

**From the past to the
future , or
What is time?**

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Introduction

The reason for writing is not to change lives,
but to help us understand and observe life so
we could smile looking at a [falling leaf](#),
a buzzing bee and wind on the forehead tossing hair.

To remind myself to re-read, when I lose myself in my own battles.

It is a mental experiment to stretch the boundaries of our imagination
and to have a peek into the [greatest creator](#), the god, nature and the alien world.

It's an open invitation to the pleasant and unpleasant human beings for a discussion
on our own existence.

To explain my silence and inability to speak

I did not create the language,

Hence, not the creator of knowledge and wisdom it produces.

Chapters

1. [A walk on the beach](#)
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A walk on the beach

One day I had a walk on on [the beach](#).
With my daughter on my shoulders.
My feet dug deep into the sand as I walked;
On halfway I looked back.
Most of my footsteps washed away,
No trace , fresh sand covered footsteps,
Waves crashed as ever.
Then I realized,
That I had no [past](#), I had no [future](#),
And I cannot harvest the [power of now](#).
It is too fast !

Views about time, a peep under the hood.

What is time?

It's a basic question that someone should answer. It's such a simple question. But philosophically and scientifically it's a deep subject. There are a bunch of questions which we should answer before embarking on anything conclusive. The question itself will lead to more questions than answers.

Is time our [fourth dimension](#)?

Is it a dimension at all?

Is it possible to travel in time?

Why was time slow when we were younger, and travels fast when we are older?

The question itself can lead us to answers, and can lead us to understandings of life, [our journey](#).

Again, What is time?

To explain and build around, we need to explore current thoughts about time. According to physicists time is the passage of events from past to present into future. Time is considered unidirectional by some which is meant by the arrow of time. (which is controversial as by definitions of scientists)

Time traveling

Still there is a debate whether we can ever go back to our past. If we could, we have to give answers to questions like the Grandfather paradox, where a time traveler is going back and killing his own grandfather so he would never be born, and he could never kill his grandfather in the first place, hence the paradox.



Fig 2. Unidirectional Nature of Time.

In a way, time has become a monster to us. Anyone can deny, saying time is the [greatest asset](#), as time allows one to travel the world, conquer one's [fears](#) and feel the great pleasures the world has to offer. However, the fact stands, clicking the clock a second means death is one second closer than before. Although there are thousands of pleasures, happiness and smiles between you and death if time is linear, it would mean

that for a rational person with mindful awareness it will leave thousands of questions to answer.

If it wasn't for [death](#). There would be less need for religion. **Man's search for meaning** in life has created thousands of religions in the world. The moment [religion](#) is mentioned we tend to be prejudiced. It's a weakness in our nature to carry the beliefs of our fathers even if we are stuck between our headphones, televisions and bombardment of information. We tend to argue with science to strengthen our beliefs. Whatever religion, whatever culture, our inherent nature to know the unknown will lead us to new views about nature.

Unfortunately in the modern world most of us do not have the luxury of having a peaceful mind to create opportunities to revisit our beliefs like our ancestors had. So I invite you next time at the end of a hard working day, when you get back to your comfort of home and relax on the couch, take one minute of your time to appreciate the beauty of [silence](#). Meet your death like a friend on the comfort of your couch years before it reaches you. Let it wander in silence like our ancestors did. Who knows, with the wisdom it provides you can be the next great philosopher, the leader of the next great religion or simply it can let you revisit deep dark holes and gaps in your past. And once you do that, answer the following question.

Can I really learn lessons from the past? If not, why? If so, how?

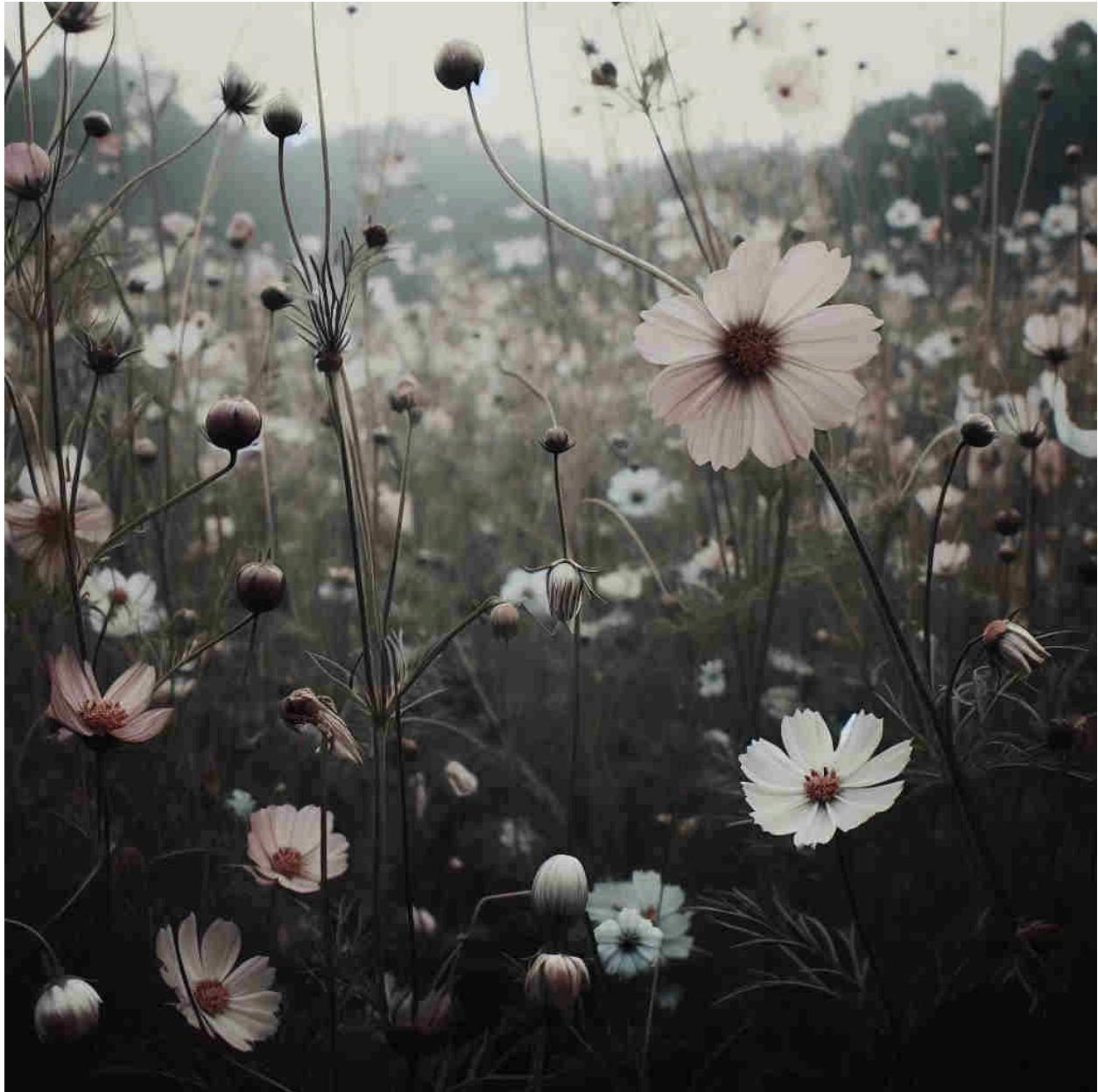


Fig 3. To take a Walk In the Park.

Next time when you [travel](#), go for a walk, walk in the garden, let the time slow down. How? You would ask. What did you do last time when you were so angry, Or so sad because of your life problems? Having company is great. Taking time to distract yourself works fine. Time travels fast when we are with family and friends. However, I suggest you take a walk alone.

Take a walk alone in the park.
Take a walk alone on a river bank
Take a walk alone on the street
Take a walk alone on the beach.
It doesn't matter where you are
It doesn't matter who you are
Take a walk in a corn field
Not with your dog, not with your horse
Not with your family and friends
Not in your running shoes.
It's a walk to exercise your mind.
Take a walk with yourself
And let him do the talking
Not your [phone](#), not your dog
Your mind craves to talk to you.
Be your own **Dr [Suess](#)**
But I would warn you.
Don't believe everything it has to say!

If you are taking a walk, [slow down](#) your speed. Slow down your speed so your train of thoughts are slowed down. Slow down, so much that there is no speed. Until you stop on the side of the road. Take the narrow path that nobody wants to take. Which will isolate you in the middle of the busy roads. Take that narrow path so you will meet no dogs, no humans, which will take you deep into thick bushes. Slow down and stop at some point. On the middle of the road. On a bench. On a tree trunk. [Listen](#) to the silence. You will realize silence is a chapel. Do not try to give it a name, let it be a meditation, let it be mindfulness, let it be your **Call of the wild**. Let it be your next great experiment.

Look at a young traveler, solo traveling around the world to see the unseen, to face the unfaced, feel the unfelt pleasure of delicacies. He or she would believe that we are made for this reason, to do everything before we die. For most of us this will feel fine and we would encourage them. He would die happily at the end of the life thinking he has spent the life for the maximum. He might [jump](#) off a cliff into the ocean to feel

what it feels like risking own death. (we all want to feel this energy) Where are we not jumping from ? We jump from skies, we jump from hills, we jump from buildings, and running horses it's a constant thirst for an adrenaline rush.

Life as a free fall

It is a big risk to take a lifetime of decisions to depend on views which are shaped by our teachings, culture and science. As nobody can answer why we were born, It is a gamble. We have only information, given to us by our own ancestors to make these decisions. There is no difference between someone who gambles at a casino, someone who takes a cigarette for the first time in their hands or someone who wakes up early to go to the job, in his office. We all take the free jump, pushed by [our will](#). As all those decisions were made possible and limited by the [information](#) we received. We are clueless, risking our lives in everyday decisions, as we do not understand the limits of the current understanding in [science](#) and [nature](#). What if life is a free fall, what if there is no destination but it's only a journey? What if we all are in a train which never stops?

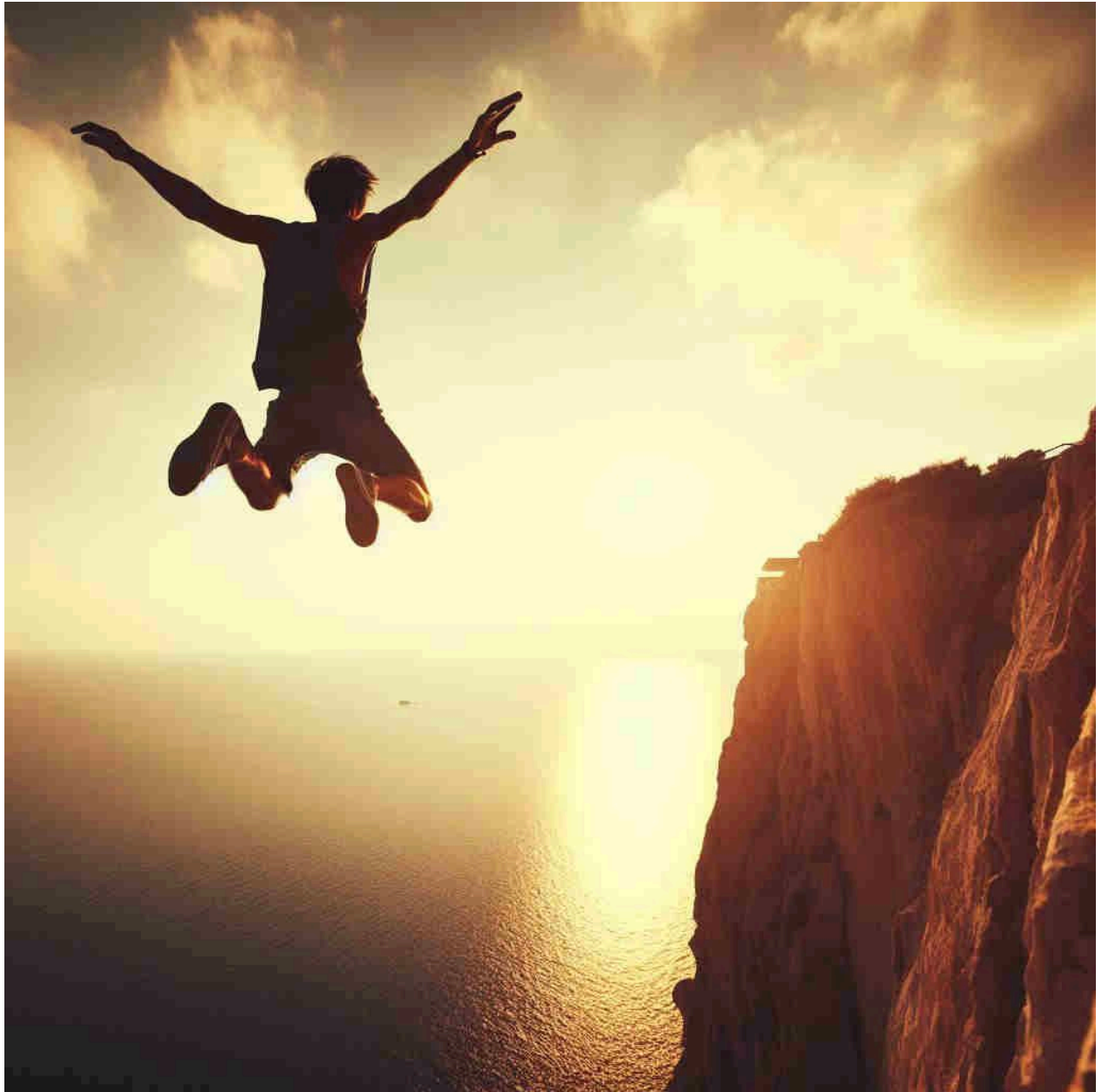


Fig 4. Life as a free fall

Eight thousanders

K2 is one of the 14 [eight-thousanders](#), which is the second highest mountain in the world and second only to **Annapurna 1** as the deadliest mountain. One in four people have died in attempts to summit this deadly pyramid in karakoram range in pakistan, which has given the nickname 'Savage mountain', not for the faint heart. Each year a few mountaineers attempt at the summit of this deadly beast, and risk their own lives. It is not a simple endeavor even for the experienced as they have to survive harsh conditions and deadly challenges even to have a view of the mountain as it is so far away from human reach. Summiting this mountain is considered a great honor, although even for the most successful they have only a few minutes to spend on top of the world enjoying mesmerizing views, as more time they spend enjoying their success the more they risk as climbing up is only half the journey.

[Death](#) is more common, is honored, but each climber takes a gamble against nature. Sometimes they have to give up on lifelong friends on top of the mountain freezing to death as there is no way to to help without risking their own life. An icefall, a slip of a foot, a change in weather and exhaustion can kill. Yet the hours spent in planning and challenges they face, what drives these [brave](#) men and women to conquer their fears? Are rewarded by the time that they spend on the summit.

Why is it less rewarding when the challenge has less risk to life? Why does it have to be the K2 rather than the village mountain, or top of your house, or top of your table, or your feet? Who gives the [value](#) to the K2 summit?

How many mountains do we have to climb? How many [waterfalls](#) do we have to see? How many lakes and parks do we have to visit? How many challenges do we have to face until we are satisfied?

[Biggest mountains are created by mind.](#)

Time creates [happiness](#), sadness and stress, like a double edged [sword](#). For everyone. Before we make important decisions about what we do, it is best to at least understand our story which is written over a period of time, hence time. Time is the monster, the illusionist, the [great writer](#) of all our tales. Lets try and visit him, in his home.

We will look at time in different angles, let it be linguistic, cultural, scientific, natural or philosophical. As we take the journey some questions will be answered, some will be created, and most of them will disappear with [wisdom](#) (as questions were wrong in the first place.)



Fig 5. K2 King of the Mountains

Few definitions from the dictionary and few questions to answer,

It all [starts with why?](#)

Definition 01 , Time : “The indefinite continued progress of existence and events in the past, present, and future regarded as a whole.” (Oxford dictionary)

Definition 02, Time : “a nonspatial [continuum](#) that is measured in terms of events which succeed one another from past through present to future” (Merriam-webster)

We can ask a few more questions about time looking at these definitions, and try to answer them as our understanding deepens.

Questions:

Is time indefinite?

If not, what is the [beginning of time](#)? What is the end?

If it is indefinite, where was the time before I was born and what happens to it when I no longer exist?

If time is the progress of existence, what happens when I [sleep](#)?

Does time cease to exist? Or will I cease to exist?

More importantly, where is the past? Where is the future?

If events define time, where are these events stored? Is that the palace time stored too?

Is it in the library? Is it in the data bank of microsoft?

Definition 03, Time : “The measured or measurable period during which an action, process, or condition exists or continues “ (merriam-webster)

More questions....

How is time [measured](#)? How do you measure time?

If the above is true , does time exist outside the person who measures it?

Did the time exist before it was measured?

Time as a Genre

Time is everything as a genre. It could be the topic of the next great novel of the century. It could inspire us for a great film or war. It could spark love in two hearts apart.

Time traveler's wife(2009)

Age of adaline (2015)

Titanic(1997)

Butterfly effect(2004)

Time has inspired and influenced. Time is the great topic for romance, drama, action, erotic or horror. It doesn't matter what you prefer. Because you will find every genre hidden in pages of this story about time itself. And in every story there is the element of time. It's a story about the storyteller himself. Which cannot be less interesting at all. It's the next great [Arabian night's tale](#).

Titanic is undoubtedly one of the great movies of the century. It has inspired many of us to take challenges and live life day by day to the fullest, to [seize the day](#) (carpe diem as in [The dead poet's society 1995](#)) and seek new adventures. **Titan** (the sunken sub at the titanic [wreckage](#)) on the other hand is tragic. At least for now it will remain as tragic as Titanic was, when she sank. We have way past the mourning for Titanic the ship, and now it is a mere incident that happened so in the distant past that we can make a movie and laugh about it.

Titan on the other hand is still a horror, we are still in shock. We cannot talk about it without being sad about fellow human beings who should be living among us at this very moment. We cannot imagine the tragedy they succumbed, by the implosion which occurred down below at 3800m below the sea level, causing the collapse of the vessel causing instant ignition of air under the pressure of an eiffel tower. It lasted milliseconds. It's calculated, it took less time for them to turn into ash, before even their eyes and ears could make sense of what was happening. It's still a horror movie for all of us, let the time flow until it becomes a documentary, a drama and the next great story of love, by the next great director of the 21st century.



Fig 6. Titanic

The dreamers (2003)

The dreamers dream about dreams.

Dreams are just [dreams](#).

There is no truth about dreams.

You can work, walk and dream in a dream

But If you have committed a [crime](#) in a dream.

It's time to wake up,

Wake up before you are punished in your dream.

Lost the battle but won the war.

Three steps towards the truth

Throughout history there are numerous examples to reinforce the above. American revolutionary war, french revolution, World war one and two have shown the world that every battle is not about winning. Yet in [pursuit of happiness](#) in daily lives we all are so much focussed on winning every battle that we lose in [winning](#) the happiness war.

Let's go back to our examples from the sports, to understand wars against our own mind.

Step 1 - K2. Any serious climber would know that perfect climbing conditions will lead to [ultimate success](#) of summiting these giant mountains. So climbers usually wait days, weeks or months at their base camp waiting for perfect weather conditions. They do several acclimatization climbs in this long wait for them to prepare for the final push. They establish several camps at different levels of the mountain, back and forth they travel and fill these camps with supplies. They put up new lines in difficult parts of the climb, to help them better grip against fall. However after all the hard work and months of preparation, sometimes they have to give up without even an attempt to the summit. Some of them have to turn back a few hundred feet away from the top, due to physical exhaustion or bad weather. It is not bad to turn back as losing the battle doesn't mean that you have lost the war.

Step 2 - [Tour-de France](#). Last July was 120 years since its beginning of this race in 1903, and it has evolved over time into one of the world's most celebrated events. From a simple race of individuals it has evolved over time into teams, nations, individuals racing against each other. Every lap, every corner, every mountain, it's all about time. From beginning to the end of each race, time is [measured](#) and live displayed on the screen to the viewers all around the world. Throughout hours of the race, even after that, commentators comment about minutes, seconds and milliseconds of margins which has determined winners and runner ups, yellow, green and white jerseys. To gain such marginal advantages cyclists train throughout the year from special meals,

exercises, clothing, relaxation to perfect execution of their team plans to push against others. A century ago there was no technology to determine such marginal wins which are analyzed by advanced methods today using computers. Yet there were winners and prizes, praises and heartbreaks. Who determines the winning?

The winner of a race wouldn't be there unless there is someone to come second. Similarly the places at the end of [the race](#), are relative to each other. If there was only one person who was riding, there would be no race at all. So, participation matters. Hence the term, " It's not about winning but taking part ", but that is not complete either. If no one races against each other, it would be only a midsummer country cycle tour, a traveling and sightseeing tour, not the world famous Tour de France. Hence the term "It's not about winning but taking part, the essential thing about life is not [conquering](#) but fighting well." So, why do they fight? Or why should they fight against each other? What is the essential thing about a race being a race?



Fig 7. Tour-de-france

Step 3 - The Podium. Let's imagine a podium of **three steps**. Imagine any kind of sport you'd like to watch and you have been following. Imagine it's time for presentations. National anthem of the winner is playing in the background. Everyone is [presented with medals](#). Let's see what they are thinking. Let's look at the minds of the winners.

The bronze medalist is happy, he has done his personal best performance finishing the race in dazzling time. He is the best in his country, now he has won a medal on the world podium. He is happiest in his career and this will be the pinnacle of his life. Why wouldn't [be he happy?](#)

The silver medalist is happy, he is on the podium, he couldn't do his personal best. However he has got the next best, he is smiling yet there is a tug in his voice. He knows he could do better, maybe next time, maybe next year, maybe next race. He cannot fully appreciate his win as thoughts keep coming back. It should have been his anthem that is playing. Maybe he still has a point to prove to the reporters who are following him. But this time he settles for the silver.

The gold medalist, he is happy. This is the best he could imagine, Second time he has won the gold, he was just a millisecond away from the world record. Once again he has proven he is the best in the world. He could have been [happier](#) if he could get the perfect start today. It wasn't the best start, rest was smooth. He could have proven that he is the best ever lived if it wasn't for the bad start. Yet he is happy. Happiness is at 99.99 level except for the millisecond that he missed, it could have been 100.

