

Preamble

Existence Exists. Reality exists.

This is my attempt to explore, existence and reality, these two words with words. Words do not have meaning until they are used. Languages (symbols and words) were invented only about 10,000 year ago in multitude regions with human populations. Their use is unique with every individual. While they are convenient for exchange thoughts among humans, their meaning is not exchanged without distortions through the perception filter of the receiver and the hidden intention of the transmitter.

Consciousness is universal among all biological entities to translate stimulus and stimuli into response(s) and action(s). All biological entities sense their existence and create reality according to their given attributes. However, the meaning, i.e., the interpretation of what they sense by their given attributes for these two words, is unique to each and every biological entity. Certainly, the concept, existence and reality exist with or without these words once conceived by humans.

To illustrate, the meaning represented with words as in the quote, " I think, therefore I am" by Descartes. It gives the connotation that all other biological entities don't 'think', therefore they are inferior. This human centric thought persists ever since. In contrast without words (although I do have to use words to illustrate), " I think, I don't think, I am." is for all biological entities. As a matter of fact, humans exist and sense their reality as created before languages is not much different from all other biological entities. After the introduction of languages, humans exist in an alternative reality created by themselves with the additions of imagined and constructed realities. I use the term, alternative reality to differentiate what reality human senses after the invention of languages from the reality before languages.

As a member of the Homo sapiens species, my consciousness comes a result of what my 79 years of existence with accumulation of stimuli encountered, i.e., thoughts generated from stimuli and thoughts of fellow humans. Hence, what words used in writing this essay is purely my interpretations of what my understanding about these two words. I do not make references, acquired thoughts from others, as in scholarly papers. There are just too many in 79 years of readings. I do encourage readers to explore and to verify though. Simply, this is how it should be for everyone with his or her own consciousness. As such, this essay serves nothing more than a stimulus for anyone who is interested in exploring these two words. Obviously, this essay is but one essay among many. Whether it is noticed or ignored, the question about existence and reality continues as long as the Homo sapiens species exists.

Why existence and reality exists? It is beyond the given attributes of Homo sapiens species to know. However, change is constant and constant changes with what is created, and the concept of the words, existence and reality, however is eternal with or without humans or any biological entities.

Initial Conditions

The word, universe, defines all observable things and effects of unobservable things comes from the consciousness of humans. The creation of the universe initiated eons ago by a set of initial conditions. The universe, as such involves two fundamental components, observable things represented by the word, mass and the effect of mass in action, energy. $E=mc^2$, the equation that made Einstein famous and believed by almost every human on earth is incomplete. However, it does confirm the relation between mass and energy. Yet, the word, energy used to describe the effect and the capacity that enabling the mass to be functional is just a concept. The reason the equation is incomplete is that when the mass is without momentum, i.e., active, c is zero and E is zero. It is meaningless. As such, the concept, energy exists only when the mass is functional, i.e., earth orbiting around the sun, biological entities being

alive, etc. As such, the common belief that energy creates mass is totally not the case. Rather the transformation among different forms of mass can be described with different kind of concepts of energy, i.e., electrical vehicle moves by the chemical reaction, chemical energy, that produces electricity called electrical energy, living organism moves from foods eaten that converted into sugar, chemical energy to power the muscle with energy, kinetic energy to move, etc.

So, why, what, where, when and how the universe with masses of various forms comes into existence? Humans have been thinking about it and put them into words since the introduction of languages. Many have been based on their imaginations and become folk lores, imagined realities; and then comes scientific methods and mathematics with the ability to formulate the what, when and how into a somewhat explainable story, such as the Big Bang theory, string theory, constructed realities. Yet, the ultimate question of why and where can never be answered. Both imagined and constructed realities are far from satisfying for inquisitive minds or believable without doubts.

However, it is safe to say that the universe is created by a set of initial conditions, an easy way out without specify what are the conditions simply they are not definable. Since the creation is given without adequate explanations, it is also possible to use the word, free. It is also safe to say that all the subsequent changes in the creations of galaxies, planet, the solar system, earth, biological entities, etc are predetermined by this event.

This is not to say that there cannot be more than one set of initial conditions or the given Initial conditions cannot create more than one universe. Moreover, whether this set of conditions is not free but is the product of previous set of 'conditions' only adds to the mystery of creation. Nevertheless, all possibilities aside, they can be all lumped into 'the initial conditions' that create the universe.

