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# A Spiritual / Quantum View of Humanity's History

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Abstract: Through the examination of new anthropological, archaeological, and psychological data, we develop a spiritual view of prehistory and history of humanity. We then assert that this view is nothing short of a quantum sociology that integrates all the current sociological theories.

**Keywords:** Quantum science, history of humanity, prehistory, sociology, sociobiology, politics, civilization, democracy, worldview polarization, humanity's future.

#### INTRODUCTION

We have been inspired to write this paper by several NEW SCIENTIFIC BREAKTHROUGHS in anthropology and sociology:

- There is now definitive evidence that homo sapiens were able to self-domesticate themselves. It took a long time and perhaps culminated some 70000 years ago. The basic component of self-domestication is the ability to live in larger communities because one does not automatically respond with defensiveness or hostility to others, especially to familiar ones.
- Anthropologists traditionally defined the different human era of prehistory and history in terms of tool-making technology. That is Stone Age, Bronze Age, Iron Age, for example. Similarly, one-way sociological eras can be classified is as: huntergatherer, agricultural, and industrial/technological. New findings and study of archaeological artifacts and data may change these current definitions of human history. This data supports the idea that a phase aptly called the garden agricultural society characterized by tools like hoe and spade must have existed in the time between the hunter-gatherer and the agricultural eras.
- The psychologist Carl Jung discovered human beings not only have personal unconscious but also a collective unconscious—an unconscious that all humans can access both effortlessly (as in big dreams of universal symbols) or with some effort (as in creative explorations). As you know, our personal unconscious can easily be understood as the repository of our personal memories, some of them as repressed emotions that give rise to psychological disorders. Hence, the existence of the collective unconscious must be the repository of humanity's collective memory. However, nobody has been able to explain how such collective memory can be produced. In this way, this monumental discovery, though made as early as 1916, still remain controversial. And yet, this concept in psychology is extensively used, especially for understanding the phenomena of dreams, mythology, creativity, near-death experiences, etc.
- Historically, the influence of the collective unconscious showed up in the beautiful

periods of civilization such as depicted in the semi-historical mythologies of Ramayana and Mahabharata in India, in Pericles' Greece, in Confucius' China, in the Maurya period which peaked with Ashoka in India, in the Pax Romana of the Roman Empire, in the House of wisdom of Harun al-Rashid in Bagdad and in the Renaissance in the Franc and Austro-Hungarian empires among others. But how?

Roughly, our themes of this paper are as follows:

 We argue that self-domestication is a most important event in humanity's history. It was completed roughly 70000 years ago and is now identified as the cognitive revolution. It is what differentiated humanity from animality. Ever since humans have been part-animal part-human; in other words, we all are some form of the mythical creature Minotaur (fig. 1).



Fig. 1. Part human part animal. (Artist's rendition of Picasso's *The Minotaur*)

- However, we contend that humanity is evolving toward complete humanness. We propose that what happens in selfdomestication is a partial embodiment of the archetype of goodness; recall that goodness—the ability of being good and doing good to another is a human virtue or value; the spiritual context of such values we call archetypes as outlined further below.
- The cognitive revolution 70, 000 years ago brought us creativity using both

unconscious processing and conscious imagination. And the creativity was used not only in the affairs like toolmaking where the meaning-giving mind was used to give meaning mainly to the physical world, but also increasingly in the affairs of positive emotions, that is, the mind giving meaning to feelings of vital energy. This meaningmaking of feelings by the mind, led to transformation of the human person as well as of the human society.

- Homo Sapiens thus followed up the exploration and embodiment of the archetype of goodness and developed an extremely useful group characteristic that we call altruism which is the selfless helping of another in distress.
- At around the same period of time, human beings began to explore the archetype of beauty. Homo Sapiens demonstrated their creativity as depicted in the remarkably precise cave paintings at Chauvet, France that provides some of the first physical evidence of the ancient European humans over 30,000 years ago. This also provides proof that a quantum leap in human development had taken place. Homo Sapiens had become cultural beings and were reflecting on their own existence. having observed and recorded their observations as evidenced in their environment and clearly, acknowledging the creative archetype of beauty.
- Survival requires power and all living creatures explore it, since it is a defining archetype of living. Gradually, Homo Sapiens realized the need for people in leadership roles, and that began the search for people who could embrace and explore power with goodness.
- In the period, 70,000 to 40,000 years ago, Homo Sapiens established their supremacy over the other human species such as the Neanderthals, who had remained animals. Homo Sapiens must have sensed that they had to eliminate these other human species because interbreeding with them would be evolutionarily moving backwards. Perhaps when the conflict began, the Homo Sapiens, as part of the early form of intuition from the Supramental, could have been able to sense that the Neanderthals were a threat to their expansion of consciousness. They likely felt consciousness was progressing within Homo Sapiens and but not so in the