It's not the participation, it's not the fight we are giving, it's the value which we give to these events by ourselves, determining winners and losers, triumph and failure. Who gives values to these events. If you look carefully, nobody gives value to these events. You only can give value to events in your own imagination. Whenever we measure, whenever we monitor, whenever we value, there will be a pursuit, there will be a race and there will be winners or losers. And we will lose the happiness war. To win the war against happiness, let's lose the values we have given to our battles. Can we do that? Never forget it's the war, not the battle which needs winning.

Who taught us to give values to these events? Our parents, our teachers, our books or science? Is it our religious leaders? Politicians or friends? Can we unlearn what we have learned and become a child again?

I saw a child once [playing a game](#). He was small, weak and significantly insignificant. The game was to collect candy on a mat. Candy was held up by a rope in a bag and released on command onto the mat. Kids ran to the mat in a rush. It was a mess, and parents encouraged their child. Everyone jumped into the middle of the mat

where there was a lot of candy. And started collecting. Insignificant could not push them. I saw him go circles and circles around the majority to collect insignificant candy slipped under their feet to the outer circle. And when it is time for the winner, guess who won, against all the odds. And he lost the battle, but won the war.

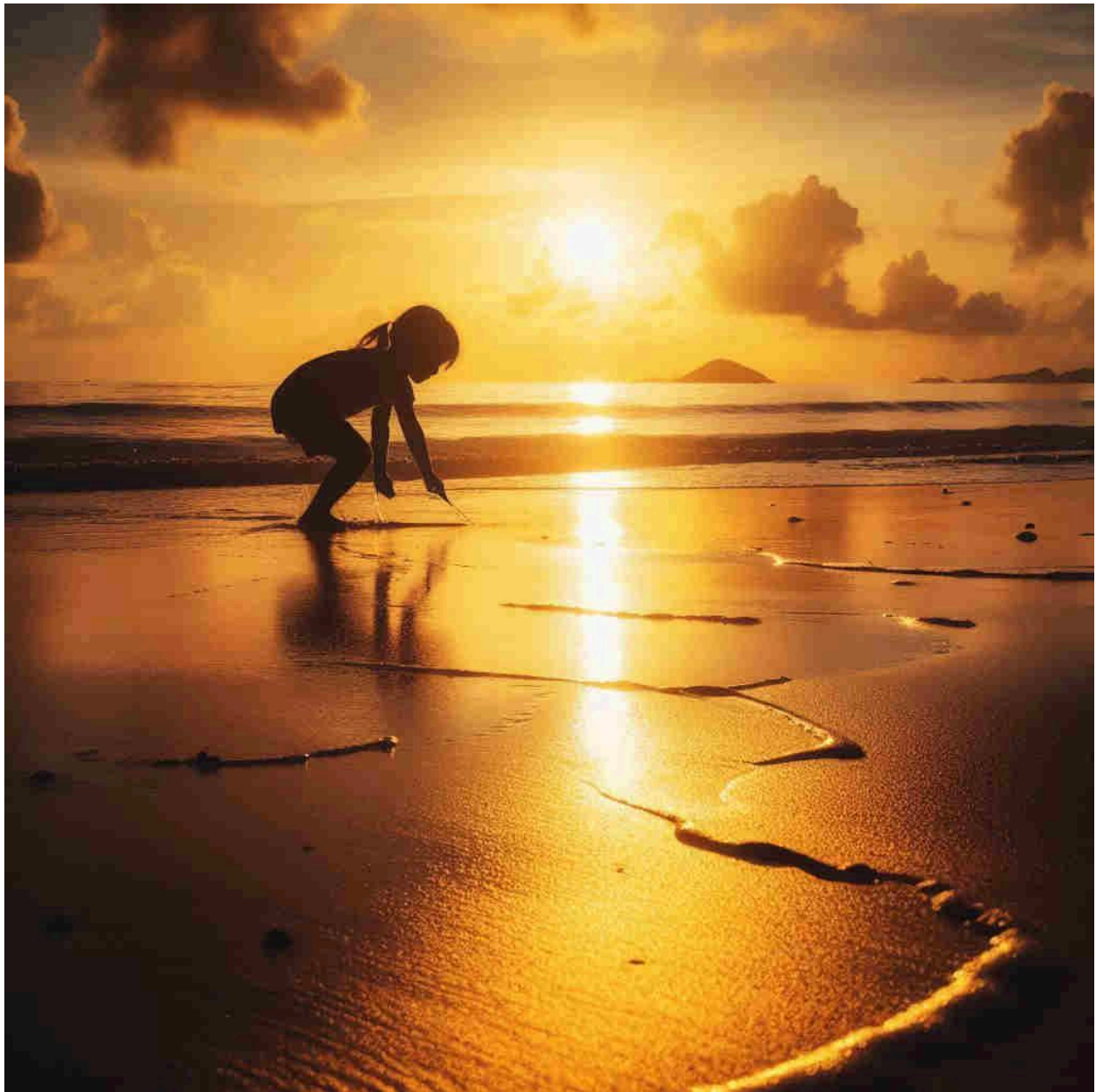


Fig 8. Silhouette of life

“Live for the moment”

When I was still a school boy, I heard the above phrase from one of my teachers. She was an English teacher. For some unknown mysterious reason I remembered it. I cannot remember anything else that she taught me specifically. But it is amazing to see how the mind plays games on us. I have thought about that phrase many times in the past. Many times in the future I will think about it too. At the time it seemed to be the best advice. It may be the best advice in terms of a rational mind, that would be the only wise thing to do. From time and time I have come across different versions of the same advice from great philosophers of the time, “Yesterday is history, tomorrow is mystery, Today is a gift , that's why it's called present “(**Oogway- [kung fu panda](#)**). It invites us to be mindful.

Yet we struggle to live in this moment. Our minds wander in the past and into the unknown future. There is more to the mystery than its thought. Can we really live in this moment? What about learning lessons from the past and planning the future?. What does the moment mean?

Does the moment mean today?

If so, how can I live in a day?

Does the moment mean an hour?

If so, how can I live in an hour?

Does the moment mean a minute?

If so, how can I live in a minute?

Does the moment mean a second?

If so, how can I live in a second?

Does the moment mean a millisecond?

If so, how can I live in a millisecond?

It seems stupidity to ask such questions.

But , as one of my [teachers](#) said,

“He who asks may be a fool for one minute, but he isn't a [fool](#) forever.”

Time seems so fast, if the advice is true I should be feeling each and every moment continuously being [mindful](#). Truth is, the mind is not capable of handling so much information. It simply cannot follow everything. It seems to be jumping from event to event or thought to thought from past to the future, trying to live in this second seems to be more of a supernatural dream than reality. Maybe a meditator can come closer to the feeling of a millisecond. But for an average human being, simply an impossible task. There seems to be the future, there seems to be the past, but the rate of the future becoming past is too rapid to grasp. It's after twenty years that I now feel, maybe it's all wrong. Maybe there is nobody in the seven billion human population that can grasp the reality of that fraction of a second. Or maybe I am asking the wrong questions. Maybe I should ask can anyone live in this moment? If we cannot live in that fraction of millisecond time which is 'present' where are we now? Am I in the past? Am I in the future? Am I in some kind of delusion of the mind? Is there anything which can be labeled as moment, or present?

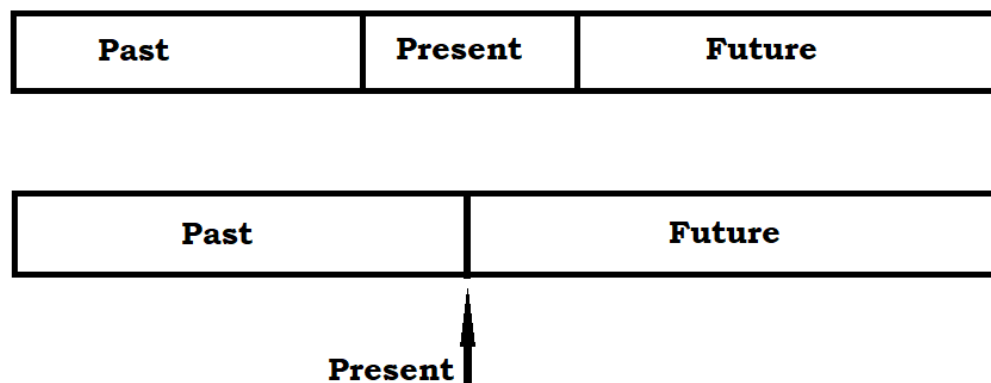


Fig 9. Traditional vs rational timeline.

Truths about life are hard to find - a crash course on ourselves.

[Truths](#) about life are hard to find, there must be a good amount of it out there. There must be a good collection of books written by unknown authors. If there is, it

must be brought forward for common good, we all must agree. But they lie in the back of a library somewhere. Covered in dust. Yet to be read. They do not turn into a million copies. They do not turn into films. However they will inspire an occasional [introvert](#) solo traveling in search of food for mind. It's unfair to all of us that we were not taught how wheels roll on a slope over time when we were first introduced to mechanics, other than the force speed and acceleration. It's unfair to us that we were not introduced to relative [truths](#) about time. It's unfair to us, and it's a disgrace to our intelligence (as we all have enough wisdom to understand) that we have to go looking for these when we face problems in life, in philosophy books, and literature. It's unfair to us that we were not taught, the more and more we travel in time, the more complicated our lives become.

There are crash courses on everything these days. Crash courses on cooking, crash courses on fishing, [driving](#) or gardening. You name it , it will be there, and if not someone will soon write about it. What about a crash course about the [meaning of life](#)? Are we missing the objective? What if the objective of life is not living a good life? What if it is far **beyond Good and Evil**? If It is the objective then, good ! Most of us should be happy and content most of the time. We obey the rules of society, we obey the [rules of nature](#), we do not steal, help each other. Yet it seems something is missing. We look everywhere for it except within ourselves. Constantly we are looking for the next great idea to inspire us. How many such ideas did not work in the past? Sometimes we can be so busy doing what we were taught up until we are ill or old and lose it to [dementia](#).

In the crash course of [programming](#) the first things we were taught are, about input output and processing which happens in between. Programmers write instructions in human readable languages which are converted by compilers to machine language in turn stored in registers of memory locations of computers. When there is input it will start processing it according to these instructions and output. It is amazing how binary data is so manipulated to give meaningful messages to us. If a commoner from the past traveled into the future, here today, he would be amazed and even think it is magic that such things operate. It would take some time to explain what is happening. But for a computer programmer with knowledge of boolean mathematics, compilers, and processors, it is no mistery at all.

With this understanding we can look back at our 'computers'. It is a well known fact that we also have some elements of computing abilities, after all we can do

boolean math! However all we can see is input and output. We do not know the [machine language](#), we do not know about hardware (maybe some understanding!) or software. We are like an AI so advanced that all that low level function has become automatic, that we do not have access to it anymore. Or do we still have access to our own programs? The truth is we will never gain control of this virus infected machine unless we look into each and every program and see what it does. Otherwise it is inevitable we would have a system failure at some point.

We will start by inspecting the program 'Time'.



Fig 10. Language

Language as a tool, language as a barrier.

As you can see, [language](#) is our primary tool for access to information. Let it be mathematics, let it be law, let it be natural sciences, let it be art. Language is a great tool for humans. There are thousands of languages out there to express ourselves. It is best to understand our limitations of language as a barrier to knowledge and wisdom as otherwise, we will have higher expectations than it can provide with words. Otherwise

we will be bookworms, math-worms and science geeks, stuck in the web made up of language.

Look at English , roughly with about one million [words](#), it is evolving day by day. It is a high level language that we can understand, and we do understand part of general and domain specific language. More that we learn other domains, the more our knowledge expands. However all these understandings can be expressed in zeros and ones in machine code. Although nobody can understand what is the meaning of it just by looking at those [zeros](#), it is good enough to generate complex ideas of windows and games and even good enough to make [Artificial intelligence](#) programs nowadays. Is it the higher order language we are using today a help or a hindrance to our wisdom? We can debate on it for next half an hour, yet we will come nowhere to the understanding as still we are using the same language to debate.

Game of life.

Three men played a game, on the canvas of time.

Rules were set, the audience was there to witness it all.

Good and evil were winning.

While wisdom played in silence.

For a long time, until it becomes a duet.

And they shot at each other, stabbed at each other

While the audience shook in horror

The [wisdom](#) disappeared with the prize

Into the thin air.



Fig 11. Game of life

The British mathematician **John Horton Conway** created the game **'Life'** in 1970, which is a zero player game, which depends on its initial state and evolution without further inputs. The game is played on an infinite canvas with cells which have two states either live or dead. The cells interact with neighboring cells by a set of simple rules.

-
1. Any live cell with two or three live neighbors survives.
 2. Any dead cell with three live neighbors becomes a live cell.
 3. All other live cells die in the next generation. Similarly, all other dead cells stay dead.

By applying these rules over generations, various patterns were observed, like still life, oscillators and spaceships (which moves forward),and in 2013 the first self replicator was discovered.

It is fascinating to see how such simple rules can develop [complex architectures](#) which mimic biology in nature. To understand our game of life, we need to understand our rules of the game. How are we going to do that if ever, when all we can do is process information and give an output. Are we giving enough good information for our machine to understand its own outputs? What is the language these [rules](#) are written in? Do you think it's English, Spanish or mathematics?

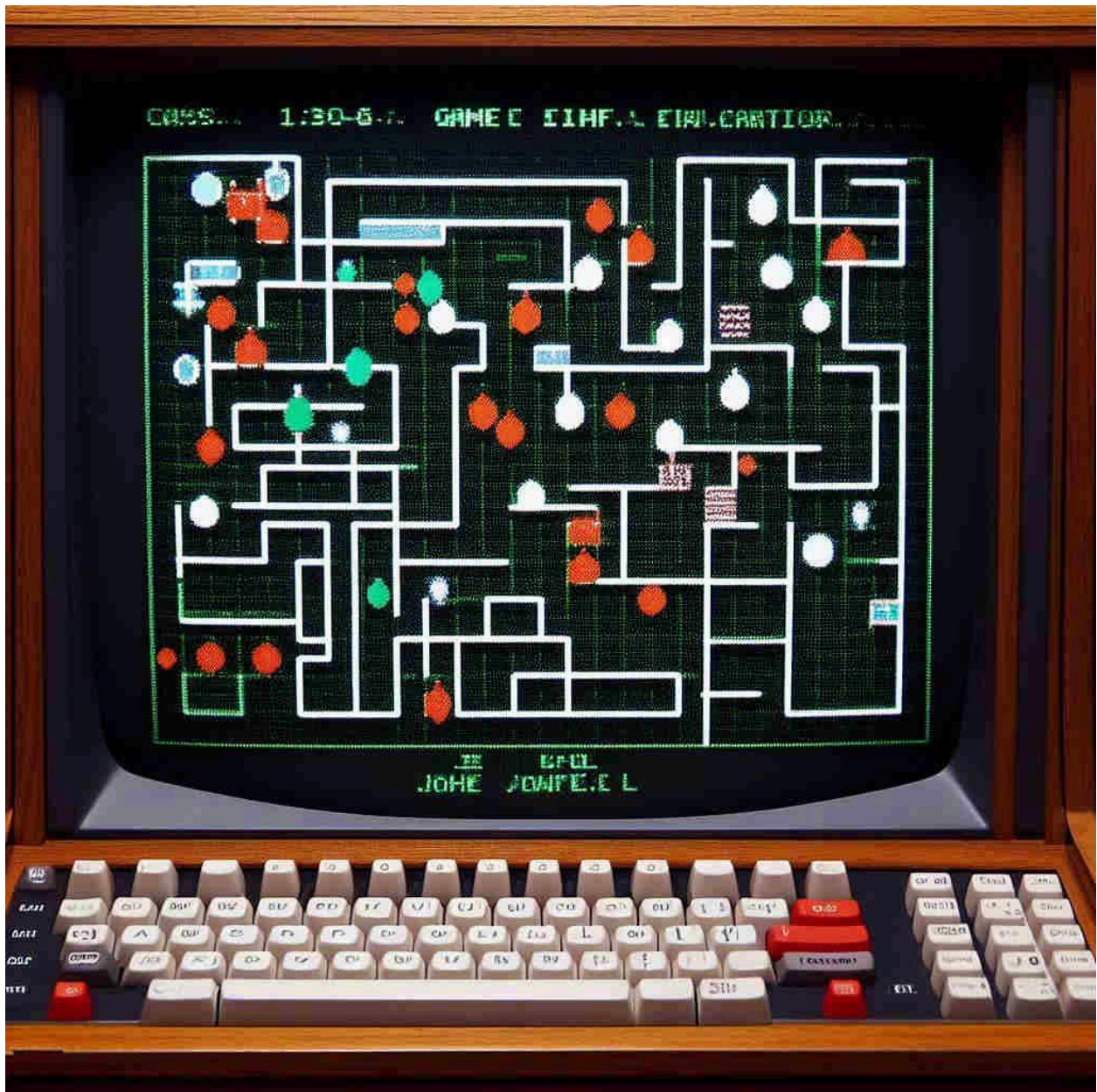


Fig 12. Information input, Processing and Output

Bloom's taxonomy of cognitive domains.

If you meet a hundred students who have succeeded in their studies, if you interview successful entrepreneurs and ask how they have done it, most of them will attribute it to some habits they have formed. Habits they have continued over time to gain momentum and ultimately it takes more easier to carry on than to stop. What

drives these people into such speeds? It seems they have marked inherent abilities of higher order [thinking](#).

The [bloom's taxonomy](#) states that there are six cognitive domains. Starting from low level remembering, understanding to intermediate levels of applying and analyzing. Higher order of synthesize and hypothesis/ create. However from the beginning it is important to try to hypothesize and create as there is no time wasted on low level cognitive tasks which will automatically follow.

And it is my apology to everyone who did not grasp the concepts at the first glance. But it is a necessary sacrifice for a higher gain.

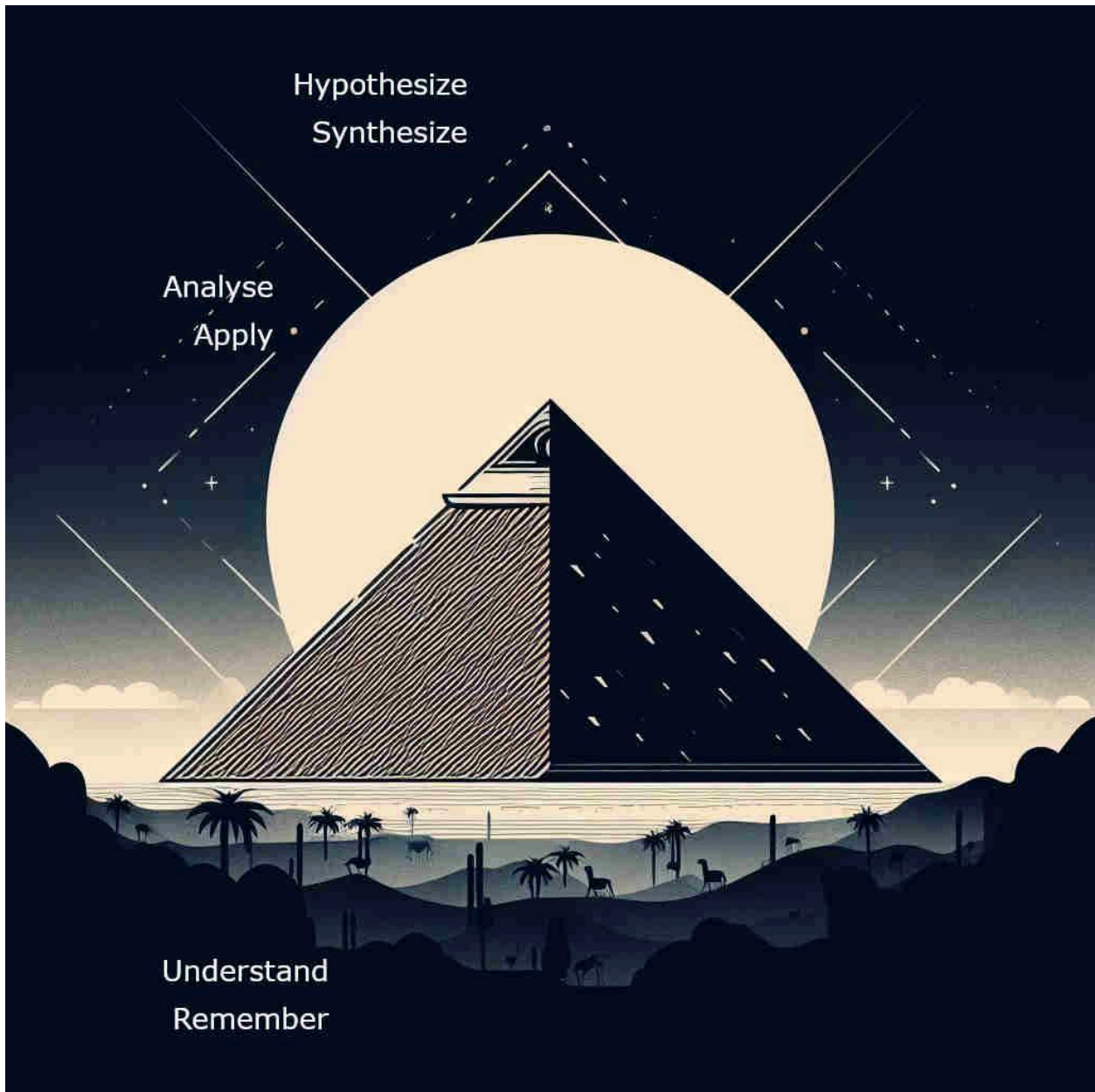


Fig 13. Bloom's Taxonomy of cognitive domains.

Eat your frog or kiss it?