Unique

The universe created by the initial conditions is unique, all creations afterwards are also unique. Changes do not produce identical products. However, repeatable processes do produce similar products or results, but absolutely not identical. Mathematical operations can be identical in concepts to interpret the change or the process of the change, but not the products or the results from the change. For example, $1+1=2$ is not possible in nature because measurements can never be identical. Water is never frozen at Celsius zero precisely but approximately at the concept of zero. Nor the mathematical imagined singularity exists.

In other words, everything in existence occurs once and once only. It is not possible to find or to prove any two physical entities are absolutely identical. The uncertainty principle prevents precise measurement of fundamental particles. They are the ingredients for all physical forms. Thus, in order for two identical forms to be measured and proved to be identical is out of the question.

The idea that there is another identical solar system, another identical earth with an identical biosphere and identical biological entities in existence somewhere in the universe or in another universe is purely a scientific fantasy. Nevertheless, some scientific scholars do fantasize without proof for public consumption. It is a violation of the scientific principle in my reckon.

Biological Entities

Certainly, the most unique creation from the initial conditions must be the biological entities on the planet earth. Again, humans have many imagined explanations to describe this creation. Yes, scientists have also constructed multiple theories with observations and experiments to answer partially the what, when, where and how. Nevertheless, the question of why remains just as the

initial conditions, unknown, other than it comes from the initial conditions.

Consciousness

The word, conscious, describes being alive for a biological entity. Unconscious is a useless word. The entity is either conscious or dead. The word, consciousness describes the state of a conscious biological entity, being alive. Although the human centric thinking reserves it for humans only, the fundamentals of being alive for all biological entities are the same. All biological entities react to stimulus(i) and produce a response(s) regardless what human centric thinking or the use of the word, consciousness. Thus, a biological entity has consciousness if cells made up this biological entity according to its body plans are functioning to keep it alive and being.

With imagined realities, all biological entities exist from an imagined creator. With constructed realities, evolution started with the first cell occurred around 550 to 600 million years ago. Biological entities in various forms came and went. Homo sapiens came into existence less than 4 million years ago. Among all the changes, Homo sapiens evolved physically with an enlarged brain, a separated hyoid bone for producing complex sounds and possibly as discovered lately a specific gene for language. The introduction of language is less than ten thousand years. The introduction of the concept and the word of consciousness does not negate the existence of consciousness since creation though.

All biological entities are made up with fundamental elements of matter. The body plans are different, but the functionalities of cells are the same. An individual human consists of about 37 trillions of human cells with equal numbers of symbiotic nonhuman cells and microorganisms. Science has explained how cells, organs and systems that act together to enable all biological entities to be conscious and consciousness in great details. Yet, there are still many unknowns. The constructions continue.

Being alive involves cellular activities in generating many forms of energies, chemical, electric, kinetic, heat, etc. They are not only keeping all the body parts functioning internally but also enable the entity to interact externally. Thus, consciousness is the word like the word energy, the capacity and ability of being alive. Consciousness, therefore, is the sum of the energies generated that enable an entity to be alive.

Being alive is not static. Interaction with the environment requires an entity to 'think' and to 'remember', retaining the experience for future interactions. Thinking can be expressed in brain wave or electric pulses, however, the nature of the energies that enable thinking is not known, but in general it is from the energies generated by all its body parts of an entity. Thinking is also easily influenced by the microbiome in the guts, symbiotic microorganisms and environment. Not only that it is also projected in energies in non verbal form. For example, all lovers are more or less attracted to each other through this non verbal thinking, and two male entities butting their heads for dominance and mating right is another. The energies that enable an entity to be functional are also retained as memory. Although science has identified many correlations in the mechanism between storage and retrieval, but they are superficial. The fundamental mechanism is not possible because the storage of consciousness is yet to be solidly identified. However, it is safe to said that it is stored internally in the entity and even possible in the universe just as the thinking used in non verbal activities. People do bring back stronger memories at places have been. After all, not all forms of energies can be stored, can they? For people wonder why some children are reported to have ancient knowledge, the universe hypothesis for memory may be the answer, but the heresay certainly requires verification. Nevertheless, memory is reconstructed every time in the thinking process and is corrupted and losing its details against time. Surely, it is not for the little green man to generate free will. Moreover, human is not a computer, thinking is not a software with rigid algorithms and consciousness is not hardwired into an organ or cells. It is probably best illustrated that

when one plays sports or concentrates in an activity that requires significant energy generation, one does not think much; while one sleeps that requires the least energy generation often is the eureka moment in thinking. Everyone must have the experience that a melody pops into existence for no reason and effort in energy generation.

