besides the 'shit', and then touched the shit with a wooden stick and mixed it into the water in a fresh new water bottle.

The crowd was confused and grossed by all of this.

Then the leader said "Who wants to eat the bread now?" No one responded. He tried to pass the bottle of water to one of the circle-members, saying "Here. It's very hot out, so drink!" The person refused. "What is the problem?" he said. The village people said that the poop is mixed with the water now, and that flies touch the 'shit' and then touch the bread.

"Aha!" the leader said, "You see now that you eat shit?"

"Bad stuff from your 'shit' gets into your food and water, and this is why you get sick. You shit in the fields, so flies touch your shit and then come into your homes and touch the food you eat, and the river's water has shit in it. If you want to not eat shit anymore, help me build some toilets!"

The next day they started to build toilets.



The moral of the story is that there is no 'one way' to explain something to someone. There is no 'universal logic' out there, if you thought such a thing.

#### Let me show you more what 'logic' looks like within different cultures:

In the early years of cinema, some people went to a remote tribe and asked all of the tribe members to come and see a movie on a big screen. The 'modern tribals', the ones that visited the 'primitive' ones, selected the most well-made, well-known, well-acclaimed movie of the era, and projected it on a big wall for all the 'primitives' to see.

After the movie ended, the 'moderns' asked the tribe members what they thought of it. They said that if they have such a big screen, why they don't show men from head to toe? Why show only a man's face or feet? Didn't they fit the screen? That was their reaction. They couldn't have had any opinions in regards to acting, shooting, movie producing and such. Those are things you learn about, and the way you quantify them is also learned, which is why the 'primitives' could not understand what the 'moderns' were trying to show to them.



Another <u>experiment</u> was done with a different 'primitive' tribe, when a group of 'modern-tribals' showed them this photo



and asked them to say which animal the hunter is pointing the spear at. They said the elephant. Does that seem counter-intuitive to you?

## WHAT DO YOU THINK OF THESE TWO PHOTOS?



Awesome, right? Confused, perhaps? You might say they are low quality... couldn't they use a better camera? Can you tell what is closer in the photo or what is actually in these photos? I bet not many can, you 'primitive' bastards! :)

The first one is a 'photo' of a hydrogen atom's structure; a sample of the tiny atomic structures that form everything from chocolate to mountains, you, socks, water, clothes, or galaxies. These incredibly tiny structures were unknown just 100 years ago, but now we have 'photos' of them.

The other photo is the farthest (i.e. oldest) galaxy ever photographed. It is 13.1 billion light year away, which means we see it as it was 13.1 billion years ago, so more than likely, it does not exist anymore. The two photos then represent the closest structures we can 'photograph' as well as the farthest ones. Are you impressed now? Can you see the connection with the 'primitives' now?

You can't tell much about the structures in these photos because you are not a photoionization microscopy researcher or astrophysicist, or at least someone with a lot of real knowledge about these things, so you don't know enough to judge, just as those 'primitives' were unable to judge 3D depth images. They were never exposed to them before, so they couldn't 'reason' through it, as many 'moderns' are unable to 'reason' their way through the photos I just showed you.

Just as those 'moderns' thought that it should be 'logical' that the 'primitives' would be impressed by such a 'good' movie, in the same way an astronomer (or any kind of scientist) might think it 'logical' that showing us photos of galaxies and atoms will make us feel in awe and appreciate them. All of them project what is 'logical', but it is only 'logical' from their own perspective.

One time I tested the 'reason' thing by telling my mother that a star fell onto Mexico, following a 'shooting star' event, killing more than 1,000 people. She said she didn't believe me. When I asked why not, she said that she had just watched the news and there was nothing about that...:)

For those of you who know even a little bit about stars and meteorites, the story is wildly stupid. But my mother knew nothing about stars or meteorites, so she could not 'rationalize' that.

I've overheard other 'modern' tribals wondering aloud if the clouds are higher than the stars, or the other way around. These are not stupid people; they just don't know enough about the world.



#### EVEN THE EXPERTS FAIL AT THEIR OWN GAME:

In the documentary <u>Battle of The Brains</u>, a scientist was challenged to pull a cork out of an empty wine glass bottle. He struggled a lot but was unable to figure it out a way to pull it out. I watched his attempts with a smile on my face, because I had seen the 'trick' before, but he could not 'reason' a way to pull it out, despite being a scientist.

I once saw a 'religion vs science' debate video with <u>Richard Dawkins</u>, who is also a scientist and a symbol of 'skepticism' to many. In that video, he was asking the opponent as to why he didn't teach his children any other religion than the muslim faith. The opponent replied by asking Dawkins why he didn't teach his children any other language than English.