Which is correct? When we were toddlers we read stories about the girl who lost the ball in the pond, met with the [frog](#) which ultimately led to the famous ugly kiss, turning it into a prince. Now when we are older our corporation teaches us to eat our frogs every day? Should I eat them or kiss them? If so, why should I eat my frogs? How can eating a frog be happy and successful when it is not even cooked? Can't I change

the menu, rather than eating those ugly horrible frogs everyday? Am i going to celebrate my promotion this christmas after eating those [frogs](#) every day? Look at yourself and find out whether you eat your frogs.

Of laziness and [minimalism](#) and predictions of the future.

We are so paralyzed by today's challenges and complexities and eating frogs. It has brought us to a point that we do not wake up from the bed anymore. Since when do we need willpower to get up from the bed in the morning? It doesn't feel right. Let's imagine that we are going to a supermarket to buy some goods. We are offered thousands of items of different colors and flavors, cooked uncooked, canned and packaged, cheap and expensive, everything is arranged in every way possible. Yet our minds have not changed at all. We still bounce between sadness and happiness over each item. The multiple choice questions [paralyzed](#) us with strains on our brains. How are we getting rid of this paralysis?

Hence the minimalist, It is not a modern concept, we were minimalists over generations before ours. Before our big cities and sophisticated equipment. We were minimalists. Our fathers woke up, did some work, brought enough [food](#) for the day, had plenty of rest, and slept, and repeated it. There was no story behind it, there were no secrets to success. There were no complex choices to make, like in a supermarket nowadays. Only a few essential tasks to do, only a few items to bring, then they invented science and complicated our world. Minimalism does not mean to do nothing and be lazy, however it is about the optimal balance for each one of us. We can be our own minimalists in our own complex world by being true to ourselves and our true needs, before complexity paralyzes and consumes us.

Next time when you dine, think about it. It can be as rewarding as sticking to the same flavors, than looking for new ones every time you dine.

What about predicting the future? Can we atleast predict the future and plan ahead of time? Of course we can as we imagine the visit to the supermarket. Let's imagine we are going to buy a bottle of water from a [supermarket](#). We plan at least 'go to the supermarket and buy a bottle of water' and we have an image of what is going to happen, at least a few images of what is going to happen. But yet that is not exactly how it is going to happen. Even if your best predictions are failing, that is not the exact shelf, exact bottle, exact way you imagined you would open your wallet, to pay. Our

planning is wrong, predictions are going to be wrong. We fail miserably in predictions for the future. We fail miserably at predicting the weather, we fail miserably at predicting which horse is going to win the race, even if it did, that is not the exact speed, exact circumstances. The complexity of nature is so enormous, there is no way we can predict the exact nature of the future. As you will see when we understand time more and more, it will be clear it is impossible because the sheer amount of data that would be necessary is immense and whatever we do today, a tiny change in the system can change the ultimate outcomes that we think we are [seeing](#). (**Butterfly effect**)



Fig 14. Butterfly effect.

Look back from past- Voyager and its time capsules

Voyager 1 and Voyager 2 are spacecrafts of NASA launched back in 1977. Two space probes are now beyond our solar system into interstellar space, operating over 46 years now since its launch. These spacecrafts carry time capsules in the form of identical copies of two golden discs carrying greetings, several messages and pictures from earth representing important aspects of our lives, in case they come across intelligent extraterrestrial life. Apart from close observations and measurements from [atmosphere and space](#), now we have the ability to look back at ourselves from outer solar space as these have transferred images of our planet from far away.

It is both fascinating and sad to see an isolated blue dot image of [our home](#) planet from far space. If we have learned anything from our space race this would be the most important lesson.

It is this tiny blue dot, a small isolated rock contains seven billion of us humans and countless animals.

This is our home, this tiny blue dot where we were born live our whole lives and die to become part of the rock itself creating space for [new life](#).

It is in this tiny blue dot, wars and famine happen, where we fight each other with our neighbors, with countries, in wars.

It is in this tiny blue dot, where we struggle to find peace, keep prisoners, where we travel looking for escape from [our own prisons](#). It is this tiny blue dot which is our own prison, where civilizations, developed and are doomed.

Imagine us on earth, most of us cannot climb an eight thousander, and we cannot go beyond a few hundred meters below sea level on our own. We live our entire lives in a tiny stretch of land. We are just bouncing subatomic particles, if our earth is an atom in the universe.

Imagine Everest and the mariana trench, What does it mean these massive creations of nature?. What is the difference we see when looking at them from the earth and looking at them from space? Is size also a relative truth? Otherwise how come they become massive at our scale but tiny at galaxy scale at the same time?

Have we learned anything from our greed to get a piece of this tiny blue dot? Where are we going to go with our win?

Do you think millions of galaxies will miss this tiny blue dot if it dissolves into a [cloud](#)?



Fig 15. Voyager in space.

In reality, the voyager is not the only time we looked back at ourselves. When we landed on [the moon](#), when we first went beyond our atmosphere, we looked back at the planet, our blue home. Today whenever we travel in an aircraft we have the opportunity to look back at ourselves. From above at 33000 ft we can see how tiny big ships are,

How small big cities are, How cars are invisible, how humans are smaller than [microbes](#), how [rains](#) are causing havoc down below. Imagine yourself on the ground struggling to do your errands in the confinement of the office and the home. Imagine the tiny microbes think that they are important beings and act crazy all day doing the same routines without thinking day after day. Next time when you are on the ground imagine how tiny a microbe you are whenever your ego tries to overcome you. Learn the lessons from the voyager. And Look back at yourself from above, without judgment to see what is happening.

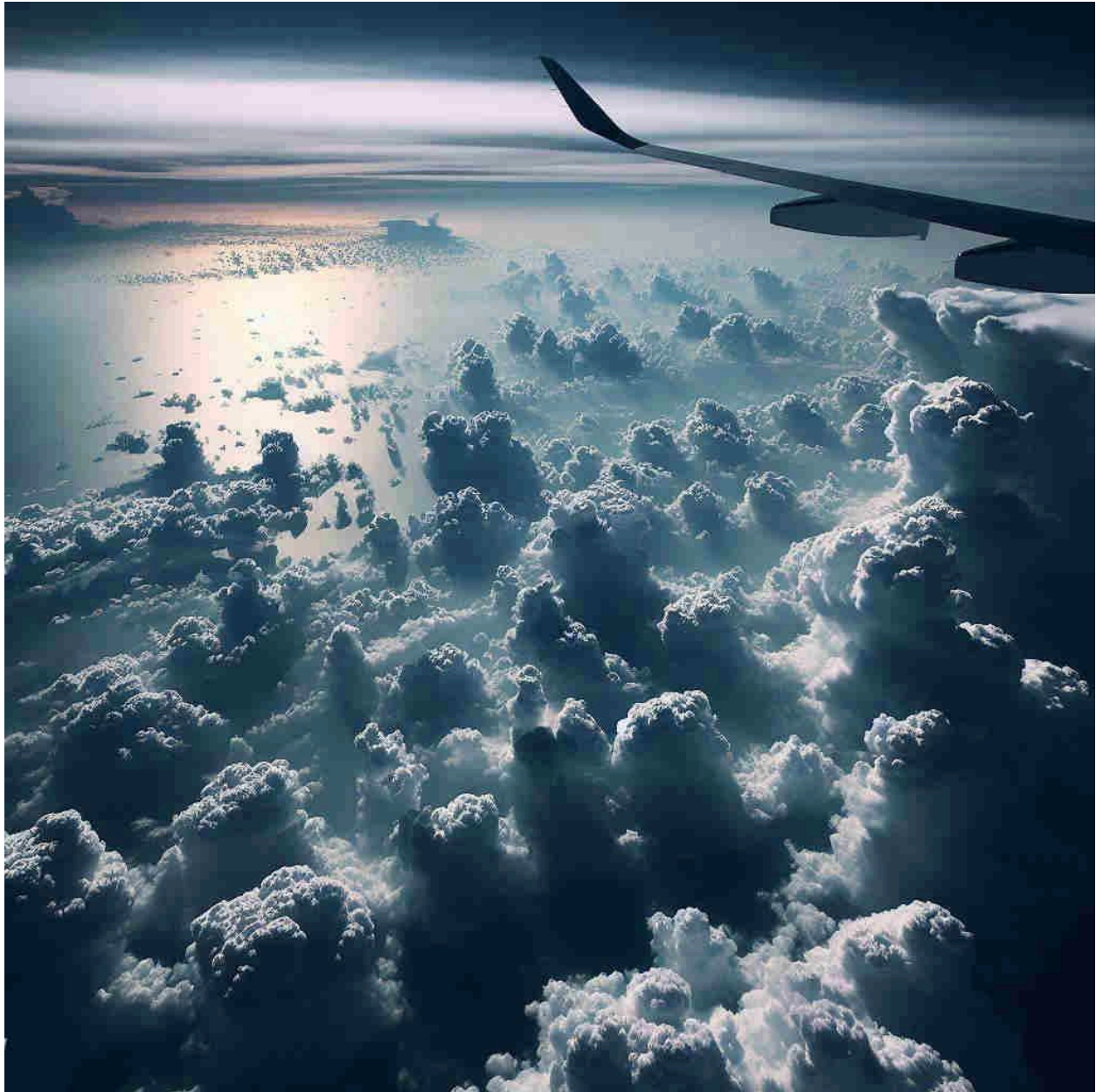


Fig 16. Clouds from above.

World of Goo.

You may have played the famous game “world of goo” on your pc or on your smartphone. And as the story goes there's a race between goo balls and ‘world goo corporation’ and building a tower and finding z dimension in the 2D world. In this [chaos](#) of goo story, ultimately, they reach the far away planet to populate it with more goo. And it seems sarcastic to think that we are represented with these goo balls, which we help to navigate rivers and build towers with.

And it was shown that if all the seven billion people on our planet were put together into a giant goo ball it would expand over just under one kilometer in diameter. And putting it into perspective we can keep the human goo ball in the middle of the central park in [New york](#) and it will be expanding only 100 meters beyond either side of the width of the park. Compare it to the immense size of our planet and see how insignificant we are on our own planet just in comparison of size.

[Central perk and friends \(1994-2004\)](#) remind us stories about happiness and sadness, and above all changes in time. We have seen the cast over the years, getting older with us ultimately up to the last episode ending the generations of laughter it brought. But, it is difficult to observe something change over time and learn insights from it as it can be misleading. We cannot wait generations to solve our problems, we shouldnt drag our problems so long as we only have a few decades of time.



Fig 17. Giant Goo ball in central park

Time beyond definitions.

More Scientific views on time.

Let's go back to the question.

What is time?

We are in the era of advanced science. We should be able to answer a simple question as above. However, we fail miserably. Is [science](#) wrong? That's why we fail? Answers to the question of time should lead us there.

Let's analyze the definition from physicists.

“Time is a physical quantity that measures the interval over which a change occurs. Time is related to [change](#). It has no direction (is it linear or not ?). It's only a magnitude, hence a scalar quantity.”

If we expand on this definition, we can establish our current understanding on time. So, basically the science says, if you measure the interval between two events. That is what the time is. So, time is the measurement. If you look at the clock at the beginning of your reading, and deduct that from the clock's reading now, that is time.

So, what is the tool which we use to measure this change?

Time can be measured in milliseconds, seconds, minutes, hours, years, light years. And it is a [spectrum](#), from unmeasurably small to unmeasurably large. Then how have we standardized our measurements?

“One second is the time that elapses during 9,192,631,770 (or 9.192631770×10^9 in decimal form) cycles of the radiation produced by the transition between two levels of the cesium-133 atom”

The measure of time 'second' is defined by a physical change in nature. So the measurement tool itself is not absolute. It depends on an event that is observed. There is a caveat. We tend to forget the observer when we define a second. It's time to correct ourselves if one needs to understand, hence the following edited version.

The second is 'time the observer feels', during 9,192,631,770 (or 9.192631770×10^9 in decimal form) cycles of the radiation produced by the transition between two levels of the cesium-133 atom.

Now that is strange, isn't it? Of course it doesn't look scientific when put that way. But we can't blame scientists. After all, anything which has significant bias is eliminated in science and handed over to philosophy over and over again.

It all depends on how the observer feels. So, there is a flaw in definition, when it comes back to the [observer](#).

Let's think there are two observers, and would they feel one second the same? Definitely not! As many observers there are, for each one of them, a second would feel different.

If paraphrased above definition, **time is a feeling between two events for an individual observer, him, her, or itself.**

Now we can look back at some of the above questions with this new definition and see if we can answer or explain some of these. It may not be perfect yet. But we can say, it is absolutely true when you say 'I didn't feel the time passing so quickly when you are with me'. Or when you feel time slows down on your vacation to the top of the [Matterhorn mountain peak](#) last year. But that truth is only relative to you. All the others will not agree, because time is relative, not absolute. Yet relative differences exist and nobody can argue otherwise. Because time is observer dependent even by the definition of scientists.(although it was knowingly eliminated from the definition)

Bolt in his World record run.

Let's take another example. Imagine there are thousands of people watching a 100 meter dash in the Olympics. Lets go back to 2009 world championship stadium in Berlin and you are one spectator in the audience. Each individual watching this event will agree that the olympic gold medalist runner Usain Bolt, took exactly calculated time (9.58s) to finish his race. We all agree that is [the exact time](#) he has taken to run his 100 meter dash. But we can never know how each individual observer felt about this time. It is unique for each and everyone. If we had no prior agreement on second, nobody will know whether he is faster than last year or not. Still we would make winners as we can clearly 'see' he finished first. But unless we measured time with modern equipment we would never know. We are in agreement that Usain Bolt is the fastest 100m runner in the world because they measured time. It is like we have a running competition among all 7 billion people and found out he is the best, we are in agreement on this. It would be labeled insane to argue otherwise.

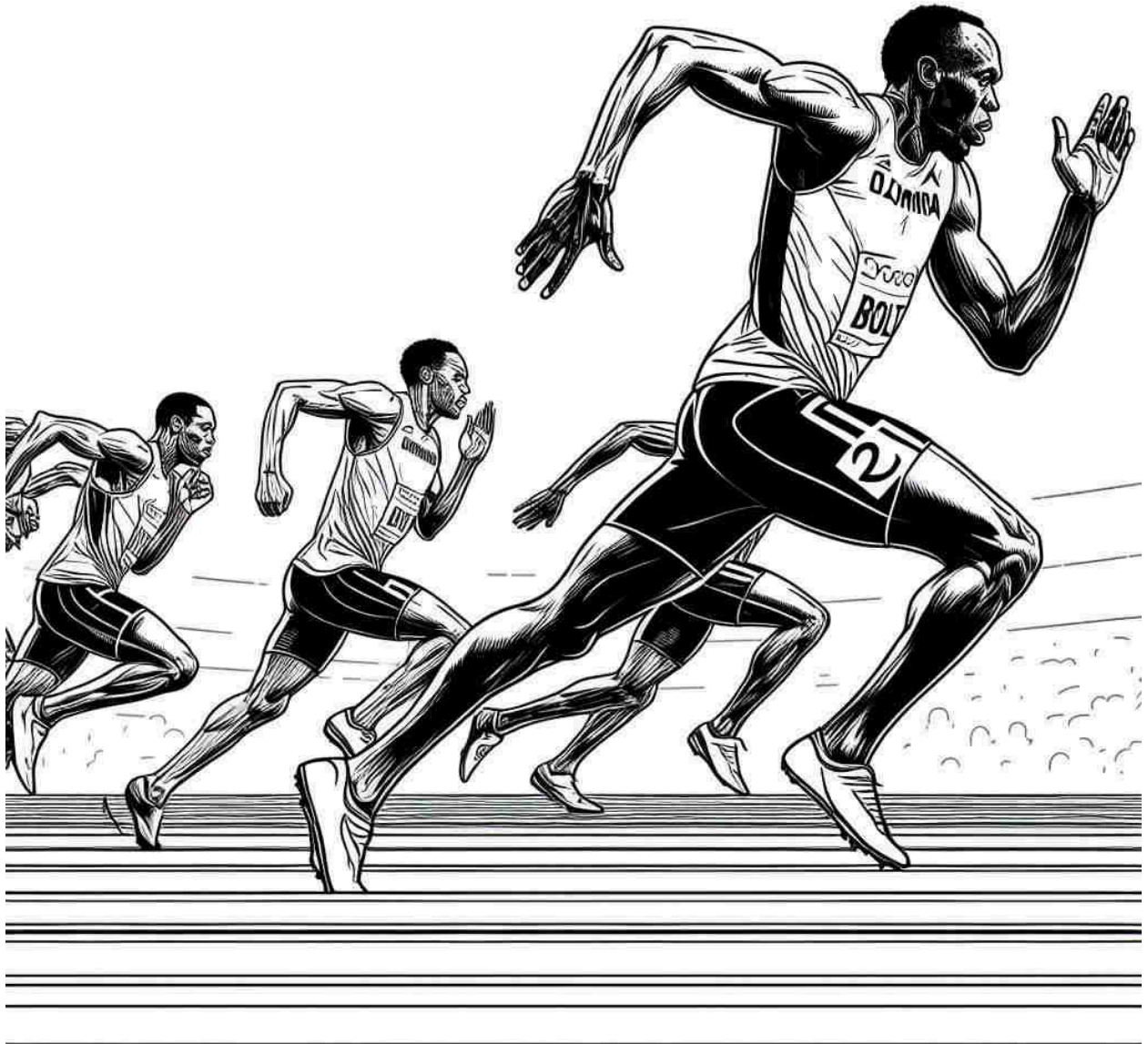


Fig 18. Bolt on the run

More bizarre if each individual had defined a second for himself (inward out - which will be explained later) according to his feelings , Bolt can be faster for one and less faster for the other. There are a thousand observed speeds for the same individual, for the same exact event, observed by a thousand people. If we forget the artificial scientific barrier of defined second and time, this becomes a truth that we cannot say wrong. Let's imagine nobody measured the time. And all we had was our own

observations without any watch to compare it with. Now, let's imagine two people attending both of Usain Bolt's world record events. And if they argue about both events, one would say he was faster than last year, and the other one would or would not be in agreement. And there would be no way of knowing it. And if the time measurement was not invented nobody would know who is correct.

Now imagine someone else ran the same 100m at the same speed as Usain bolt. With current measuring devices we would say both Bolt and the other hypothetical guy have run the race at the same speed. However that is truly not correct as we are unable to measure beyond some fractions of seconds, obviously there should be a faster person. It seems that there would be errors in measuring time no matter how sensitive our measuring devices are. Still there are depths which we cannot reach.

Outward in or inward out- ways to define time.

It is not obvious at first. For some it would be difficult to grasp. For a better understanding we have to revisit the definition of time again. We will stick to the better version of the above definition which we made early in this chapter.

Time is a feeling between two events for an individual observer, him , her or itself.

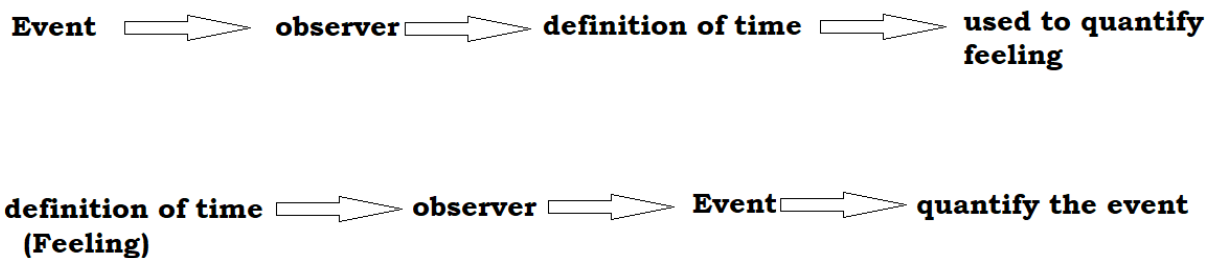


Fig 19. Definition of time.

In the Land of Happiness quantifiers.

When defining a second, the event observed is a natural event as discussed in earlier chapters. So when defining time, the science forces us to observe a natural event which happens outside world, and then make all of us agree that time that we felt passing observing that event is a second for every one of us.(outward in) So we are forced to quantify our feeling of time according to an observed event. But the [simple truth](#) is we don't have to.

If someone asked how happy you felt when you knew you passed the exam, or the interview, or the promotion, you might express yourself. “ I was very happy, enormously, Amazing, like flying” etc. But nobody would quantify happiness like” I was 100 degrees happy, 500 degrees happy or 50000 degrees happy”.Or we could quantify our happiness by the angle of our mouth, or the dopamine level we produce. Imagine a society where happiness (which is a feeling) is quantified. We would feel alien, to live among the ‘happiness quantifiers’. If happiness is a [currency](#) in that world, definitely it would make sense. It would make perfect sense to pay an extra large smile, for a morning cup of coffee, in this hypothetical world.