All in all, consciousness is the expression of being alive and like the energy in the modified equation $E=mc^2$ that comes from the actions of the cells into its complexity. The word, soul, is used by many humans with human centric imagined reality can be related scientifically in the final moment of death, i.e., the soul leaves when one takes the last breath (the release of energy required for the breath) although the entity is not completely dead until all the cells cease functioning and die. Nevertheless, it does help to give a bit of comfort for the believers that soul exists. Although there is no scientific evidence, the Chinese medicine and tai chi apparently have been able to manipulate the generated energies for being. The energy hypothesis does provide the practitioners a claim for the word, 氣. The Chinese word for some kind of energy.

Science has identified and answered many questions regarding the when, where, what, why and how about consciousness, but the sophistication and complexity remains unresolved. Moreover, without self reflection of what it means to be human, especially the consequences of actions relative to what is necessary for survival. The word, consciousness is shallow or even hollow in terms of existence for individual as well as the homo sapiens species itself.

Thoughts and Reasoning

Thoughts and reasoning evolves with imagined and constructed realities throughout the written history of mankind, Aristotle believed that the heart was the center of the soul and the source of thought and emotion. The brain is then credited and replaces the heart. Science details even further the correlation between stimuli, sensory organs with the physical brain. As knowledge evolves, the correlation is actually back down to the cellular functions. Yes, the brain may be the key driver. However, the neuropeptides linking all the organs, the microbiome in the digestive system or even the symbiotic non human microorganisms are also involved. In other words, thinking and creating thoughts, involves the whole being, and Aristotle was right, the heart as well.

Thinking comes from various forms of energies generated from the entire being and influenced by symbiotic organisms and environment as well as the recalled and reconstructed memories. Thoughts are formed continuously. New thoughts come with changes in both external and internal stimulus(i) as well as the environment. After all, one cannot think straight with an upset stomach, discomforts caused by the cohabiting creatures or shivering in the cold, can one? People in coma or high on drugs do not stop thinking as long as they are not dead.

To illustrate, a sun flower orients itself towards the sun for synthesizing sugar; an amoeba differentiates undigestible matter by expelling it; a male mantis follows the chemical signal for mating while the female mantis having it for food at the same time; and champs use twigs to fish out termites for food. As the biological entities increase in complexity of their body plans, their activities increase in complexity at the same time. This progression is beyond survival only. As demonstrated in orca and elephant, they show attachment to their dead. In the rising star cave system, Homo Naledi, with a body plan very similar to Homo sapiens with only a third of its brain size existed almost 100 thousand years earlier than Homo sapiens, buried their dead with great effort deep into the cave. All these examples show that they are conscious and being alive. They are consciousness with the ability to 'think' for being alive.

With words, humans call the process of thinking and creating thoughts, reasoning and when the reasoning stops and action(s) taken, decision making. The amount of thinking and decision making progresses with the accumulation of life experiences in memories. Babies do not do much reasoning and making decision in

seeking milk. The terrible two would make eating a disaster affair in reasoning and decision making. Adults are certainly doing much reasoning and decision making. The trigger(s) are the stimulus(i). In other words, reasoning and decision making is universal for all biological entities. Yet, human centric thought believes that human is different from all other biological entities with specific capability in decision making with the word, will and even add the word, free. That is to say that humans are free from the constraints of stimuli in reasoning and decision making. They have a choice. It is obviously a fantasy and an imagined reality.

The neuroscientist, Sapolsky, says that there is no free will. Apparently, he supports that all biological entities act by their predetermined biological make ups. He is essential correct. However, initial conditions that create the universe and all biological entities are absolutely free even though everything is predetermined afterwards.

Conversely, another neuroscientist, Kevin Mitchell uses cognitive state, belief and desire, etc to support the existence of free will. I did not read his book, but cognitive state is given by the initial condition to all biological entities. The ability of humans amplified by using languages, fundamentally is driven by the energies generated by the cells same as all biological entities. Belief and desire are conceptual words come from life experiences retained as memories used as internal stimuli. They come from what a human perceived, imagined and constructed. They do not come from any other sources. Babies have no beliefs only desire for milk. It is predetermined, not will nor free. Moreover, how do we know that other biological entities do not have beliefs, desires or dreams?

These two learned gentlemen have debated these two words on the basis on what the meanings of these words associated with their different consciousnesses accumulated since birth. Obviously, it is hopeless to be agreeable.