- Neanderthals. Hence, they must have been compelled to eliminate the Neanderthals, so that they could maintain this feeling of progress and realize the potential to further evolve.
- However, new evidence has emerged that the Homo Sapiens gene pool has about 2-3% of Neanderthal genes. The recent Netflix documentary, "Secrets of the Neanderthals" also sheds a new light on the history, culture and fate of the Neanderthals that describe recent archaeological studies that show that they had intelligence (like situational creativity in tool making) that the Homo Sapiens must have acknowledged, although primitive to theirs. This indicates increased altruism on the part of the Homo Sapiens in the later years of the conflict. This agrees with what we are saying. Homo Sapiens were driven by the need to survive but were also altruistic as described later in this paper.
- As humans began to settle down towards the tail end of the hunter-gatherer era, they developed primitive agricultural tools such as the hoe and spade, and families started growing their own food in their backyard. This began family-living and the exploration and embodiment of the archetype of love.

These archetypes—power, goodness. beauty, and love continued to be explored in groups, communities that today we call tribal. Through the help of a quantum principle called nonlocality (communication without signals), learning abilities developed in group consciousness and became nonlocal memory shared by the entire group. This principle explains how humans of this era reached a new height in their pursuit of meaning and purpose of the physical and vital experiences. This also then advanced humans into forming much larger groups whereas the Neanderthals remained in small groups which most likely was part of their downfall. Eventually, this memory was codified in what today we call the collective unconscious.

Societies in this era were thus distinguished by the expanding nonlocal connectivity of its people; in other words, the "we" of society that individuals made were able to communicate both locally via thinking and nonlocally via feelings. In the West, this nonlocal connectivity of people of this era is the source of the myth of the Garden of Eden; in the Judeo-Christian and Islamic tradition this is where Adam and

- Eve existed, and in India this era was mythologised as "Satya (suchness) Yuga."
- Somewhere around 6000 years ago, the primitive plough was discovered in a few parts of the world. Gradually this led to what we call the era of the rational mind. Rationality, via step-by-step logic, enables us to conduct our affairs with existent knowledge with less and less further exploration and embodiment of the archetypes. Thus began a general decline of perfection—a fall from Eden and Satya yuga. The drive toward the unity gradually lost out to the drive toward separateness. Societies grew and local identity of the individual ego with society grew as well. However, this increased local connectedness was a poor substitute for the perfection of nonlocal connectivity of the Garden of Eden.
- At some point, the idea of private property made its appearance, and a new archetype of abundance was being explored. Soon other archetypes such as justice, truth, wholeness and self, began to be explored.
- The idea that consciousness is the ground of all being was discovered in the Indus Valley civilization in India about 5000 years ago. This idea was independently discovered (in slightly different forms) in China by Lao Tsu, by Jewish mystics of the Kabbala, by Socrates in Greece, by Jesus and Mohammad in the middle East (the last one in 610 CE). It is interesting to note that this realization of consciousness manifested in the proximity of each of the four River Valley Cradles of Civilization.
- These discoveries led to spiritual wisdom traditions. The archetypes were now seen as spiritual perspectives (called variously gods and goddesses or angels.) Exploring them leads us to realize consciousness as the ground of being in a state that identifies as the spirit within us.
- Soon after, or in a matter of a few centuries, the spiritual wisdom traditions gave away to the major religions that exist today. In religions, (except for Buddhism,) the idea of consciousness, the ground of being, is generally replaced by the concept of God, a Being which was more and more seen as separate from the human being. Archetypes were now seen as God's virtues which we should emulate by following moral codes like the ten commandments.

- In the agricultural era, until the late eighteenth century, human societies have been ruled by explorers of power in the form of rulers, kings or dictators together with a religious oligarchy. In this era, we also see many imperial dynasties in various parts of the world. Civilization is found to display ups and downs depending on the amount of exploration and embodiment of the archetypes, some of which were heavily influenced by religion.
- We show that the ascension of a civilization to a new height was associated with what may be called one or a whole series of benevolent rulers; this was then followed by descension. This pattern is illustrated in the history of the Roman empire in the rise of the stable Pax Romana, see later.
- Beginning with the sixteenth and seventeenth century, modern science appeared on the scene in Europe. From the beginning, it was a revolt against religion. Science brought about a change from the agricultural era to the industrial era. It was also around this time that Europe became the center of power in the world.
- The influence of science and industry created the three institutions that defined modernity: capitalism, representative democracy, and education free of religious dogma. In the nineteen and twentieth century, many nations changed from monarchy to democracy. The influence of spirituality and religion (the two were more and more seen as the same thing) on the society began to decline. With liberal secular education, religions more and more were seen as a regressive imposition of unscientific moral rules on the society.
- Soon the society changed from modern to post-modern characterized by scepticism about idealistic spiritual values. Eventually, this led to scientific materialism, the "everything-is-matter" philosophy, which alas became the metaphysical basis of science. Religions reacted and this led to the worldview polarization of religion and science that we see today in America and elsewhere. This polarization threatens all the three great institutions of modernity.