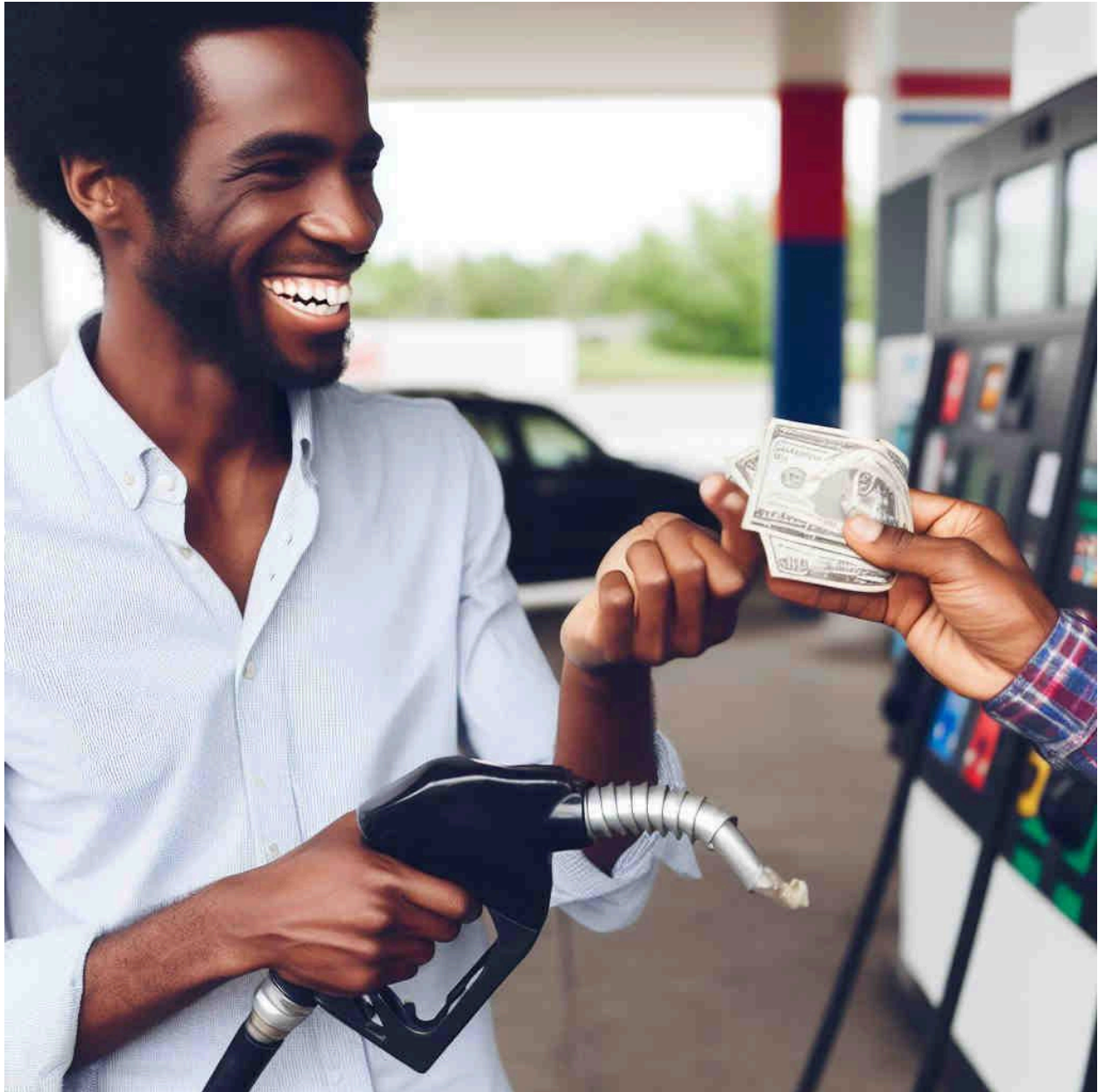


Fig 20. Happiness quantifiers

Yet here we are quantifying our time, by looking at an external event and using it to quantify a feeling in our mind. It sounds bizarre to think in this manner as we are so used to thinking about time as it is now. For generations we were following our clocks. So, much so, time has become a form of currency in this world. We are paid according to our time, in most jobs. But the truth is we should be paid for the amount of work we

do (which is harder to quantify than time), rather than the time we spend doing it. Otherwise we will be paying two people the same amount when the work that they do is not similar. If a 'happiness quantifier' came to our world and looked at us paid for our time, he would argue that we are mad at ourselves for making such a silly mistake. But we can explain ourselves that work is more difficult to measure, in most jobs as it is more complex than the ticking of a clock.

Nobody can quantify our feelings. A 'Second' that I feel may be twice as big as someone else, (although this can never be known as there is no universal measure for our feelings), and the second that a [child feels](#) may be longer than that of an adult. It can change over during the day, seasons of the year and age of your child. It can change according to the events that happened during the day, as time is a feeling, anything affects feeling can affect individuals time. We all have experienced rapid and slow passage of time, and the truth is we can never be sure whether 'an hour' we have passed since we were born feels the same or not, yet we agree by the clock, it is.

In the land of Quantifiers

We are in the land of quantifiers they shouted,
We measure our distances, we measure our weight,
We measure our time and we measure our speeds,
We measure our heat and we measure our energies.
And when we get together we talk about our measurements.
We talk about the speed of our cars
We chat about the calories we eat
We argue about the wages we are payed
We fight about the boundaries and land
We laugh about pink and white dresses
And we teach our children to measure on their own.
That's all what we do.

All these arguments or assumptions do not give a conclusion that current concepts of time are absurd or wrong. Which obviously is not. It is a very good tool

when interacting with others. When communicating and functioning. Obviously, no need to explain the advantages.

Current definitions of time have created opportunities for great nations to [conquer](#) the skies, to land on the moon and attempt on [Mars](#) in the race to space, dig into the past and imagine how long it took a rusty old pot from ancient [Rome](#) to come into pieces and be buried in the sand.

Time has created opportunities for an individual to auction an ancient painted [vase from China](#), and a buyer to feel an unquantified amount of happiness and pride in buying it paying [millions of dollars](#), in front of admirers and haters. Quantified time has created collectors of stamps, paintings, even glass bottles and toy items. All this is possible because we all agree about definitions of time. There would be no historians, no museums if not for measuring time. [Travelers](#) have an opportunity to visit Pompe and admire ancient monuments from the buried world. Time has given opportunities for grandfathers to tell great stories about war and crimes, and love to their grandchildren.

Similarly time has brought misery into some lives. Time has allowed us to calculate and fire accurate [missiles](#) in modern warfare more than ever, and bring destruction to ourselves and our own planet. A patient with cancer learns that he has 'three months left' to be with his loved ones before death. Because we have quantified our time he would project this into his future and [suffer](#) thinking about it. His family will gather and mourn around him. It will give an illusion that he has less time to live in this world, yet is it true? Where are those three months that he can live? Where is it today? How can we know that the future exists if we cannot access it now? How can we know the cat is dead or alive if we are not allowed to [open the box](#)? Where is tomorrow?

But as an individual, to understand the world sticking into these definitions is somewhat counter-productive.



Fig 21. An antique vase from China

Now we can try to answer why when you were a child time was slower, and time was slower when there was a death in your family. Why did time slow down when you were at the [beach](#), and it ran so fast during the last exam paper? The simple answer so far is that time is a feeling of an individual observer, so there are differences between these feelings.

Let's analyze more, into our definition and try to find out more truths about time. Or is this only as far as we can go?

Time is a feeling between two events for an individual observer, him, her, or itself.

It is understood that the time has been there even before clocks were made, seconds were defined and light years were made aware, as a thought in someone's mind, but relative to each individual who feels it. Cavemen felt it, hunter gatherers felt it, ancient civilisation felt it and made their own methods to explain it, because as humans we like to know and express what we feel we started to quantify it. So, here we are today confused by all our theories and [knowledge](#) of generations, masking what our ancestors felt, and we feel, about time. Time won't be there in a system where there is no life. Time will exist for you as long as you are. Time is a feeling in our own minds, it exists because of us. Or is it true?



Fig 22. Time was there before clocks.

What is an event?

What is an event?, someone might ask. It's time to find out mysteries in our events. Let's imagine you went to visit a football match between England and France, the last world cup. And when you had been there from the beginning of the match till the end. After that you would tell the story to your friend who unfortunately could not attend

with you the events of the day. You would start by saying “I was there at the beginning of the match until the end of it. I saw the great free kick landing on the net. Beckham was in his spirits today”. And your friend would agree and nod, he will share your story and make a version of it for himself. He will watch the match and get excited.

But what is exactly meant by the beginning of the match. Is it when the players enter the field? Is it the national anthem? Is it the whistle of the referee? If it is the whistle, then is it the start of the whistle or end of the whistle.

Imagine you have abilities of the [Quicksilver \(Marvel comics\)](#) to slow down the time or be fast enough and see what is going on at the “beginning”, you will see there are several things start to happen, the referee takes his whistle into his mouth and he takes a deep breath and blows, the first wave of air hits the whistle flaps and they start vibrating and produce a [sound wave](#), which start to travel in wave motion through the air and hits on ears of two players of the team at the middle, each one at slightly different time. They are processing information at their own speed and start kicking the ball. And the light of this happening reaches back of your eyes and you start processing it.

Now, back to our own time and speed, What really is the beginning of the game? Is it the start of the blowing of the whistle or the end, or when it hits the ears of the players, or when they understand the whistle is blown? Is it the first kick of the ball? Is it the foot raised from the ground or point of impact of the ball, or is it the processing of all this in your mind?

So, you will now have so many beginnings to the football match. And whatever you have told your friend has no meaning, or validity as an absolute, but still conveys ideas and stories. If you look at every event that is happening all around you we will notice it is true for everything. There is a lot more going on than what we really process. We still have old windows 96 in our system, even our [cameras](#) have faster shutter speeds than our eyes.

Next time when you start your [story](#) telling chit chat with your best friend notice how you are lying from the beginning of the story! You would say ‘ I started walking out of the hotel room into the beach’ and notice there is no exact starting point to point out. Still you would make a successful communication, but this time with some better wisdom. And there is nothing called a true story. As we discussed earlier we are limited by our language and the processing speed of our machine.

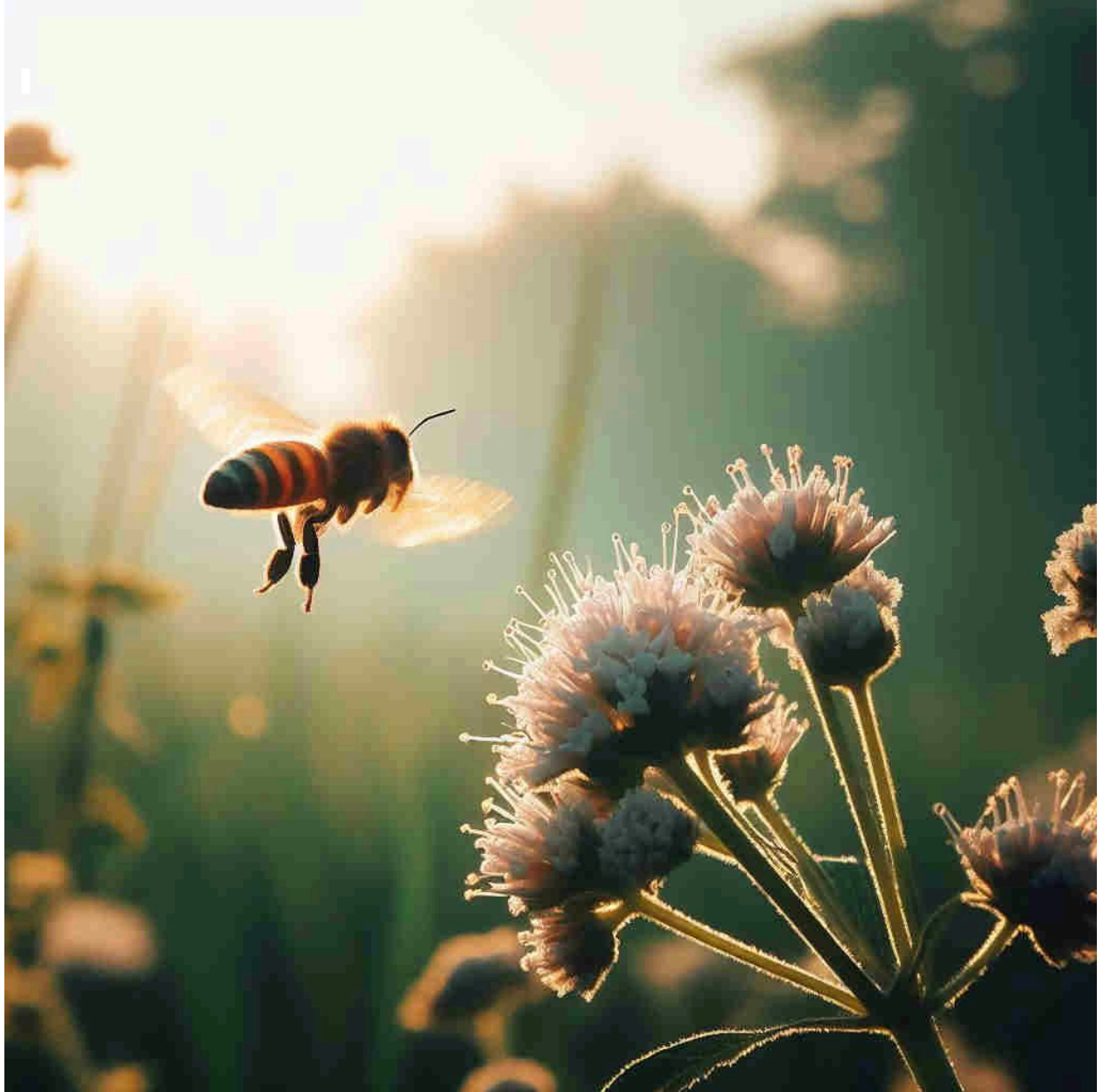


Fig 23. Bee and the flower.

From the past to the present, time is a journey.

Let's ask again.

What is time?

I would invite you to take a short journey from the past to the now.

Time for the caveman

He woke up in the morning to the sound of birds and saw the sun had lit up the world. He felt hungry from last night's meal that he shared with his family. He got his spear from the corner and went out to hide in the jungle to find his next meal, extra he could bring back to the cave. It's a struggle in the jungle, how much it is explored. It's a struggle against [nature's](#) deadliest attacks on bare skin. Hardly any weapon in hand, he should survive, against all odds. It may be a [snake](#), a poisonous fruit, a leopard or a sharp thorn and an [infected wound](#) can become his killer.

However, today he is lucky. He found a bird's nest to harvest some eggs and berries enough to feed his hungry kids. He sets back to the cave. Early! And he knows he is early. His children's happy he is back early. His woman is happy he is back so early. But they knew nothing about hours, days, minutes or their definition. Still there was a sense of time in its pure form. Nobody wanted to quantify it. Time existed in its pure form in his mind just as a feeling.



Fig 24. Cave painting.

What is time for the farmers who lived egypt?

In ancient Egypt farmers around the Nile river basin had farmed over many years. They knew it is time to sow fields after the rains have drenched their lands and made them fertile after [floods](#). They had time to protect their crops from animals, and knew it's time for harvest once the crops were golden in color glistening in desert sun and wind. When it's time to visit markets in great pyramid cities to sell extra crops and buy jewelry for wives and daughters. Time existed as sun and moon, as day and night and greatest floods and dreadful draughts, as an image between memories of events in each individuals' mind even in great great egypt.



Fig 25. Egypt farmer

Time for the British plantation owner.

Away from home, friends and family in a foreign land looking for new [gold](#), a young Englishman wakes up early in the morning. He is the boss, the sole owner of hundreds of acres of plantation, maybe its tea, maybe its coffee, maybe its [rubber](#). His ambitions to be rich have driven him to the land of the unknown, he is awaiting a great future ahead for a family reunion years ahead, yet his days pass among native speaking

men and women who are devoted to work in his empire, he lives in his bungalow castle like a [local king](#). Time exists for him as the era before the voyage, era after the voyage and era back at home.

Time exists for the tea pluckers who work in his land. Time before tea plantation, time with tea plantation, and time for their children to start their lives with tea plantation.



Fig 26. Tea plucker

Time for the modern man

Time exists for the modern man, waking up in a flat in [manhattan](#). He looks at the alarm which still makes a loud noise, with tiredness which has eaten him during the whole week he rolled over to turn it off, and continued to sleep until sun spread out in his compartment. As it is Saturday, no rush. Until he is hungry enough, as his hunger is grown enough to overtake the resistance to get up from bed. Time exists as money, as opportunities, as vacation and as hope.

Time is so much overpowered over this [man](#) that he is totally devoted to trying to make best use of it. Everyone advised him on saving time, making maximum use of time, from his school through his university up to his current manager who supervises him gave advice to make his time most efficient. Time management chart, prioritization, unending contests between employers against each other in pursuit of success and happiness, a battle in the concrete jungle in its most naked form.

Yet, he had forgotten the wisdom of the time, as it was to the caveman. He is lost in a world counting seconds and minutes and hours. He doesn't have a minute to think about time.



Fig 27. Manhattan

How does time exist for you?
How do you know yesterday lasted?
Where is it now?
How do you know tomorrow will occur?
Where is it now?
And more importantly how sure are you about it?
Is it a guess? Or another gamble?

Linear nature of time.

London skies, where there are more airplanes than [buses on roads](#).

I was sitting on a park bench in south london, looking at the skies. Noticed an airplane running over my head, above the clouds making a shadow on clouds, took a sharp turn at the edge of the cloud and toward horizon, progressively lowering itself towards the airport and vanished from sight after [flying](#) into a faint shadow above low lying [tree tops](#). Before it disappeared, I noticed another airplane, joining its path coming from the north from the far corner of the sky. Before it disappeared, another plane followed, one by one each following its path there were many each minute passing by. It seems that Gatwick is a busy airport over the weekend. It's a three day holiday and people are traveling. Even the [skies](#) are busy !



Fig 28. Even the skies are busy

It brought back memories from my past. When I was a little boy, I used to play with my brother in a nearby playground. Among many games we used to play there was one in particular. We used to catch [leaves](#) which fall down from nearby trees into the playground. It usually happens prior to a rain, when clouds are roaring up, winds blow, signs of a typical monsoon rain, all the other kids who play on the ground have gone home leaving the whole ground to us (we were living closest to the ground !). The old

leaves of different sizes and shapes from tall trees start to fall one by one loosened from the gales. We jump here and there trying to catch these leaves, which is of course very difficult as it is very [unpredictable](#) to follow their path before they hit the ground. It was very challenging and exciting, as kids jumping here and there following a leaf is all that was needed to bring happiness and smiles. Since when has life become so complicated?



Fig 29. Since when has life become complicated?

This brings back to the question of linearity of the time. If we describe events of the 'leaf catching [game](#)' according to time someone would say, at time (event 0) the leaf got separated from the tree, and it traveled through air x amount of time until it landed on the ground (event 1)or caught by the kid (which is myself and my brother). It gives a good picture of what happened, we can use it to describe it or write it down. But if we look at the time line there are a lot of seconds that we do not describe. And we can say something happened to the leaf at each and every second, and it did, otherwise it will never land on the ground.

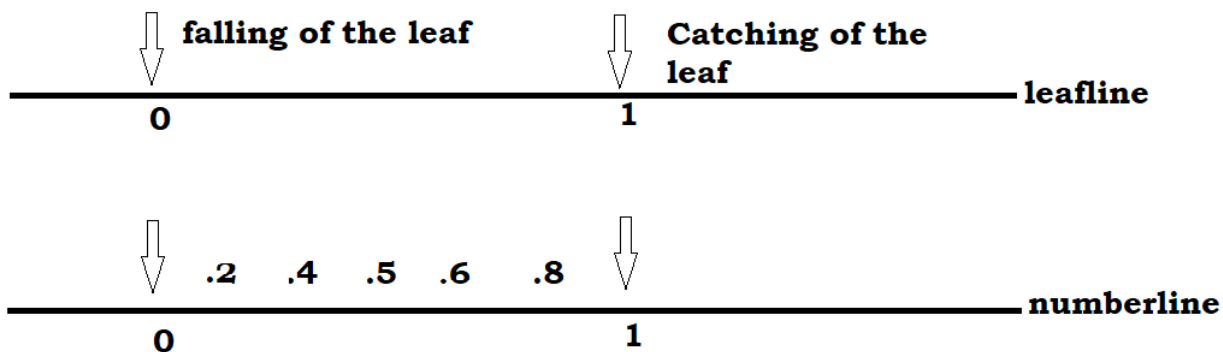


Fig 30. Leafline and numberline

If we compare this to a number line, as you can see there are many other numbers between 0 and 1, an infinite amount of [numbers](#). So, there should be an infinite amount of time intervals between events 0 and 1. If there is an idealist who wants to describe an event he should describe an [infinite](#) amount of information which happened over an infinite amount of time intervals. Which is impossible as we see (it will take an infinite amount of time to describe what happened in half a second), so whatever the descriptions we make about events which happened over time is fundamentally not the absolute truth. Its relative, its useful, it is necessary but it is not absolute truth because the leaf from the tree detached at time 0 and landed at time 1 are just two fixed points in a continuum. Is it a continuum?

This gives us another **perspective** to explain. Let's imagine me and my brother observing the same leaf detached from the tree at time 0 (event 0). Until it lands on the ground at time x (event 1) there are an infinite amount of observations about the leaf which could be made by an observer. However I only made y amount of observations (which takes k time) and my brother made z amount of observations (which takes l time). If there is a finite amount of time my brain takes to make an observation and if $y > z$ does that mean i have felt time passed more slowly than my brother? Does that mean time which we feel is dependent on the number of observations we make? And what does my brain do all the rest of the time, which is not observing. $(x - k)$. Did the time exist during that period of time?

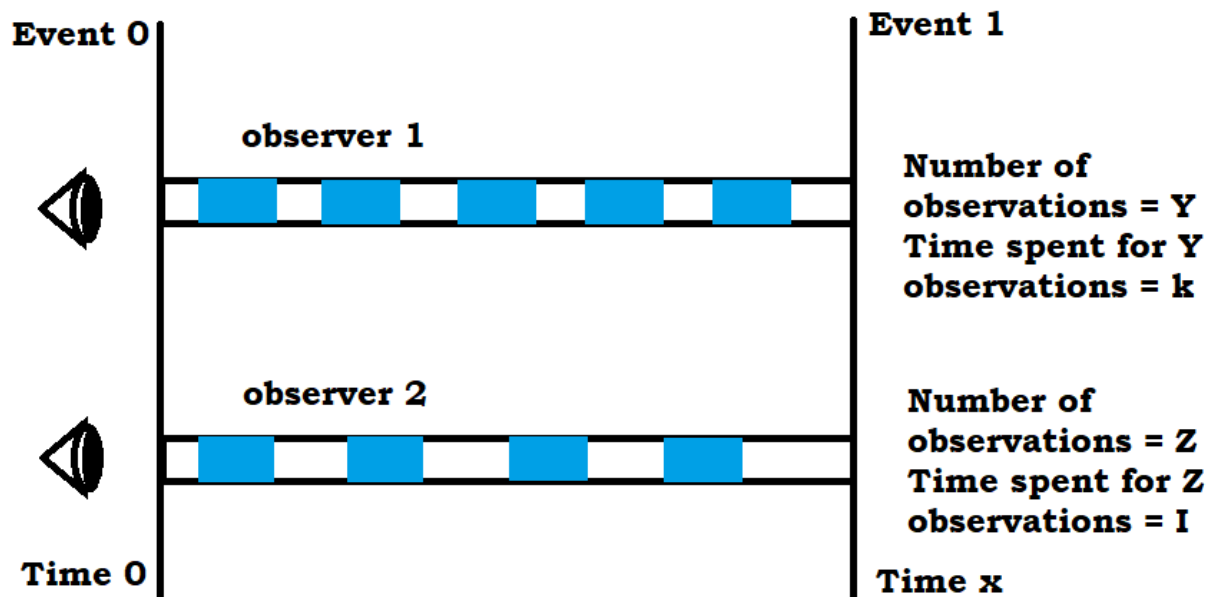


Fig 31. Leaflines for two observers

Time is created in mind as a side effect of comparing two events in mind, in now.