Languages are not only just essential in the expansion of human activities, but their thinkings as well. The very first thing that every new born is a given name. A child of three to four year old firmly identifies with this given name. Try it and the child will cry if you suggest for a different name. Subsequently, the identifications expand from family, into the whole wide world of alternative realities. Depending where the random event of a new birth, the individual is conditioned and programmed according to the alternative realities created at the location in the programming language, beliefs, traditions and cultural practices. Unfortunately, human activities have expanded to such degree that every individual can only be conditioned and programmed within the confines of the locality. Increased mobility does give more opportunities, however, humans are still limited by their attributes to learn from the ever increasing alternative realities.

For example, in isolated gatherer and hunter societies, thanking the prey for sacrificing its existence to become food is dominant in the thinking, i.e., the existence of the prey is no less important than the hunters themselves. When the availability of food becomes easier in the agricultural and tribal societies, this thanking and practice disappeared. Instead, humans were conditioned to raid neighbouring tribe for produces or kidnap enemies for slaves to produce. Today, humans go to supermarket. Tribes become nations. Humans cheat and steal resources and labours with monetary system instead of raids. The alternative realities are so very complicated and convoluted from the reality created by the initial conditions. Humans become self centred and distance themselves from all other biological entities.

Human Centric

The self centred thinking is further programmed and conditioned to the believers and entrenched in the cultural practices such as given in the Bible, Genesis 1:28 – Then God blessed them, and God said to them, “Be fruitful and multiply; fill the earth and subdue it; have dominion over the fish of the sea, over the

birds of the air, and over every living thing that moves on the earth.". Other religions and beliefs may be different in context, which I have not studied. but in general, human centric thoughts are dominant in evolution terms. For instance, almost all cultural and traditional practices establish the importance of the surname and must be carried forward to the future generations.

This is best illustrated with the history of philosophies and philosophers, which centers thoughts on the conditions of human. Other biological entities and the environment are just sideshows for exploitation. Present days, environmentalists acknowledge that humans are the causes but the solutions are never in the reduction of human population. The oppositions certainly insist that humans are never the problem and can overcome whatever comes. Individuals are conditioned as illustrated by Pavlov accordingly with a name and their mode of existence, i.e., Israeli, Palestinians, Communists, democracy, billionaire, homeless, etc. Today, thoughts that humans are just one species among all species co-existing in the one and only biosphere on earth are scattered only in pockets of native tribes only.

Perception and Reality

The concept of the word, reality, exists with all biological entities that are conscious.

However, every entity is unique with its own reality in accordance with its given attributes. Individual attribute within a species are homogeneous with only minor variations, thus, the word, species. All members of the species sense and act similarly. Attributes differ significantly among species. For instance, plants have attributes to sense lights, water, oxygen, nitrogen, chemical signals, etc. Animals, on the other hand, have attributes for vision, smell, sound, etc.

No entities are capable of sensing exactly as what is 'real' as far as conceptually is concerned. Sensory input takes time to be distributed and processed as a part of the 'thinking' process. 'Thoughts' are formed with projections, guesses, anticipations from senses in conjunction with recalled fading memories. Thus, what the consciousness of any biological entity does is nothing more than an approximations of the 'real' reality, but it is the best and closest as far as the word, reality, is concerned. Humans create concepts of past, present and future, but technically their thinking is delayed from their senses. As such, present is but an illusion.

Nevertheless, the universe does as it is created regardless.

Intelligence

The alternative reality world demands every human to be conditioned and programmed to various degrees with a consciousness to survive not just physically as in the reality world, but functionally competent with a consciousness that is capable of make a living. The word, intelligence, is given to the processing capacity of the consciousness. As such, The word, intelligence is not only used to differentiate human from other biological entities but among humans as well.

However, intelligence is not just the processing power without linking with actions and results from exercising this power. Indeed, humans have demonstrated the processing power in the alternative reality world. On the other hand, the reality worlds before the asteroid struck the earth 65 millions years ago, the era of the dinosaurs lasted around 150 million years and the eras before dinosaurs in between natural mass extinctions lasted also with significant spans of time. The current era dominated by humans has shown that humans are the cause for extinctions of many coexisting specieses as well as significant death of fellow humans in conflicts. It is only about 10,000 years since the introduction of languages. The probability that the demise of the Homo sapiens itself without encounter a mass destruction event in nature is considerably higher than all the

historical eras. The collective "intelligence" of the Homo sapiens species and the meaning of the word is not just questionable but crucial in the determination how long of this era lasts. Is "live fast and die young", the intelligence for Homo sapiens?