That shows that even if so called 'skeptics' are very knowledgeable in certain aspects of society or scientific domains, they may be completely oblivious when it comes to other things.

Do you think Dawkins is 'skeptical' about how the monetary system works?

Do you think he has ever asked himself why he has taught a certain language to his children when there are so many others out there, and why there are so many countries, or even questioned what a country is?

Maybe he did, but for sure he is just as completely ignorant about many things as any of us.

#### Optical illusions and magic tricks are some of the most entertaining ways to recognize that our 'skeptic' skills, or 'logical' ideals, should be subjected to some serious questioning.

One of the most famous optical illusions is the <u>Müller-Lyer illusion</u>. Take a look at these lines and and try to tell which one is longer. Got it?



In reality, all of the lines are equal, yet our mind is easily fooled to think that one may be longer because of the different directions of arrows at the end of both sides of each line. One has to "learn to see". If people had training in perspective drawing, they would more readily see that these lines are all the same length.

As a side note, this experiment was done in several other parts of the world and the effect was not the same at all, thus implying that there may be a cultural influence that allows such optical illusions.(source)



So, we can be tricked by all sorts of brain-failures: from what we see, what we hear or, in general, how we directly sense the world around us, simply because we are processing all of that with our brains, and our brains, profoundly shaped by culture, can be easily fooled. This contributes to our 'inability to reason' even more. A few months ago, someone sent me a magic trick video that she was quite 'moved' by. She told me that she was amazed at how the guy in the video guesses any card that's picked. The video went viral as far as I know. I saw the video, I picked a card, and guess what...the guy in the video guessed the card I chose. This is the video, watch it and see if you can figure out how he does it:



Since I've seen many similar magic tricks before, I know how they are done, and my understanding of the internet may go well beyond the average internet user, I deduced the following:

1. The 'magic' always happens in a simple way, during a moment that you're not paying attention, and (of course) there is no way for someone to know what you are thinking about (it's just a show).

2. It is a video, so it must be the same video each time you play it. Therefore, nothing can change about it, even though it seems that the guy guesses any card you pick every time you replay the video. So I deduced that it doesn't matter what card you pick, he will guess it.

Therefore, the 'magic' was never in your hands, but in his (like most magic tricks).



Just to test my theory, I played the video again and chose two cards this time. I realized that the guy changes all the cards, not just one, and thus any card you pick won't be in the second 'reveal', thus 'guessing' any card you pick. I 'reasoned' through all of this in less than a minute, but I saw many people commenting on the video and posting on facebook that they were completely 'mind-blown' by the trick, not connecting the 'right' dots.

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The person who showed me the video was very impressed that I was able to figure out the trick so fast, but the only reason I could do that was because, as I said, I had some prior knowledge about that particular subject.



However, even if you're knowledgeable about a particular subject like magic tricks, it's often not enough. Penn and Teller are two very well known 'magicians' who invent all sorts of magic tricks that fool millions of people around the world.

They are very knowledgeable in this area, but in their show "Fool Us", where they challenge other magicians to 'trick' them, there are plenty of people who manage to do so.

Here is one such example (quite entertaining and interesting):





<u>James Randi</u> is another 'magician', even more well-known than Penn and Teller, and actually served as an inspiration for Penn and Teller. Randi was more than an entertainer during his career, as he spent a vast majority of his life debunking all sorts of pseudo science: fortune tellers, mind-readers, and so on. In one instance, he secretly brought together two magicians and had them pose as 'psychics' in part of a real months-long scientific experiment meant to debunk psychic abilities. In demonstrating their 'paranormal' abilities, they managed to completely fool the scientists and their rigorous experiments, proving once again that no matter how 'skeptical' you are, you can be fooled. Randi's career and the experiments he did are presented in detail in a 2014 documentary called <u>An Honest</u> <u>Liar</u>.

One very well-known 'psychic' that Randi had to deal with many times in his career was <u>Uri Geller</u>. Uri was claiming to have supernatural powers, and made a fortune out of this. Randi debunked Uri many times, but what is even more interesting is that this did not affected Uri's career at all, as he continued to attract more and more followers and make more and more money. One thing that Uri said in the "An Honest Liar" documentary really stood out. He said that no matter how many psychics Randi debunked, the psychics are thriving. And he's right.

This has a lot to do with the monetary system, which reinforces psychics to strive to become popular, since that means more money for them. Their becoming popular then influences even more people to unwittingly believe in such things. Not only that, but as we covered in previous articles, people need to work most of their lives in the monetary system, so they do not have the time to get properly informed, and the information that is fed to people is often of poor quality due to financial limitations in research or media distribution, or because many media outlets are more simply focused on presenting whatever 'sells' best, often misinforming people. This relationship of money and pseudoscience gives birth to ignorant people.