If the above is true, the more events we observe between two fixed events the more time (gaps) there will be. That can partially explain why children (who are good observers) will have more time than adults who do everything that has become routine rather than [novelty](#). There are less and less fixed events in our days when we get older as we hardly pay attention to everyday occurrences around us. And it will explain why a traveler feels he has long fulfilled life as he has created opportunities to become more observant in what is happening in the world by traveling and its novelty creating more and more observations per day. But his grandfather in the garden doing some gardening creates the same number of new observations about his fresh [vegetable](#) plot and feels fulfilled about his day. Who can argue which is better. Either is relative.



Fig 32. Grandpa in the Garden.

If you look at your life, when you describe your life to someone else. You will notice that we do the same. We describe fixed events from our life to give a [picture of](#) what happened. Which is never the truth. There is no system to exactly record all the events accurately and there never will be a perfect such system as infinity is unachievable. Although we feel time is continuous when we carefully examine time, we see it's just a feeling, we never feel a continuum, to experience time we have to jump

from event to event, describe each event then the illusion of continuous time creates in our minds. The truth is we would never know whether it is a continuum, in the first place we are the [creators](#) of time. So if it is not continuous for us should it be not?

Looking at the falling leaf simile, we can try to describe what is happening in the mind. When we get thoughts as the day unravels, jumping from one thought to the other, is the only way we can understand what is happening. We can never understand thoughts as a linear continuum. (Actually there is only a finite amount of thoughts happening during one day, and scientists estimate this number to be around 6200, it may be bigger or smaller but the fact remains it is finite) It is impossible because there would be an infinite amount of information necessary to describe each day otherwise. Only way to understand it is to jump from one thought to another. Just like describing a falling leaf. But that is not the truth. That is not the true picture of what happens. We can never know what truly happens when a thought is processed in the brain. Fundamentally it is relatively true when we say we think, one thought and another. It is not absolute truth because that is not what happened exactly. It should be continuum but understood as fixed frames.

Sleeping, it's time to disappear?

Time is created in mind as a side effect of comparing two events in mind, in now. Hence time does not exist unless in the mind of an observer which is you! As nobody can observe on behalf of anyone else, time is an independent relative truth to each one of us.

What if the observer is asleep?

Let's imagine the modern manhattan man. He started to observe time since he woke up Saturday morning. Just at the moment he woke up and noticed he was, his mind started to compare the events of last night. Then he knew, he lived across Y hours of time. Feelings of time started to bombard his day and continued to stress him. However during the sleep was there time? There are two perspectives.

To another observer secretly observing him in sleep, yes time did exist. However to the manhattan man in his perspective time did not exist, as he was not making any meaningful observations, his mind was not [conscious](#). He would look at the clock and

say “Ah! I slept Ten hours”. But he knew exactly that it's just that he slept and he woke up. There was no ten hour ‘feeling’ in it. It was only two events which were only a few seconds from each other as his [consciousness](#) was taking a break. But he compares whatever the gap, which is shown in the clock. Compare it with past experience of how it felt when he was ‘continuously’ aware and thinking for ten hours. And think “Ah, I have slept this many hours”. But the truth is if he is brutally honest with himself like a child, there was no time during true sleep.



Fig 33. Dream, it's time to disappear.

A deep dive into science

Shrodinger's cat experiment and quantum physics.

In 1935 Erwin Shrodinger, an Austrian physicist, conducted a thought experiment. He placed a cat in a hypothetical box with a radioactive source which decays over time at any point and releases a poison killing the cat. However the box is closed and there is no way of knowing when the radioactive material is going to release the poison. The conclusion is after some time the cat is both alive and dead until someone opens the box and makes the observation. Quantum physics has helped us to understand why particles behave [as waves and waves](#) behave as particles. It has opened up another dimension to our scientific expansion of our knowledge. We will hear more and more of quantum computers, quantum chemistry and superconductors and great applications of this knowledge. However has it provided us an opportunity to understand ourselves?

What does this have to do with our time? Is it true that time exists and does not exist at the same time? Time exists when we start thinking, or being conscious of our surroundings. It ceases to exist when we are unconscious?. Does it explain some of our questions earlier in this book?



Fig 34. A cat in the box

Are your cats dead or alive?

We all have cats. Have you ever noticed? Let's imagine there is a mother, who has sent his son to the war as a soldier. He is away in a foreign land fighting war in the front line. And he dies wounded among many others. The news arrives to his mother and family only three days later. And since the news, to that person hearing it he was [dead](#).

But what about those three days? He would be still living in the mind. Yet to an outside observer of both events he is [dead](#). However what matters for one individual is his or her own perspective. In this case to the mother her son is living all these three days, or even longer until news reaches and she understands. Her son is dead and alive all the time, even before three days, until someone observes what has happened.

The true fact is you don't have to be in [war](#). Think about a loved one who is not there with you at this moment. Think that is your cat, now living in a box with radioactive material. Do you know that moment that they left from your vision, the moment you stopped hearing from them that they become a cat in the box, until they come to vision again? Did you know that they are both dead and alive at this exact second? How can you be so sure that they are alive? How can you be so sure that each and every time you open the box that they will be there smiling at you? Think about yourself. If it is true for someone else. It should be true for yourself. If so you are dead and alive at the same time for everyone else. How can you be sure they are wrong?

If you [walk in a forest](#) path on a normal day you would see a lot of dead leaves on the path. However if you take a walk after a strong gale there would be more and more leaves, some brown, some yellow, some green fresh leaves. When the radioactive decay occurs, even fresh leaves have to fall. You would not be surprised if you know there can be a gale in our lives at any point. Even now we are just waiting for our radioactive material to decay in our box of vision.

Friedrich Nietzsche and his insights

Well known German [philosopher](#) and composer, who was once considered insane when he was not, died of insanity and mental illness, has given some insights which brighten our understanding of the unknown even today. Born in 1844 until his death in 1900 he has made several controversial publications of the era, however, have led to rejection from major universities being too harsh on acceptable cultural and religious norms of the era. Lets try to keep our sanity preserved while learning similarities from his perspectivism and other teachings. However, it is a fact that even though his insights about life were revolutionary it seems as the story goes he could not win the war against happiness, sickness and death in the end. He believed living in

[isolation](#) would help us to understand ourselves. He believed that being alone will help to take us away from our cultural prejudices which are decided by our birth which we did not have a choice over, to calm down ourselves.



Fig 35. Solo traveler.

Perspectivism vs relativism.

In perspectivism which was brought forward by Friedrich Nietzsche argues that the [values we observe](#) in an event are always bound and blinded by the perspective of the observer. It is often confused with relativism which states the values we observe in one domain are always relative to another. What is the confusion?

If it was simplified, if perspectivism is true, there is truth out there, the problem is nobody has access to it.

But in relativism, there is no absolute truth as everything is relative to each other. However one major argument against relativism is that it inherently refutes itself by the statement "all is relative".

1. If "all truth is relative" is a relative statement, then it does not rule out absolute truth.
2. If "all is relative" is an absolute truth, then that itself is an example of the statement being wrong.

How can we get over this puzzle? It seems that this question cannot be answered by argument. We will be stuck at the same loop, when we try. There seems no way out. But you would ask, what is the point of thinking about cracking this? What am I getting by thinking about relativism, of relativism without which I have been alright my whole life?

Let us go back to our birth. I am yet to meet a man or a woman or an animal, who came to this world by their choice. I can barely even remember what happened, in the first few years of my life. What about you? Did you come to this world by your choice? Did you choose your country, your religion, your gender?

Let us think about [death](#). I am yet to meet a person who knows exactly when their death happens, at least a few days ahead. We all agree that we do not know when our radioactivity is going to decay. Can you choose when you are going to die, with what disease, in what circumstances, at what time?

Yet, we believe that we can control our day and time to bring an outcome we desire. And that idea comes from a man, who doesn't even know why they come to the being and when they are going to leave. So, I suggest, it is an utmost important and urgent task than any other (important) work that we are currently doing to find out the [truth about life](#).

So let's suggest that "all truth is relative" is an absolute truth and, let's apply it to all the truths that we know of to reduce the value in it, until [wisdom](#) strengthens itself. When it is an absolute truth it is true that the statement is wrong. And that seems to be a problem in the language. The statement itself stands. **If the truth about relativism is relative, there cannot be a truth about the statement 'relativism is true', hence it proves relativism is true.** And that is the only true thing in the world. We cannot access any truth out there because of our perspective, hence there may or may not be a real truth, and we will never know, because we have no means to open the box without being an observer and having our own perspective to it.

Let's revisit some absolute truths as we understand and drive us.

Story of colors.

Story of speeds.

Story of time

And,

Story of space

Story of [evolution](#)

Story of science

Story of story itself.

We have already seen the relative nature of truths about time. In detail. It would have been difficult to grasp at first, but if you re-read, it might make sense now. Let's apply the absolute truth about relative truth, to some other common examples.

Story of colors.

Colors are wonderful. Think about a black and white world. Our world is more interesting with colors. [Chinese lanterns](#), wine glasses, if you ask someone from the fashion industry, from a devil who wears a prada, or if you start drawing with **Bob Ross** you would know names of these colors which you have never had an idea about.

It is said that the colors we see, and remember are dependent on our language. It is shown that some ancient languages have only limited names of colors and, sometimes they can only identify a few colors, like green and red. If they were shown a blue color, they would categorize it as a green. Of course if you look at how colors are

represented in digital world you would [notice the RGB](#) (red blue green) values from 0-255 from each of these separate colors can be combined to make thousands of colors which even have no names , and even impossible to name them if we use a much more bigger spectrum. We will run out of words in English to name every color. So, if you talk about a color, it is a relative, when you say something is red, as wine, or pink as a rose.

Similarly there are some other examples that can be given to understand the relative nature of something simple as color, of a flower. Let's imagine you are looking at a sunflower, which is of course yellow in color as we all agree. Let's say you are looking at the flower through blue glasses. And you would see a green [flower](#) instead, and this is true for color [blind persons](#), although the population of color blinders is far less and negligible that is enough to say the sunflower is not yellow for everyone. It is only the conclusion of the majority of us. Science has shown that birds see colors differently. Hence, they can see colors which we cannot see. All these are examples to understand relative truths about colors.



Fig 36. Sunflowers

Story about speed.

Relative nature of speed can be deduced by a simple equation we learned about.

$$\text{Speed} = \text{Distance} / \text{time}$$

As we already discussed, time is relative. Speed itself is relative. But what about distance? Let's say you are living x distance away from your home. Or imagine the eiffel

tower is x meters high. In these distance measures , what we are essentially doing is comparing the eiffel tower, or distance from your home to your place against some fixed pre,defined measure, which is the meter. And that is arbitrary. There is no scientific basis for someone to call a meter, as a meter is defined.

However, if the majority of us disagree about the definition of meter, the distance of Eiffel tower will change, as it depends on the measure, or the structure we are measuring it against. 'Height of the eiffel tower ' has no meaning unless it is compared to.

Now, let's forget about every thought experiment we have done so far, and be just blind students who agree with everything the teacher says. Let's imagine our teacher is [Albert Einstein](#). And imagine he is teaching us about this great story about the **special theory of relativity**. And he teaches us about this space time continuum that we have never heard of before.

And he says that there is no absolute speed to any object in motion. To find the speed of an object it should be measured against some other object.

Let's imagine you see a car moving on the road away from you. You would say that the car is moving fast away from me. And your friend will agree. Now imagine there is no road, you are together with your friend in space, and the car is moving away from you. Now you can say we are moving away from the car. And your friend would agree. Now imagine you are with your friend on the [moon](#), and there is the car moving away from you, and there is nothing else in the space. Still you would not understand whether you, yourself and friend are moving away from the car or the car is moving away from you. Either is true. Now imagine more and more planets and you are on earth. Now it is becoming complex. Now we have many items from our side, which are not moving relative to us, and, now magically you would feel like the car is moving away from you and your friend would agree. But if you would say we, and earth, and sun, and moon and every galaxy is moving, rotating, and wheels of the car moving relative to the stationary car, your friend would say you are mad! But you just followed the thoughts of Albert Einstein. And he must be true right? That means your friend is wrong. There is no absolute speed. Hence when you say a car is moving fast, it can be either way. It is hard to imagine. It doesn't mean we have been lying all our lives. It just proves the relative truths that we are blindly following when we are in the world.



Fig 37. Speeding Car

The great Experiment

Newton said an apple fell onto my head.

Einstein said, maybe,

But also maybe you and, your earth and everything in the universe moved relative to the apple, until you hit the [apple](#).

And Shrodinger said, you both are true at the same time.

Friedrich Nietzsche said we will never know, so don't argue about it.

And we are fortunate to be here after these great minds.

Next, Einstein, in this hypothetical classroom, goes on describing the speed of light and, he says if those assumptions are true, there will be dilation of time if the observer is traveling closer to the speed of light. Ultimately there will be a time difference between two observers which is calculated with Lorenz factor, or alpha factor.

Simply, we will believe Einstein and his mathematical abilities. However, the difference in time relative to each other does not exactly say who is older, or who has observed more time, because from earlier as we saw in our car experiment, we are not quite sure who is moving and who is stationary. And this idea is explained in the theory of 'relativity of simultaneity'.

So far we have identified that more and more we dive deep into scientific theorems of speed and light and colors, that it all depends on the relative nature of the observer's perspective.

We will end this painful brain strain, by giving final thoughts on Einstein's space time continuum. Each location of the space time continuum is represented by the location data on x,y,z axis and time s at that specific point. This time we do not need to go beyond that. Now imagine this is real. So this really does mean the clock at your specific point in space has its own relative time. Whenever you are moving from your office to home, the time for you will slow down. And as nobody can occupy, or experience how you experience your time, it will be born with you and die with you, as nobody can occupy your space.

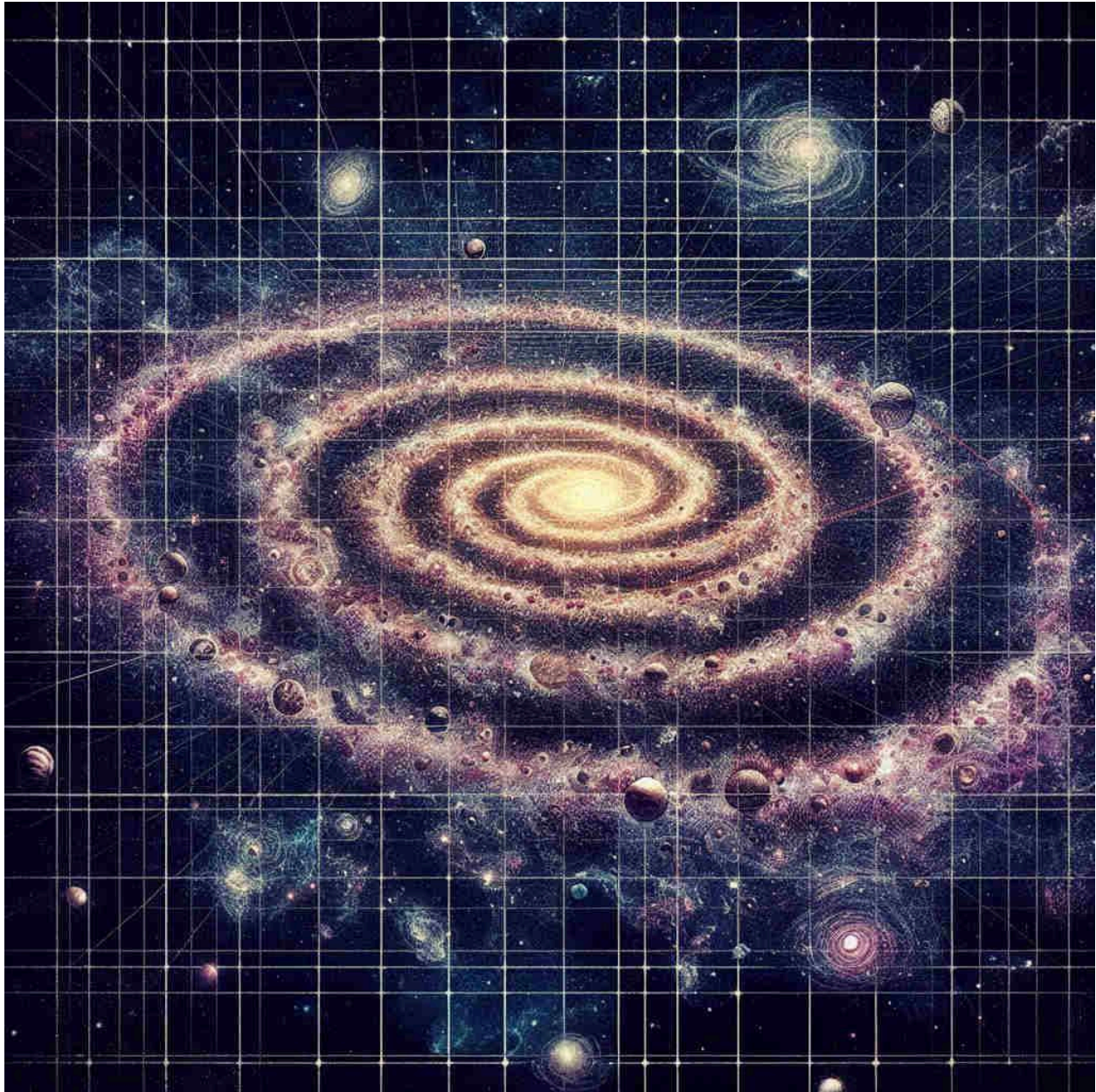


Fig 38. Space time continuum

Story about evolution.

Artificial intelligence and [talking trees](#).

Imagine living with revolutionary AI technology in the years to come, imagine a thousand years into the future. Today we can go to our browser and chat with a [chatbot](#) who will respond to our every question with a humanistic language. We can create art using our words, typed in human form. We can recreate the patterns of **Vincent van Gogh** into our family picture taken last christmas. What if the [AI](#) bots in the future develop their neural networks so sophisticated that they start their own reproduction and develop a [free will](#)? What if they start to feel that they are standing on their own and start to behave as an own species? What if they no longer needed human [factories](#) but they could create new bots on their own as tiny cells which can grow bigger and bigger using common environmental materials? Are we going to deny their existence and label them as computers? Are we not going to treat them differently from a dog who considers having its own free will? Still we would agree their function depends not on their free will but the [natural laws](#) of physics and chemistry. How can we be so sure that we are not under the same rules?

It is time to revisit our children's classroom. When we were younger we used to write [essays](#) about a 'A talking tree'. We imagined ourselves as a tree. We wrote about things we would think from the perspective of a tree. Nowadays it's not uncommon to see magical trees in a sci-fi movie. After all we are so alike, Trees are so similar to animals. Trees grow, trees reproduce, sometimes they exchange genetic material with male and female plants. They adapt, although slowly, some trees hunt, [some trees travel](#). Yet they are considered different from us how? We have a sense of self consciousness.

Imagine a tree without self consciousness. It doesn't know it's living in the 'World', it doesn't know it started as a seed. It doesn't know that it is growing from water and nutrients, it doesn't know it feeds these beings called animals, It doesn't know that there are other [trees](#) which fight for sunlight and rainwater. Imagine your consciousness being inside that tree, you don't have eyes to see the world, you will follow the warmth of the sun, the light, you will try to put your roots deep down in soil to survive harsh droughts. You do not know how you came to be in this world , however you know you can reproduce and make a seed to continue your kind into the future.

Now, how can you be so sure that trees only follow laws of physics without self consciousness?. If you compare AI and the tree both follow the same laws of physics, its arguably trees are so much beyond AI. They can do everything. What if one day one kind of tree starts to develop eyes to see the world and feet to run. You would say it's a crazy tree. What if a herbivorous, or carnivorous plant completely loses its ability to photosynthesize and becomes an obligatory parasite and starts having feet, a neural network and eyes? Would that be an animal or a plant? Are we those crazy trees that developed eyes and ears and feet?