Conclusion

Humans sense their existence as well as the existence of all other biological entities and the universe. Humans have evolved with language ability to exchange their thoughts. They express their thoughts from what they have sensed, thus the concepts, existence and reality. Although there are multitudes of interpretations in the when, where, what, why and how that existence and reality exist, the fundamental concepts created by humans exist without these words, existence and reality, and without their creators, humans.

The reality for all biological entities is what they sense as created by the initial conditions. The reality that humans sense before the introduction of language is very similar to other biological entities. The reality that humans sense after the introduction of languages is the altered reality with the addition of what humans imagined and constructed.

Human has interrupted the reality all other biological entities which exist according to the rhythms of nature as created, and forced them to exist in the altered reality created by humans. Extinctions are recorded since the introduction of languages, close to 800 mammals and 30,000 species estimated by E.O. Wilson every year. Whether they have consciousness to know the meaning of their existence is obviously not for humans to know. However, it becomes clear when humans question their own existence.

Humans have altered their reality in an unimaginable speed and complexity. They no longer exist according to the rhythms of nature but the rhythms of their constructed reality, such as calendar, job, stock exchange, sport and entertainment events, vacations, etc. however, the choices of physical and mental activities are simply beyond the capacity for each individual to handle. As such, various purposes, objectives, goals become the reality of existence. Humans exist not just in the now, but the past and future as the reality constructed. Nevertheless, some do wonder about what is it all about when their days of existence deminishing at the end.

It is not possible for any one to define the meaning of existence since it is very much a unique experience for everyone. However, it is easy to compare in broad terms the difference in reality and the altered reality in some of the concepts that all humans appear to treasure, freedom, success and happiness.

it is apparent that all biological entities have much less constraints to existence. Certainly, they must be lucky physically to avoid becoming preys. Other than that, they are pretty much free from other physical and mental constraints as long as their needs are met to continue their existence until death. On the other hand, humans have created too numerous constraints with their constructed reality. They apply these constraints, exploitations freely to all other biological entities, but also to their fellow humans. As such, it is evident that the degree of freedom for altered reality is far less than the reality created by the initial conditions. When people crying for freedom and liberty, they should put it in prospective.

The concept of success in the simplest form means the completion of a task. All biological entities exist hinged on the success of finding enough food and mate(s) for reproduction. The predator and prey ratio is such that species are more or less successful in their existence. Humans altered this balance. They are the top predators with unchecked population growth. They alter their environment beyond their needs to survive. Their successes are too numerous to count. In general, they increase their life expectancy; their knowledge of the universe and all things within; their mobility and their ability to apply their knowledge for anything they want. Yet, all these successes are in the expense of

all other biological entities and the environment. As such, the concept of success has a different meaning to say the least. Nevertheless, each individual does have his or her own definition of success in existence. Personally speaking, the pursue of knowledge and applying them for meeting the needs is noble, while personal success in the expense of other humans to meet the wants in wealth, power and greed is not much the case.

The concept of happiness is very much like the concept of success. Yet, happiness derived from successes in the altered reality is somewhat artificial, especially like success that comes from the expense of others. Lasting happiness comes from understanding oneself and the nature of being human in the universe. Happiness also happens at moments that one is disassociated with the altered reality and touches reality as created. For example, lovers with their first glances, a baby born, immersed in an activity loved, etc.

Every individual can find his or her own meaning in existence and reality. However, no one can escape from the physical death. Like the concepts of the words, existence and reality, consciousness of a life lived is the memory, which is eternal even without the physical entity to reconstruct or recall. People who are craving for eternal life may find comfort in this. Memories do fade in time, but not lost.

My motive in writing this essay is nothing more than sharing my life experience. I do not find the why nor I fully understand the details about living and being in either physical or mental aspects. However, I think that some of my thoughts are worthy of sharing. I have reservations about the human centric thoughts and the impact of overconsumptions and overpopulations. It's just me. On the other hands, the predetermined path for Homo sapiens requires the awakening of all consciousnesses to alter. It is probably too much to ask. Nevertheless, a butterfly flapping its wing or a random spark of amber can be the stimulus for changes. I do hope that this essay can at least be a spark. Furthermore, I believe the education system whether it is the family or school should give every new born the understanding of what is being human to unit before indoctrining with beliefs, traditions and culture to divide. The world will be a better place to exist and the species would have a better future.