Ok, so if everyone extracts different meanings from the same data, and there is no universal way of finding common ground, then how can this chaos be managed?

Here is my, hopefully, 'educated' 'reasoning':

From tribes to magicians, scientists and 'professional skeptics', optical illusions or monetary influence, I think we can draw a more realistic picture of what 'reason and logic' may mean, and that is: the world is very complex and the only way to understand it is to first learn as much about it as possible, and from many different domains through the lenses of science; to base your judgements on scientific facts as much as possible; and to question your own way of thinking, as well.

It's also very important to clearly and readily recognize that the way you see the world, no matter how much of your judgement is based on science, is uniquely yours, and people will understand or misunderstand what you are trying to say to them through their own unique brain.



Therefore, since there is no one way to try to get your message across, you have to do your best to first understand the people you are talking to, and how they see the world. Remember the 'shit' example. ;)

Whenever you try to superimpose some kind of 'social' rule by saying "let's be rational", or "let's use logic" or "let's work through this skeptically", you should now better understand that there is no real rule there. Instead, you are merely asking people to follow your own personal set of steps, which they may or may not understand or be able to follow, no matter how much it might make sense to 'your' brain.

Therefore, education is the solution, education about other cultures, about human behavior, about the fallacies and limitations of our brains, about a general understanding of the world we live in. I have to remind everyone that this is different from "the scientific method", which is rigorous, complex and universal, and we will create a series of articles explaining that complex subject in the near future. This article is referring strictly to how notions like 'reason' and 'logic' are used and interpreted within today's society. In fact, there is no contradiction regarding climate change, or even religion, when it comes to science.

There are many scientific studies that directly and thoroughly address the factors of climate change, and many scientific studies that are very exact in dissecting religion from a historical perspective, as well as from the behavioural perspective. And that goes for any subject that is analyzed carefully by groups of scientists over long periods of time - there is always a scientific understanding, no matter how weak or strong it may be at any given moment about any particular subject.

This is why 'reason' and 'logic' are only attempts to simulate science at societal and personal levels, and this is why we do not see ideas like the ones we present through TROM about changing society, being tested, or at least discussed at a high level, because people are instead trying to 'reason' a way to organize society in their own 'image', rather than applying a science-based systems approach plan to it.

The thing is, even if they try to 'science' a way to a saner society (trade-free), being trapped in a monetary-based system that is prone to severe corruption, financial limitations and cultural filtering, the 'science' would be biased, limited and, therefore, unscientific. They need to put all of that aside if they want to properly 'science'.

### **STEPS OF THE SCIENTIFIC METHOD**



## TO CONCLUDE THIS ARTICLE, I WANT TO TELL YOU A STORY THAT COULD OR COULD NOT BE TRUE, THAT, FOR ME, BEST DESCRIBES 'REASON' AND 'LOGIC':



An experimenter put 5 monkeys in a large cage.



High up at the top of the cage, well beyond the reach of the monkeys, is a bunch of bananas. Underneath the bananas is a ladder. The monkeys immediately spot the bananas and one begins to climb the ladder.



As he does, however, the experimenter sprays him with a stream of cold water. Then, he proceeds to spray each of the other monkeys. The monkey on the ladder scrambles off and all 5 of them sit for a time on the floor - wet, cold, and bewildered.



Soon, though, the temptation of the bananas is too great and another monkey begins to climb the ladder.



Again, the experimenter sprays the ambitious monkey with cold water, and all the other monkeys as well.



When a third monkey tries to climb the ladder, the other monkeys, wanting to avoid the cold spray, pull him off the ladder and beat him.



With that behavior now established, one monkey is removed from the cage and a new monkey is introduced.



Spotting the bananas, the new one naively begins to climb the ladder. The other monkeys pull him off and beat him.



Here's where it gets interesting. The experimenter removes another original monkey from the cage and replaces him with a new monkey. Again, the new monkey begins to climb the ladder and, again, the other monkeys pull him off and beat him – including the monkey who had never been sprayed.



The monkey replacement process continued until none of the original monkeys were left and, by the end of the experiment, despite none of them having ever experienced the cold, wet spray, they had all learned to never try to go for the bananas, and to prevent anyone else from trying.



This perfectly illustrates that whatever we do, we do it because we learn to do it, and whatever we think, it's just part of a soup of information that we have been exposed to. There is about as much 'reason' and 'logic' in our everyday actions as there is in my dreams :)

In thinking that you are 'skeptical', you are not 'skeptical' enough, and thinking that something can be universally 'logical', is 'irrational', at best. :)

# We cannot think or reason beyond our culture and experience.



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