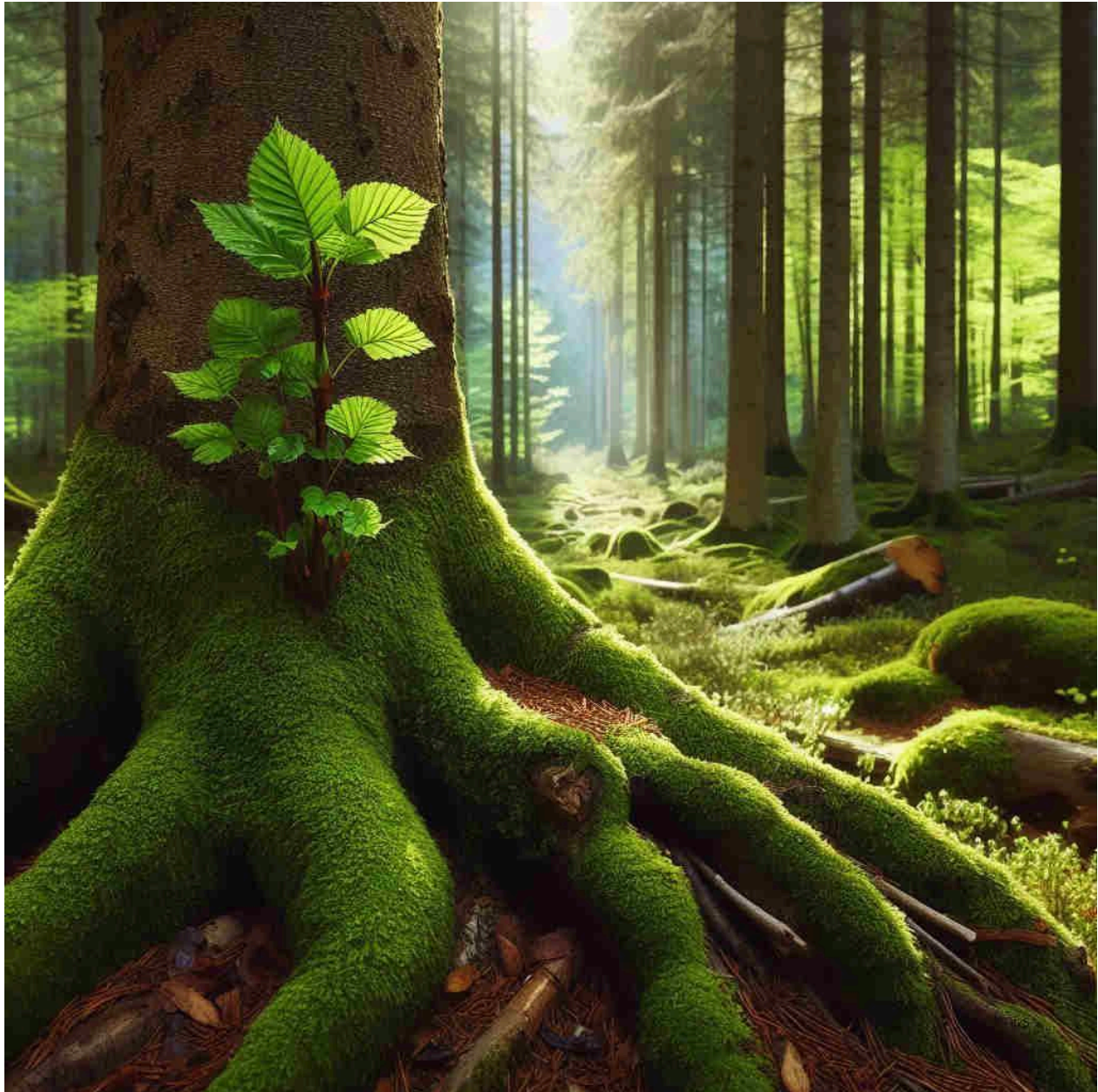


Fig 39. How different are we from a tree?

Story about science

Now we have some tools to even see the truths of science. Let's imagine some situations on a superficial level and see whether we can get deeper meaning.

A physician about 100 years ago, was taught about Anatomy, Physiology and Pathology and trained under a teacher and started to practice Medicine on his own. The knowledge he learned about diseases were considered true at the time of his practise.

However, as we all know knowledge is evolving faster than before because of scientific methods. This is the era of science, we even challenge our traditional views with science. And science has become a [religion](#) for most of us, on its own.

The physician is using the knowledge which is brought forward by science. What is the tool which science uses to bring about this knowledge? As an example, let's imagine our physician noticed that there is a recent increase in some rare diseases. And he will hypothesize possible reasons for his observation and next he will make an experiment to identify whether the hypothesis is correct by making two groups with and without exposure to possible reason. These groups are essentially similar and observed over time. And if exposure leads to the change in outcome significantly, the hypothesis is considered as correct. (of course, there will be ethics, difficulties in creating two similar groups, bias, etc etc) This is the scientific method where we find out truths about our observations.

Now let's look at some examples from such conclusions. " Smoking leads to higher risk of lung [cancer](#)". Science has proven the above conclusion, Even a person who is smoking will know the above statement is true. However, there is another dimension to it as it does not end there.

What are the reasons for smoking?

Depression, Gender, Culture, Personality will determine whether we smoke or not, but this list is not exhaustive for a few reasons, even the tobacco policies by the government are reasons for the people to smoke. What about advertisements, what about the weather (which depend on sun and moon). For an individual person to smoke and continue smoking there are thousands of reasons.

Now we will go further, why do people get [depressed](#)? There are many reasons for someone to get depressed, maybe loss of a loved one, maybe pressures from our own higher expectations.

Why do people lose loved ones? They can die of aging, even cancer. Even lung cancer!

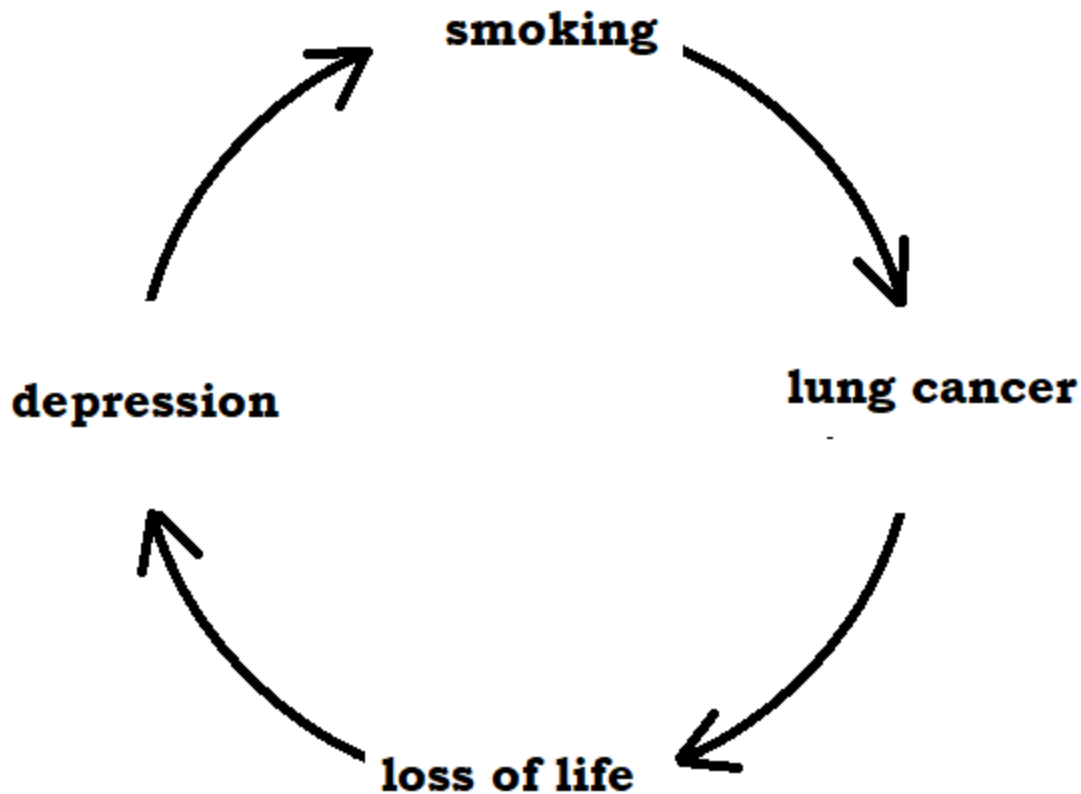


Fig 40. Complex relationships of cause and effect

Now we can understand that when you start to reason backwards there is no end to it, as for some observed event to happen there are hundreds of reasons, and these reasons are quite interconnected and bound with each other. Of course, some are very immediate reasons, but there is only [limited depth](#) the science can experiment on these. Like in our case, even lung cancer is a cause for lung cancer in someone else. However impossible and improbable it is, still it is. Even the sun and moon are causes for lung cancer as everything is [dependent on each other](#) and bound to each other by reason. But if you say that you got lung cancer because you are feeling too cold in the morning you will be considered insane, but truth is it is possible. By reasoning we can understand that science has limited power to understand and explain all these causes and effects which happen.

Now let's look at two people arguing about something and starting fighting with each other. Let's imagine there was a car accident, the car was bumped by the one behind as he was driving recklessly.

If science is your friend, you will start reasoning out that your car was hit by this foolish person who drove behind your back and knocked your bumper. He was careless and distracted by the phone. You will start yelling at him. And making it a miserable affair.

If [wisdom](#) is your friend, you will start to think that it appears the driver behind is distracted. He is a reckless driver. What are the reasons for him to drive recklessly? He may be in a hurry. He may be an underpaid, depressed worker. Maybe he is a criminal. Why are there unhappy criminals in our society? Because there are no good policies in our country. The truth is you can never exactly know why there was a car accident. You will never get the big picture. There is too much depth to it. You can be responsible for your own car accident, which you have done in the past, even if you did nothing causing it as an immediate reason. (chaos theory) And for everything we observe in our nature, we are the reason for it.

Story about story itself.

Deterministic world and free will.

For a long time still debated in philosophy and psychology if there is something that exists as a free will. Or is it just a work of nature? If it is just a work of nature, whatever we think we do will be absurd. Because nature follows its own laws, physical laws. We are made up of essentially chemicals. Yet we possess characteristics of free will. We think for ourselves, we plan, we [create](#), we measure, we have made laws to protect our free will. And we punish perpetrators, praise hard workers. It all comes to our own understanding of how consciousness and thoughts are formed.

If we are the manager of a car factory we should be able to see how many cars are developed now, we should be able to determine how many cars are developed next hour, in what model and in which color. We should be able to stop the production and rest of the machines. We should be able to see the process stop the process and restart the process.

Let's think about it closely. Think you are the manager of your factory of thoughts. When was the last time you generated your own thoughts? Can you predict

how many thoughts you are going to have in the next hour? Can you stop the [chain of thoughts](#) at your will and rest the [machine](#)? Can you sleep at your will? Atleast can you predict what your next thought is? What if the cause and effect that we were taught is wrong? What if the 'I' is the effect of the same factory, not the manager. What if 'I' is just another car? What if 'I' is not the cause but the effect which is created after the thought itself?

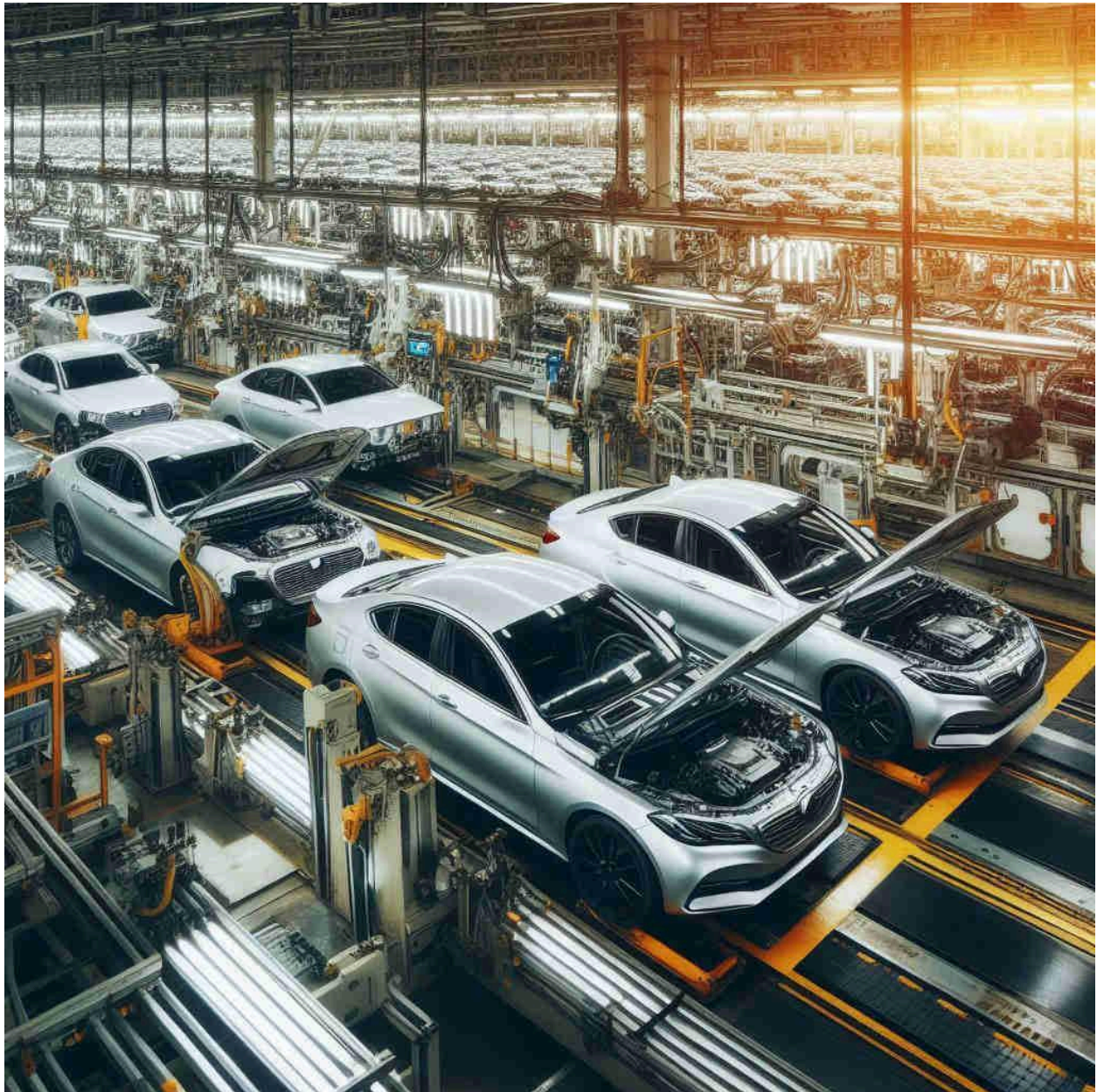


Fig 41. Factory of thoughts

Relative nature of everything.- The world of lies.

So far in this book I have tried to tackle the problem of time, by just building up from relative truths of science. And the relative nature of time was more and more apparent from each step we took. And if we even follow blind statements from scientists, still they would agree that time is not absolute and not independent of at least from space. Not only the time. We have seen some other relative truths about our language. Colors. Speeds. What does this tell us?

Let's imagine the only truth about truth is that every truth is always relative. Let's be [positive](#), that relativism is true. Let's see some common truth's about our lives, our science and our world and see whether it holds true.

What about the past? We all agree there is a past. So far we have seen stories and events. How do you know that you have a past? What is the meaning of the past to you? When we think about the concept of the past we always attribute it to some events which happened in the past. These events from the past are recorded in different formats. It may be a picture, it may be a document or documentary, It may be a memory. However the feeling of the past always happens when some of this stored data is re-loaded into your random access memory, which is now. So, without these events coming into the present [awareness](#), you would not be able to figure out the concept of the past at all. We are always in the process of bringing these memories into the present awareness. By nature, simply said, you would not be able to understand even a word without your memories about english. However these memories are not the real 'past' which actually we do not have access to. You do not have access to the fraction of second from the past. It is just an illusion of the mind which happens each and every second.

Similarly, what is the future? Future has never come. It is not at all accessible either. We have memories, predictions about what happens in the future. True future for us is not accessible. Because what we think about the future is again a projection of the mind which happens now. And the truth is we really do not know why these projections occur.

So there is no past, it's a projection from the past which happens now. There is no future, it is just a projection of the future which is happening now. So, does it prove that there is Now?

There comes the impossible now. We are back to the [walk](#) on the beach. Some wise men knew about the illusion of past and future which happens in the Now. And they thought, Ah ! now must be a real thing then. So they asked us to ' live for the moment' 'Enjoy the journey' 'Carpe-diem' because they believed in the power of now. But if the relative truth about everything is true Now cannot be true too. Let's see what really happens now.

Let's go back to our timeline from earlier chapters. As we understand, let's imagine 'Now' is thousandths of a second. What can you do in that fraction of time'. Simply we cannot even create a meaningful sentence, utter a word in a fraction that small. However we feel that we are thinking meaningful words. We are thinking that we talk and do meaningful things, if you think about it closely we really do not know how these meaningful things came from. It should not make sense. What our minds comprehend and output as thoughts is not what is happening 'now' (which is fraction of a second, however this should be immeasurably small)

There was a rabbit who wanted to race a tortoise.

And he was sure to win this time.

He gave a head start to the tortoise.

And once the tortoise was out of vision.

[Rabbit](#) dashed from the start.

By the time Rabbit ran to where the tortoise was.

Tortoise had moved some more

By the time Rabbit ran to the tortoise

Tortoise had moved some more

They kept doing, rabbit never reached the tortoise

They are yet to finish the race.



Fig 42. Tortoise paradox

That is the famous **Achilles and tortoise paradox**. However it assumes the rabbit can run. The **Dichotomy paradox** on the other hand argues you can never even start a journey as the paradox explained. Imagine you are going to the airport from home. To go to the [airport](#) you have to go half of that distance first. And before that you have to go half of that distance, and half of that, and half of that. So there are an infinite amount of distances you have to travel, completing an infinite amount of tasks. Yet we reach the

airport. So, we are doing things which are impossible, and even walking is a mystery to us. When the science teachers taught us that by giving F force on an object it is accelerated with a creating a motion, we totally forget the big picture of relative truths about any of these measurables. Trying to crack down these paradoxes with mathematics and language may appear a wise thing to do. However the conclusions we arrive at are never going to be true as the paradoxes themselves are made up of language which is again an artificial creation of human beings. But they provide us with opportunities to think about ourselves seriously, even a simple task such as walking on the road.

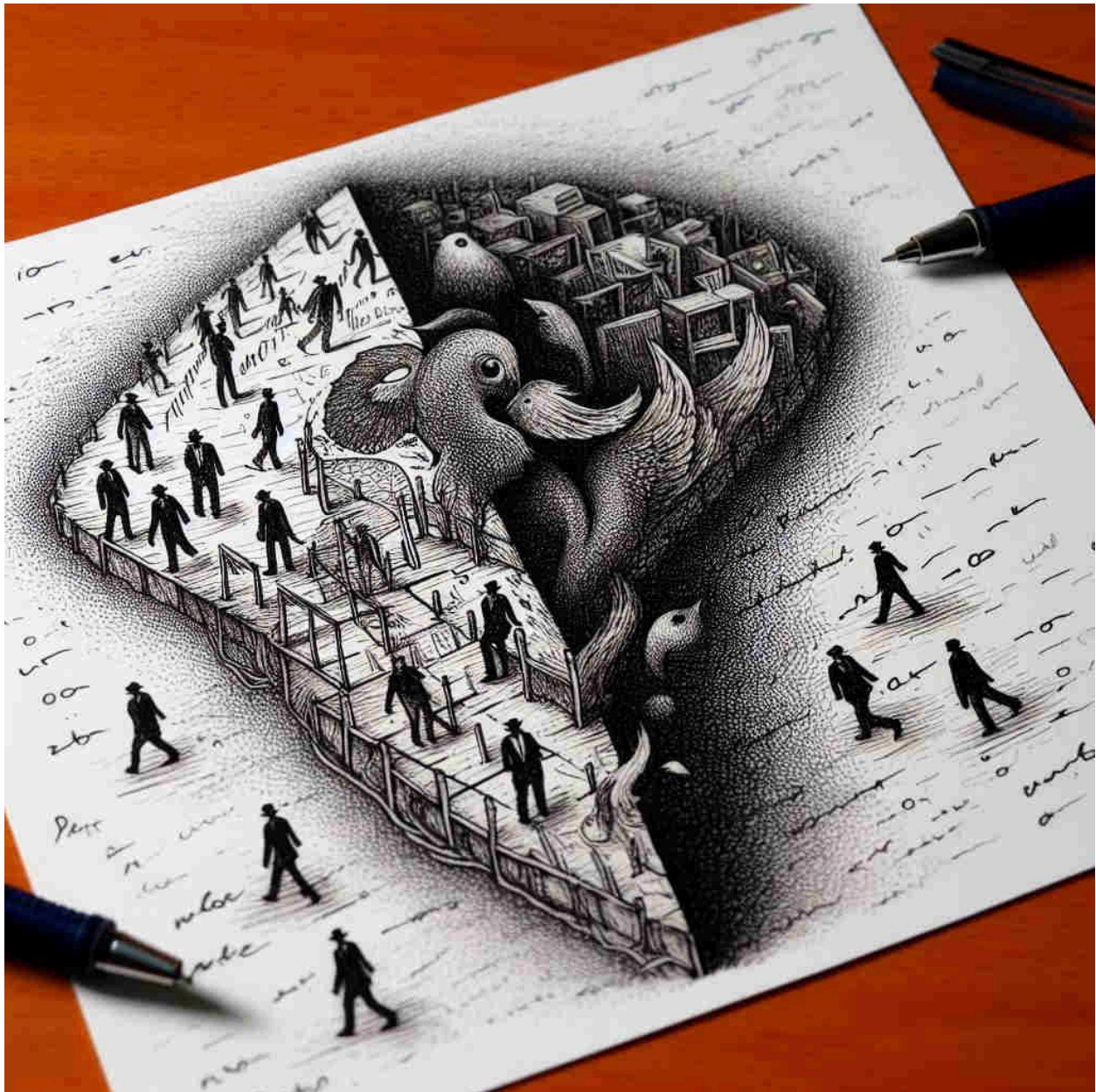


Fig 43. Dichotomy paradox

Truth about [things we see.](#)

Trees are our friends. If they are not here we would not be here. Hug the trees, back again to save the world. Let's look at a tree, with our eyes. We see leaves, branches, trunk, and maybe part of the root. Imagine you went to see **General Sherman**, the redwood. Its immense trunk fascinates us. Now does the leaf of [giant](#) Sherman, is

giant Sherman? Or the trunk? Or the roots? Taken separately there is no giant Sherman. But if taken together, Ah, there it is the biggest living tree with the biggest trunk ! See the magic happens in the mind.

Let's look at a few other examples to understand more and more truths about what we see.

Let's look at a tree again, this time with a microscope, now our eyes have better resolution and magnification. Now, let's look at a leaf of this big red giant. Under the microscope. What do we see?

We would see cells, cell walls, epidermal cells, spores, palisade tissue, spongy tissue, phloem etc. Now if you were a biologist you would know better that a leaf is a collection of cells in special arrangement. The question is are these individual components a 'leaf'? If not, a 'leaf' is created in our imagination.

We can go further, let's look at a cell under more magnification. We would be able to understand the individual parts of the epidermal cell. A cell wall, membrane, plasma, a nucleus etc. Do these individual parts represent a leaf? No, but the collection is called an epidermal cell. So again, the epidermal cell is an imagination, an illusion of mind, in nature there is no epidermal cell. It is a creation of the human mind.

Still there is some depth that we can go, Let's look at these individual cells using an electron microscope. What would we see? We would see structures of proteins, lipids, nucleic acid bathed in a tub of water covered by a membrane making individual parts of the cell. We can move from our biology to our chemistry now.

If we look at protein, what is it composed of? It is a three dimensional structure made of a large array of amino acids (a kind of bio chemicals). Does this individual amino acid represent a protein? No, it does not, it is the collection, the specific structure, if it is not it would be an abnormal protein. So an individual protein is not something in nature. It is still a [man made concept](#).

What about amino acids? That should be something in nature. However, still we can go deep. Amino acids are specific arrangements of different elements/atoms arranged in specific form. So, amino acid is still a man made relative truth.

What about an atom? Are we there yet? Are we at the end? Have we found the ultimate truth in an atom?

Not at all there are subatomic particles in the form of protons, neutrons and electrons together to form an atom. So, atoms are again an arbitrary concept.

What about a proton, in the standard model of particle physics still it is considered as a composite particle composed of three valence quarks.

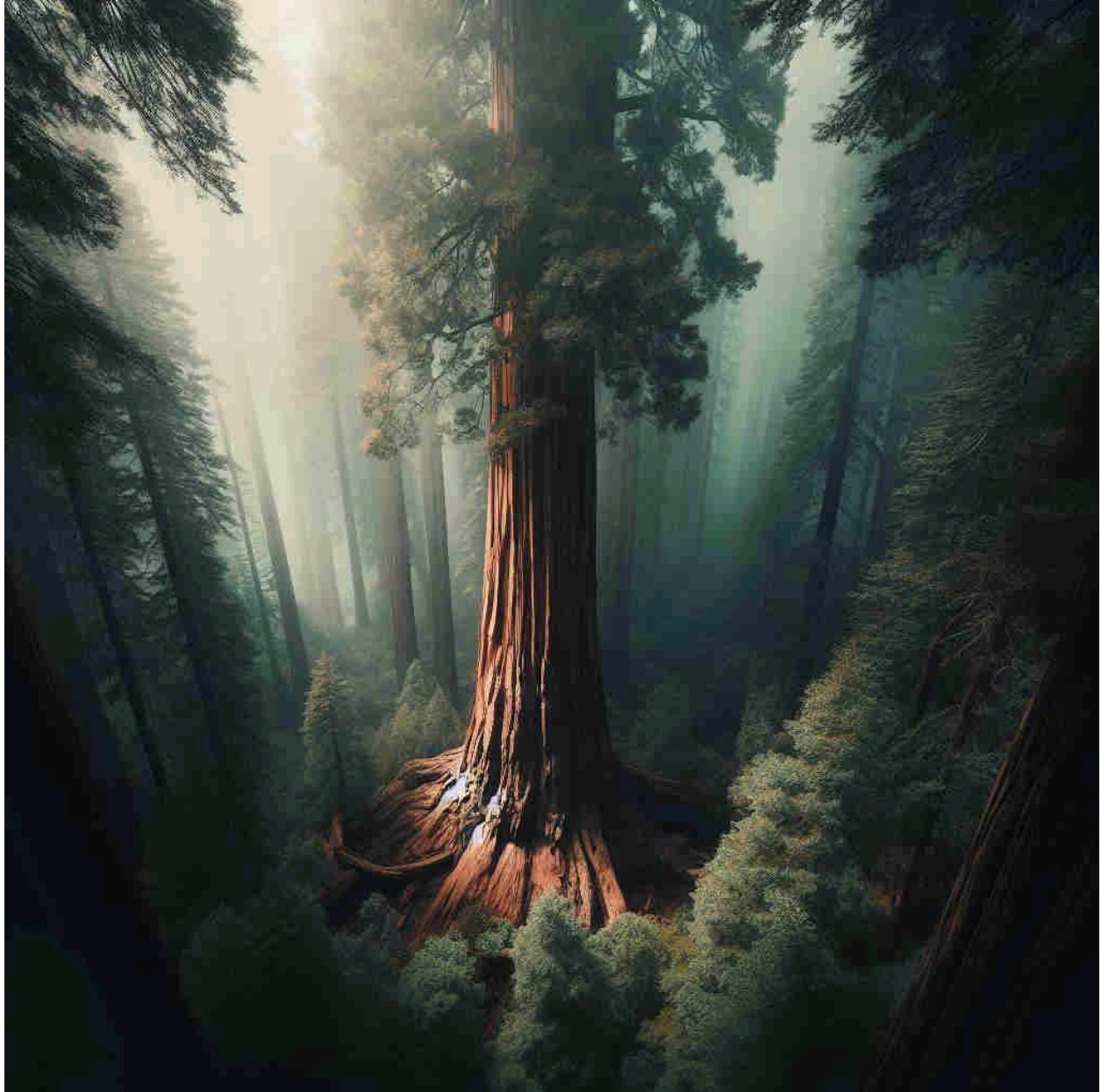


Fig 44. Redwood Tree

These are the depths the modern science has looked into, and we find that the more we search, the more we find that examples for nothing are absolute truths. So the trees that we see can be,

A tree

A collection of leaves, roots and a trunk

A collection of cells

A collection of proteins, nucleic acid, lipids and water

A collection of atoms

A collection of subatomic particles

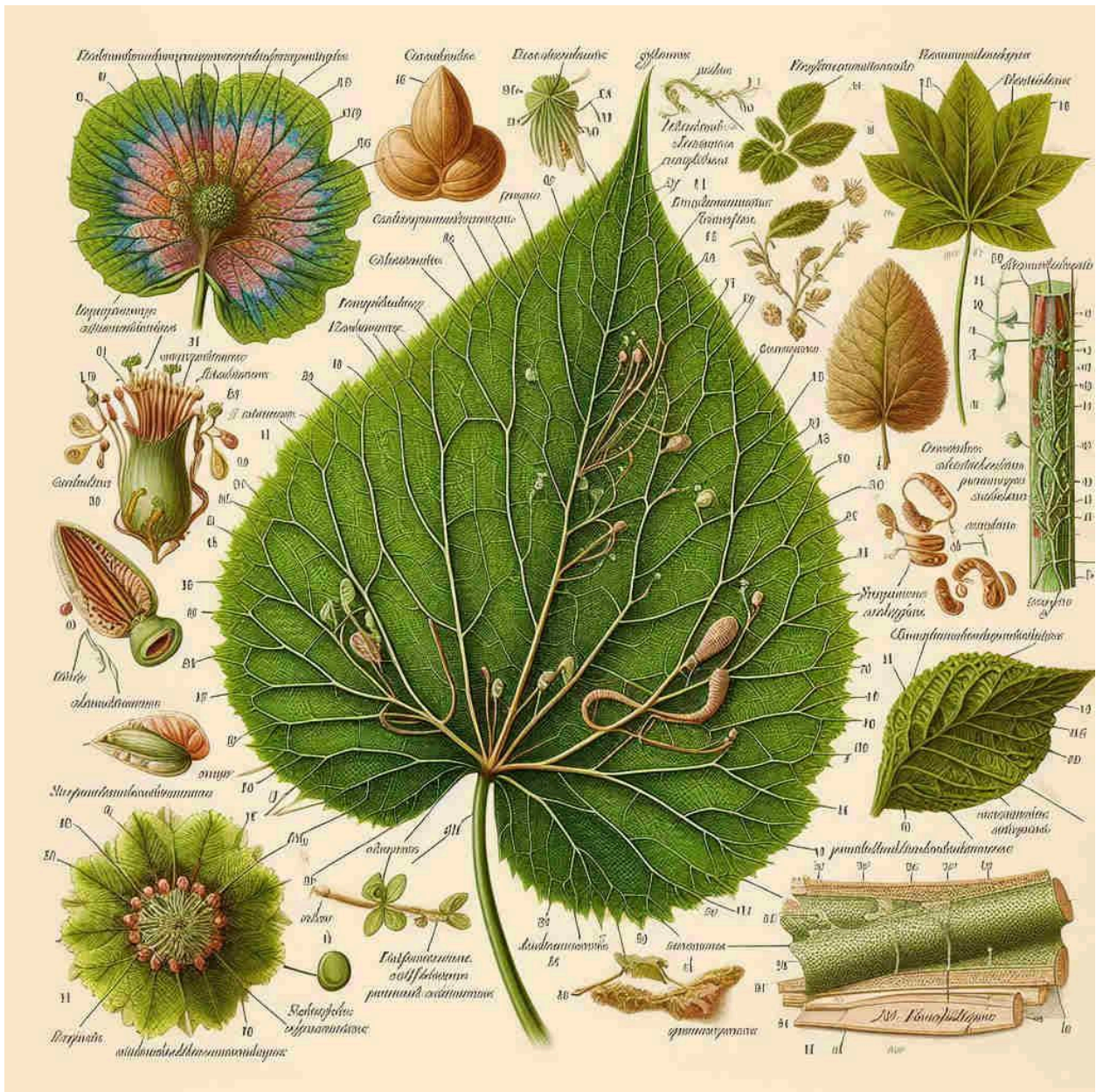


Fig 45. A leaf, a collection, an imagination

However all these are relative truths. We really do not know what a tree actually is and there is no way we would ever know that. Because space is always indivisibly divisible. A tree is a relative truth, even to the level of subatomic particles. Now we can apply this to everything we see. A [flower](#) is not a flower, it's a name for its collection of parts. Petals are not petals, its collection of cells in tissue.

A wall is not a real thing itself, it is a collection of bricks and mortar. Bricks are not bricks, they're sand and mud. Sand is not [sand](#), its carbon, hydrogen, collection of chemicals and atoms. Taken together as a concept, they are measured and valued. But broken down with wisdom everything loses its value. We already know, parts of a car are not a car, we use these concepts to build more meaningful programs by putting non meaningful things together, to build rockets, pyramids, and airplanes. But when the collections are made we assume a value to it. And with this value there comes the race to happiness. And we lose ourselves seeking this 'meaningful things which are made of non meaningful things.'

What about the living beings? What about a dog that is walking by? At Least we know the [physical parts of the dog](#) are made up of material in the world and have no meaning to it. However when life is added to it suddenly it becomes this magical creature. But separated from each other, life and the body have no value or meaning. It is true we do not understand the forces behind this soul which brings some unlively body into life. But essentially it is a collection. Instead of seeing it as a collection, we see a heart warming adorable dog. Now we can turn ourselves into unknown men and women, children and then neighbors. At last looking into ourselves. We can see we are a collection of things, myself is a relative truth composed of a mind and a body in simple terms.

What about the statement 'I see a tree'? Now we have seen the relative nature of a tree. What about seeing the action? Is seeing something an absolute truth? At Least we can see that 'I' is made up of mind and body. There is no true 'I' there.

Let's look at the above action which is called 'seeing'. Try to understand what is truly happening when we [see something](#). Let's imagine you are seeing a flower, or a bee, or a car. It doesn't matter what you see but we will follow the process as far as we can understand in our simple words. Light from the sun falls on the flower and it absorbs some of these light rays (which are electromagnetic waves) and [reflect](#) back what is

not absorbed. (basically the color of a flower is not a color of a flower but a property of reactivity to light). This light travels through the air and it is reflected and focused into our retina (back of the eye) where there are specialized cells called rod cells and cone cells which again convert these light signals into a chemical signal which is traveled via optic nerves into the brain visual cortex and then some magic happens which is not scientifically identified, and we feel that we are seeing the color. So, the seeing color did not happen at the level of the flower, not during its transmission into retina, not at the level of the optic nerve, and we have no clue what happened to the electric signal (which is last identifiable by science) and how it became a thought in our minds as “Ah that yellow flower “ and brought back all the memories. And we call it our ‘mind’. So it is arguable the body is just a tool to bring information to our mind which acts as a central processing unit, converting these external stimuli into meaningful messages. And the CPU is connected to our past memory or the ‘storage disc’, and ‘random access memory’ , which holds this information long enough for us to create meaningful messages. It is not exactly what is happening but we can understand similarities. And we can understand that seeing is not a [thing](#) itself. But It is a collection of small processes which can be really broken down into steps. That is all the breaking down which we can really go for with our current [knowledge](#), But you can assume any process which has a beginning and end can be broken down into two, again and again. And at the end we will find a meaningless impossible fraction of a process. ‘Seeing something’ is a process which can be broken down into a collection of processes, some of which are yet to be discovered. However, even when we think about the processes that we have discovered, it can lead to misty if we question them, showing these are relative truths. Think about the above example, Think about [‘light traveling through the air’](#) part of the above process. Do we really know how light travels through the air? According to Einstein light consists of photons, which are particles and they travel in air like a wave. How does a particle move from one place to another? Here we are back again to the same paradox pathway.

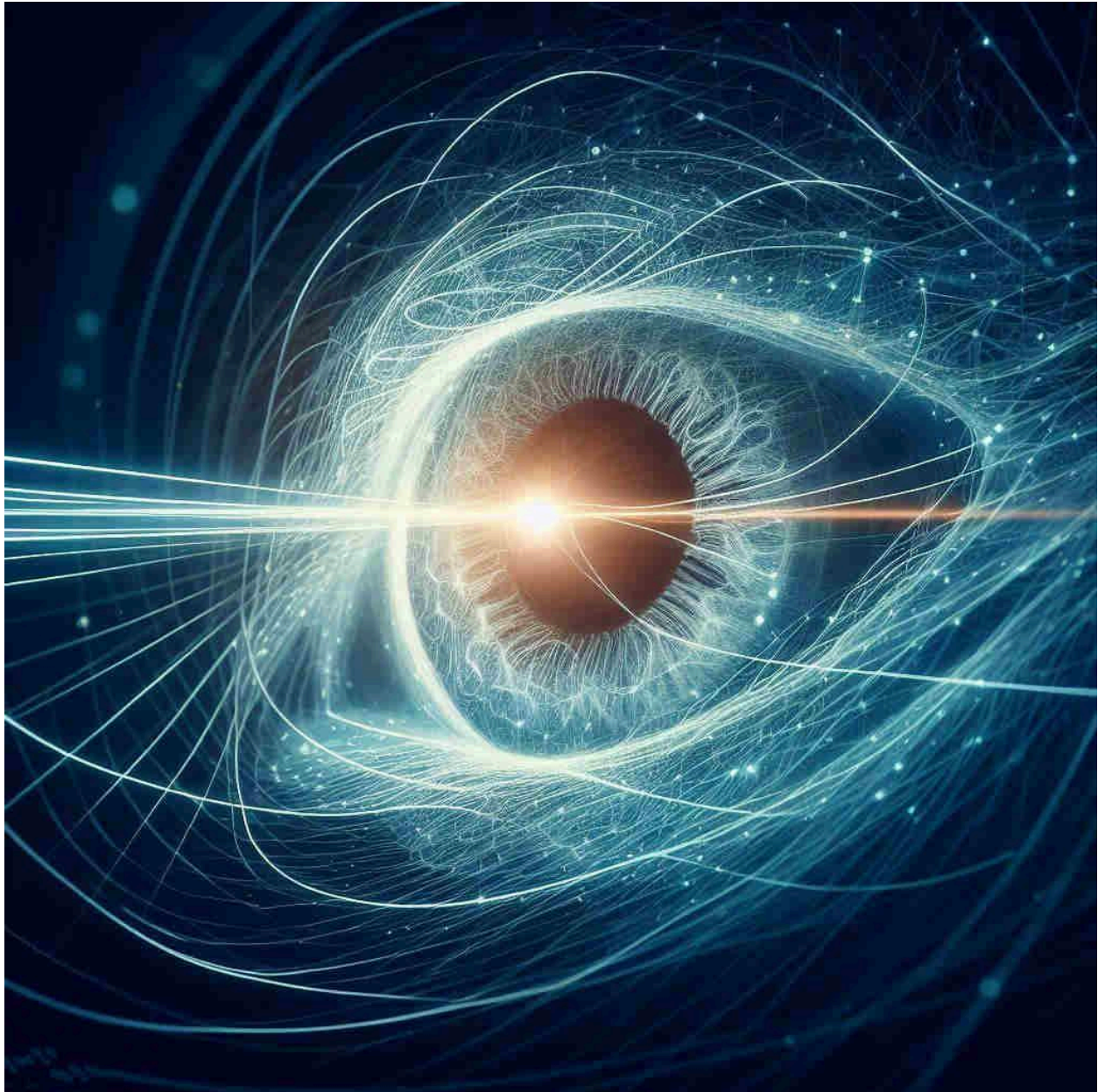


Fig 46. Optics eye and vision.

The arrow paradox. It starts by dividing instances of time. Lets imagine time consists of unlimited instances. Imagine an arrow moving from the bow to the target. At any given instance of time the arrow should be occupying some space, and it is not moving forward because time has not passed and it is not moving into that space because it is already there. Essentially the arrow is motionless in that instance of time.

And each and every instance of time the arrow is motionless and time consists of instances the motion is impossible.

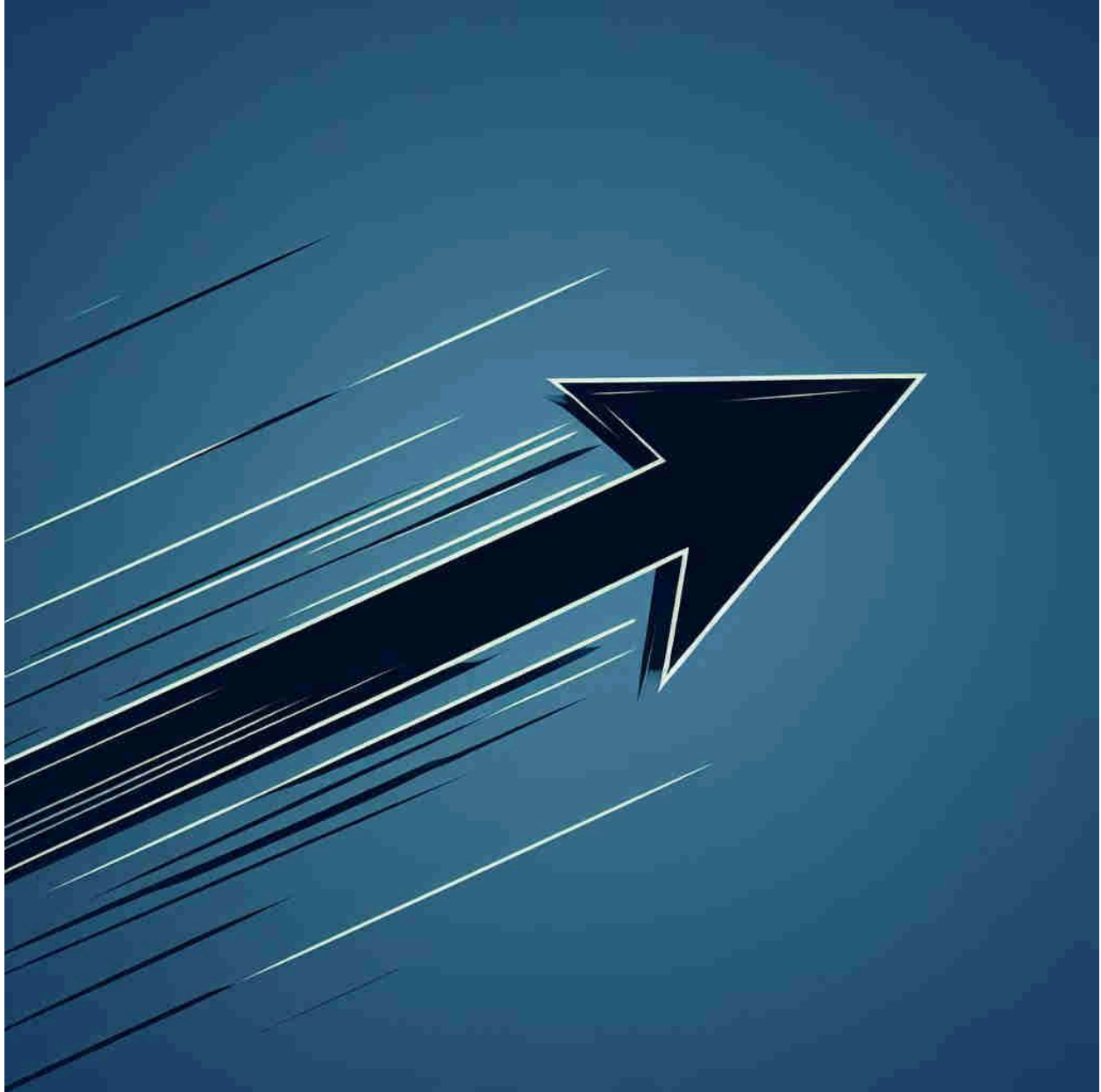


Fig 47. Is the arrow stationary, or is it moving?

But it appears the arrow moves and hits the target after all. So the time must not consist of instances. And how does our brain get around this problem? Our brain, or the mind tries to understand the world. And it creates the freeze frames in time which are again arbitrary as time has no instances. Imagine when we talk about the [Hiroshima](#)

bomb incident. The picture of the gigantic mushroom cloud comes into our mind. But if time has no instances , we cannot talk about the Hiroshima bomb. It would be meaningless. There is no specific point in time which can be pointed out as the Hiroshima bomb incident.

Hiroshima bomb incident,

It is not the plane that flew with the bomb over japan,

It is not the release of the bomb

It is not the travel of the bomb through the air

It is not the impact of the bomb on ground

It is not the detonation

It is not the explosion

It is not the Nuclear blast

It is not the shock wave

It is not the collapse of the [buildings](#) and the [clouds](#) that followed

It is a collection of every one of these events. And we know by the arrow paradox we cannot talk about an individual event which happened at an instance of time as time seems to be instanceless in the first place.



Fig 48. A mushroom of Death.

What do we understand about the taste and ice cream? You would say it is a memory in the mind. However the [taste that you felt](#) eating ice cream is never the same as someone else. So, the memory of the taste of an ice cream is a relative truth and we would never know what it tastes for someone else. Lets try and understand what happens when someone 'eats an ice cream'. Imagine the drooling advertisement about the little girl's taste in ice cream while it is dripping and melting. Now, She moves her

hand and touches her tongue with the ice cream and it melts and chemicals touch her taste buds on her tongue. These are again contacted with receptors and activate neural signals along the lingual and glossopharyngeal nerve to be traveled to the brain and rely on taste sensory area, then after the brain magic happens, we identify the ice cream as tasty.

'Taste' wasn't in the ice-cream otherwise we should felt it before touching

'Taste' wasn't on the tongue - some people lose the taste after they damage nerves after a surgery (eg: parotid gland)

'Taste' wasn't in the brain. You'd assume a taste is a change in the status of your mind after all this happened. So far that is the farthest we can go.



Fig 49. Taste

We can follow the same thought process to hearing, touching and smelling as well. It will all end up being converged into our mind, our feelings and our soul.

Imagine you are [listening to a song](#). It is difficult to find youth nowadays without earbud headphones or bluetooth devices connected to their phones. Constantly we are giving stimulation to our brain, hardly our minds have relaxation to see the world as

natural gaps are blocked by artificial sounds. What does it mean to [hear](#) something? Sound waves which are created by vibrations in the speaker travels through the ear canal to vibrate our eardrums and the lever mechanism and ultimately end up as vibrations of the hair cells in the inner ear to produce electrical signals to the brain via vestibulocochlear nerve. These vibrations create changes in the brain cells and by some unknown mechanisms we first identify this information by comparing with our past experiences.

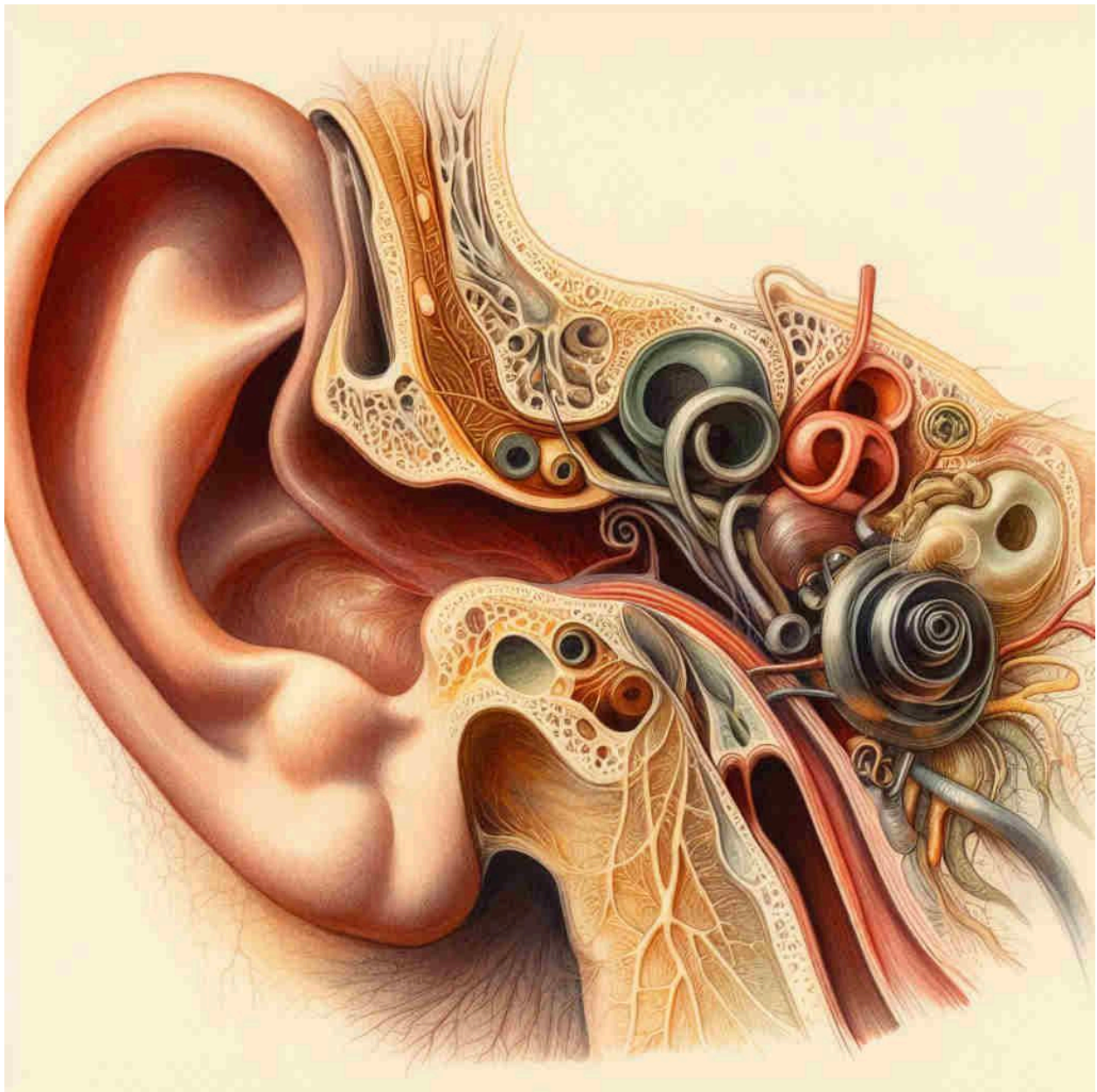


Fig 50. Hearing

Science has created opportunities for us to expand our ability to achieve information, improve our tactile sensations, use hearing aids to improve our hearing, and even spectacles to wear, outside and inside our eyes as lenses. Yet we are far from understanding what happens when the information reaches the brain. It is a great mystery. Hence the gap between science and our existence still remains. We as humans, individually try to create this gap by various means, and exhaust ourselves at the end.

Similarly pain, touch, temperature and tickle is created when [specific sensory organs](#) on our skin and internal organs create different stimuli into nerve signals carried into our brains and specific relay areas, connected with the mind to understand them. Smell occurs when chemicals dissolve and stimulate olfactory receptors again making similar signals and passing into our brains. Now we have a basic understanding of how everything is connected from our body to our mind.

Now let's go back to our question again. You were in the redwood forest and you were in front of the giant redwood tree and you saw the tree and shouted ' I see the tree'. We have seen the relative nature of the tree, we have seen the relative nature of the seeing. Next natural question anyone would ask at this moment is am I' relative too? It is time to ask serious questions about our existence now.

[Who am I?](#)

Truths about things we think of as Us.

The answer to the [question](#) is not simple at all. If we knew the answer we could have used it for a good purpose. Now lay down your best answer. If someone asks the above question from you, what would you say? Your name right? Well, we will analyze these answers.

I am a lawyer,

I am the owner of this house

I am the owner of a company which owns houses.

I am the best swimmer in the world

I am the happiest person in the world.

These answers do not directly tell who you are, but what you own or your associations. Someone might ultimately say I am mind, or the soul. Maybe we are asking the wrong question. We will hunt down the mysterious 'I' following the trail.

How do you know who you are? How do you know of your existence? It is by seeing, hearing, feeling, tasting, smelling and thinking. One would say. Let's imagine, you without the above processes. Can you do that? Can you imagine yourself without the above processes? What you would be if you cannot hear, cannot see, cannot feel, cannot taste, cannot smell, and cannot think. It seems that it is very difficult to imagine something that exists as you when the above [processes cease](#). It's like the 'I' [disappears](#) when that happens.

When the above processes are there, magically 'I' comes into the picture. So, the 'I' is inherently associated with our tools of measurement of the world. If there are no input devices there is no evidence of 'I' existence.

What if we are wrong about the cause and the effect. For so long that we have been thinking that 'I' exists and do these so-called looking, tasting, touching, thinking etc. However what if 'I' is not the cause but the effect of these processes. Now let's look back at General Sherman the tree. We argued that the 'General Sherman the tree' is an imaginary concept which is formed in our minds after naming the collection it represents. Hence it is a relative truth.

Now let's look at ourselves, as we formulate above we are also a collection of , seeing, tasting, smelling, touching, hearing and thinking. A collection of processes. And the similarity is true, we can assume the 'I' is an imagination in our mind to name the collection of these processes. It seems the processes are happening so fast, that it can jump from hearing to smelling in fraction of seconds that we feel like we are continuously there to experience it all. But, Just like the computer which processes only one bit at any given point of time (which is an arbitrary fixation of time) we also cannot access, and accept all the inputs at once. However fast enough, so there are no significant gaps, and it feels smooth. All this is a relative truth. An argument which is made of thoughts.

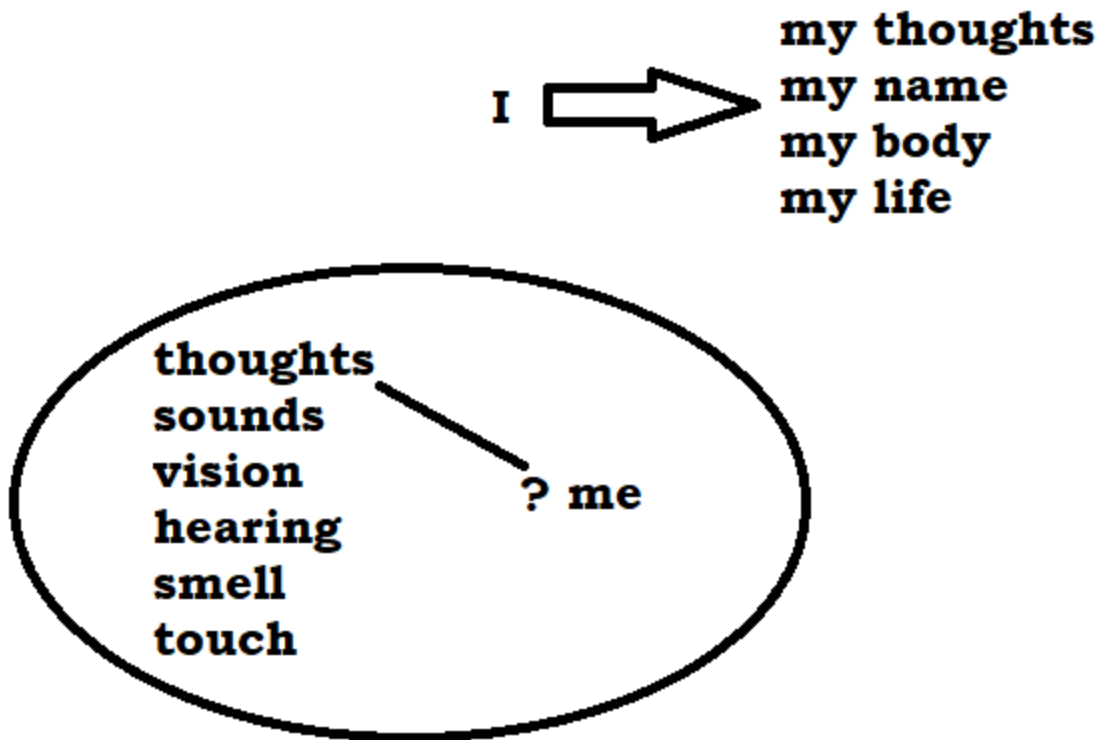


Fig 51. "I" as a cause vs "I" as an effect.

What about thoughts? We can end our journey by thinking about thoughts and trying to understand them.

We already argued that thoughts such as the taste of an ice-cream is relative for you. We can never compare your thoughts against other ones, as it is relative to the information you are receiving and information you have already gathered in your hard drive and RAM. However, we have yet to understand the [relative nature of a thought](#). And our understanding of time comes handy for this purpose.

Now let's imagine a 'tree' is a thought. That a tree exists in each of our minds as a thought relative to each other. It essentially argues that a 'thought about tree' is a thing. However it must occupy some time. We can imagine the thought would not occupy any space(only because we do not have evidence otherwise). But it should occupy some time, as we are only having a limited number of thoughts per day. Even reaction times are evidence that thoughts are still associated with time.

When we have identified truths about time, we have shown that time is a continuum rather than consistent of individual instances (arrow paradox). If we follow the same rules from the arrow paradox, we can divide thought of a tree into several minute components, like the 't', 'r', 'e', 'e' and combination of this and the process which happens to develop a thought. Really speaking when divided into an unlimited number of small time instances thought of as a tree, doesn't make sense in the present and it shouldn't, as real now is not graspable by all means. However we still feel something as a tree. And it should be a relative thing rather than an absolute truth.



Fig 52. Brain, the computer

I saw a tree once in my garden.
And I saw there shouldn't be a tree, but there was a tree.
And I saw I couldn't see it, but I noticed I saw it.
And I understood there shouldn't be me, doing the thinking.
But there I was thinking about it.
And I understood it must be an [illusion](#).
Then I thought 'illusion' which is another thought

More Insights..

War crime and peace.

Fact that at war, crime is considered as less criminal

Let's imagine a criminal, let's imagine a criminal who has done a lot of crimes, serious crimes from theft to killing innocent men and women. Now imagine one day the criminal wakes up and realizes that he wants to become a good person. Despite all the crimes he has done his inner self awakens and decides that he is to end the criminal life forever. And he does go to the god's court and asks for [forgiveness](#). What do you think God should do? Should god punish him by sending him to a prison? Or should the god punish him inflicting the same pain as he has put others through? If the god is pure and kind, I would suggest otherwise. I would suggest the [god](#) will understand his good intentions and grant him permission to grant him to be good. Do not you agree, after all it is god. God is unlimited kindness, how can he be having evil thoughts like sending a man to the underworld? And the next question is somewhat difficult. Now imagine the same man, after God's punishment, he falls into the evils again and does another crime. This time he is facing the same God in the same [court of justice](#) and asked for forgiveness. What should God do this time? Should God punish the man? Or should God think this man has broken his words against the court, this time he should be punished more? I would suggest otherwise, if God is pure and kind, he will forgive the poor man, and further he will forgive each and every time he appears in the court. Until one day he will really keep his promise and never appear in court, he will be treated with kindness.

What we do in our [courts today](#), are we practicing God's forgiveness and helping those who committed crimes to get out of their thoughts of harming others, or we are practicing evil against them, inflicting the same pain that they have caused others and expecting them to magically turn over to become good. How can we judge what someone does in some circumstances, as we know we are the ones who teach our children that diamonds and rubies are more valuable than common rocks. We are the ones who teach our children life is about pleasuring ourselves and taking care of ourselves, and give these measurement tools for measuring themselves. Now we blame them for becoming evil on their own? Have you ever not committed a crime, like even in mind, stolen from others, craved some richness, and wished someone evil? What if the

circumstances were there for you to actually do it? Who is to be blamed? What court would you like to be in? The human court where you will be judged by fellow humans with the same [human weakness](#), or the God's court with kindness and love where you will be given a chance to reflect on yourself yet again.

[Love is forgiveness](#), relentless, pure and repetitive, without any remorse. There would be less prisons, less [divorces](#) and less pain that we inflict on others if we understand the nature of love.

In the film **Tower 2016**, which was based on the [Texas shooting](#) which happened in 1966, the massacre which happened on that day was described in the most graphical way imaginable by true accounts of victims involved. There were 15 dead and 31 more wounded at the end of a killing spree of an insane man. At the end of the documentary, when the reporter asked the victim of this massacre whether she forgives the shooter for ruining everything and many lives that day, she said yes. It is the same mind with unknown mechanisms which produce saints and devils, heroes and cowards, within ourselves. And it seems, time has brought us more and more such stories, where the pendulum just swings back and forth between good and evil. And it is time for us to observe ourselves before our next swing.



Fig 53. Texas tower

American railway

In America, in the nation of hope, the economy of the country is so much dependent on trains. [Hundreds of trains carrying loads](#) and loads of heavy cargo across the country every day. These trains stretch into massive lengths with hundreds of carriages being coupled together. The power to start the train, provided by huge engines, still barely manage to start the train moving from the rest. However once the

train gains momentum there is less power needed, and it is harder to stop, it will crush and crash anything on its path.

Have you noticed the factory of thoughts? Our factory of thoughts outputs a long train of thoughts every day. The production is accelerated as we face events, novelties and disappointments. Once the production is accelerated it gains momentum and we would not notice until hours go by. It will slow down eventually by natural resistance of the train tracks, it will crash everything if it is accelerated enough but it will never stop. It will never stop, it will produce different trains with different materials. It will produce slow trains, fast trains, trains with [dreams](#), trains with color and trains of hope. But all those are trains. Trains without a driver, without a destination. Trains carrying cargo of relative truths.



Fig 54. Cargo train

Land of waterfalls.

Once nicknamed the pearl of the Indian Ocean, Sri Lanka is one of the most sought tourist attractions in the world. From tropical rainforests, wetlands, central mountains to coral beaches with its cultural triangles and friendly people it stands out among others. There are hundreds of waterfalls that are main attractions and popular destinations among [tourists](#). Anyone who likes visiting a [waterfall](#) will be mesmerized

by the beauty of nature and will take a couple of pictures and leave. Why are we in such a hurry? Let's drop down your camera and look at the fall. Without thinking about it. Listen to the sound. See the water droplets fall and crash on the stones and mixed with the wind to wet your cheeks. Look at the trees , silent giants which rise on either side of the fall. The [waterfall](#) is never ending, at one point you will have to leave yet nature allows us to learn if we are careful to listen.

The practice of observations you bring will help you to understand and observe never ending waterfalls within yourselves. How many years have you observed? Why do we have to be anxious each and every time a thought flies down and crashes on the stones? It seems like nature. Why do you expect everything to be perfect when it is already perfect by nature.



Fig 55. The land of waterfalls

Boxing day tsunami - on massive waves and [natural disasters](#).

In 2004 boxing day i woke up early morning and came to know there had been a major flood in coastal regions of our country. Later that day we saw videos from coastal cities, innocent people washed away by massive [waves](#) back and forth until they were washed back to the [sea](#). We had never seen those stories for ages, except there was one story from the ancient times when the queen of an ancient king sacrificed herself

and was sent to the sea to stop floods , and somehow it stopped after the sacrifice and she landed safely at another coast. Now we know the true nature of [tsunami](#). Now it's been almost two decades, still people are living by the coast, with memories of missing loved ones washed away by the sea. [Sea is not rough](#), like it's December 24 th of that year. Yet waves crash, and they retreat, over and over again. Occasionally a big wave reaches more than others and wash away some more into the land, and retract back to the sea. Even the tsunami retreated back to the sea.

I suggest you be the visitor of your own beach of mind, until you notice the endless process of thoughts crashing on the beach. To retract back. Occasionally big waves. And massive tsunamis will happen one day. And when it does, it is time to exercise your practice. It is the best prediction about the future we can make. And like some wise man once said ' The best thing I have learned about my life is not to trust each and every thought ' .

About finding true happiness.

What all these brain teasing, straining scientific facts teach us about life. Would it help us to live happily? If so, how? We do not have enough 'relative time' until the next 'relative tsunami' hits us and wash us away. We do not have enough 'relative time' until the next great scientific 'truth' which will be proven 'relative' 500 years into the future. We do not have enough time, until we are fired from our 'relative job' and come crashing down to zero and our minds drag us to a 'relative depression' where we would lose the ability to program ourselves. Imagine yourself, we ourselves are the great friends ourselves, our brains weep for understanding of these repeated waves of nature. It's time to give enough information, a new virus guard against viruses which comes as an 'absolute truth'.

So far it seems our language of mathematics, science and philosophy seems to be at a high level for us to understand the true nature of ourselves and everything we observe. It seems our minds create a biased picture of reality, when there is only reality that is only relative to each observer in his own self. Imagine a world where there is no you. Imagine a world where there is no observer to observe anything. Such a world cannot exist for that observer. Without an observer there will be no world. If that is true, it is not only because of the world you are here, it is because of you the [world is here](#). It

is not the world that is creating problems for us. We are the world, nothing separates us from the world. The world we see, hear and think is a relative truth for ourselves. It doesn't matter how many cars, how many aliens, how many animals are there. Let us teach ourselves the machine language of nature, which is the relative truth. Hopefully it will lead to losing the values, and the measurements we give to things, persons, places and doings and ultimately create us with enough wisdom to understand wordless [meanings of life](#). That true happiness is a relative truth.

Saving sea-shells.

I heard a great story about two guys who walked down a beach. As you can see there had been a big wave crashed beyond the beach the previous night and had washed plenty of sea shells off shore. They were still living. And as the story goes, one guy started to pick up these shells and started throwing them back to the sea. And His dear friend who is wise observed him for some time, and told him. Why are you doing this? You know there are thousands of shells beached, and you know you are never going to save all of them. And his reply amazed me as he took one and threw it to the ocean and said " It mattered to that one ! " Ever since I have been trying to pick up shells. It doesn't matter how many are gonna die without being saved. But it matters to the one who is picked up.

I haven't tried to create an essay out of a sentence. I have tried to summarize the wisdom of a hundred minds into an essay, so concise and precise. Hence, it can be read in a lifetime.



Fig 56. Sea Shells

A walk on the beach

It was a nice afternoon in the tropical country of sriLanka. Where I was born and been for all of my life. Southern beach in Weligama bay sun sets on the far west trying

to dip down in the sea. Just at the beginning of the Corona Pandemic. Beaches were empty. I had my daughter on my shoulders and I took a walk on the beach. From a far corner of the beach, I walked along the junction where the waves meet the sand, among tiny [crabs](#) who hide under the sand just to wake up and run away when the waves retreat back to sea. Halfway through the walk I looked back. Most of the footsteps were gone, flattened with fresh sand, erased by nature. Then I realized, there is nothing I can do about the past that is already left, nothing I can do about the future which is still not here, nothing I can do now because it's impossible to grasp. Life is an impossible dream. It cannot be true, yet it is true. Life cannot exist now, yet it does exist.

One day I had a walk on on the beach,
With my daughter on my shoulders.
My feet dug deep into the sand as i walked;
Halfway I looked back.
Most of my footsteps washed away,
No trace , fresh sand covered footsteps,
(There is no trace , past is vanished,
Only I can access is an image of the past created now.)
Waves crashed as ever.
Then I realized,
That I had no past, I had no future,
(Future has not arrived yet, it never will.)
And I cannot harvest the **power of now**.
It is too fast !
(‘Now’ has no meaning as time is continuum.
There are no fixed frames, whatever is expressed is just a dream.)

End.

Links to discussion

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