In the rest of the paper, we will elaborate on these themes in the same chronology with one exception. For the sake of contextual readability, we will introduce the quantum paradigm used to interpret the historical events in the very beginning. We will also consider the society's ways back to spirituality.

## QUANTUM EVOLUTIONARY DEVELOPMENT

Following Darwin's legacy and the Neo-Darwinian construction of our past, establishment biologists have a confused view about where humans depart from the animals (from which humans have descended) toward transforming to where we are today. Neo-Darwinists cannot incorporate in their theory even the idea that evolution proceeds from simple to complex, an idea that fossil records clearly verify; progressivity in evolution contradicts Neo-Darwinism. The fact is that there is a biological arrow of time; by looking at the fossil record we can distinguish the past from the present. Nor do biologists agree that there is purpose in evolution, that purpose can produce evolutionary pressure from the future. Consequently, the establishment view of biology is that human beings are animals and will always remain animal-like in spite of all their accomplishments. Establishment sociobiology is the story of how human societies are governed by humanity's continuation of animal instincts and impulses.

The underlying problem is this: the establishment theory of evolution, Neo-Darwinism acknowledges only one simple drive that propels evolution—survival. This drive is causal. This notion agreed with the prevalent Newtonian worldview: all changes are causal, made by causes, cause first, then effect. Newtons first three laws of motion and reaction.

But Newton's physics has now given way to quantum physics. In quantum physics, causes only produce potentialities. Consciousness creates reality by choosing actuality from all the potentialities available. This choice is purposive: Consciousness wants to see itself in manifestation<sup>1, 2</sup>.

When we look at life and its evo-devo (evolutionary development) from a quantum physics and primacy of consciousness point of view, we discover that there is a second drive that evolves life and gives biology its arrow of time: the drive of purpose and the meaning that comes from it. The purposive drive works at the macrolevel, via development of expressible possible forms. The adaptation to environmental changes provides the causal impetus for the selection among the forms at the macrolevel to ensure survival. Evolution is evo-devo (evolution and development going hand-in-hand), both causal and purposive, let's

call it *quantum evo-devo*<sup>3</sup> because without quantum physics it is impossible to build a theory for it<sup>3</sup>.

The theory proceeds along both Darwinian and Lamarckian lines of evolution. Lamarck's theory of evolution is that an organism can change based on how it is affected by its environment and activity, which can be passed onto its offspring and modify its organs, so they are improved. Evolution proceeds through gene mutation at the quantum microlevel<sup>4</sup> producing quantum possibilities for consciousness to choose from; this is followed by Lamarckian development at the macro-organ level where conscious choice produces a new organ with purposive form and physiology.

Old establishment biology is inadequate for a theory of evo-devo. Nor is it capable of differentiating life from nonlife. To both ends, we have developed "quantum biology" based on quantum physics and the primacy of consciousness

The idea of primacy of consciousness—consciousness is the ground of all being—is also the idea behind spiritual wisdom traditions which too gives us a theory of purposive evolution<sup>5, 6</sup>). Transpersonal psychology also builds on primacy of consciousness and a theory of purposive evolution based on it has been proposed as well<sup>7</sup>.

The theory of quantum evo-devo integrates all these earlier theories—the causal theory of Neo-Darwinism as well as the purposive theories. Quantum evo-devo allows us to reconstruct the past including humanity's prehistory in a new way. We find that some features of the past have been misunderstood, other features have been missed altogether by the existing theories; this we correct.

There is no doubt either that we are part animal. Our triune brain<sup>8</sup> has three concentric spherical shells of which the cortex is the top layer; we still carry the mammalian brain as our mid-brain and the reptilian brain as our hind brain (Fig. 2) after all. And yet, unless you have a dogmatic axe to grind, it should be obvious to anyone that the question is not "are humans animals?" but "when did humans begin to overcome their animality partway?" and "when will humans become entirely human, if ever?"

In this paper we argue that the evolutionary drive of meaning, and purpose propelled us first to self-domesticate ourselves and then to develop the semi-instinct of altruism. In the process, we were able to change the mammalian brain we inherited. Becoming half animal-half human, we

developed societies bigger than those of our immediate ancestors—the chimpanzees. As we started using the neocortex to explore and embody meaning and purpose, we became more and more free of animality. We developed bigger and bigger social identity; we developed civilizations. This drive for meaning and purpose was the trigger in the course of evolution that allowed the human genus homo to move from the earlier human form to the more advanced Homo Sapiens when their material bodies were ready.



Fig. 2. The Triune Brain

Civilization, however, has been an uphill battle for us. We go up some, and then fall down much like the Sisyphus myth. Sisyphus would take a boulder up the hill only for it to come down, that was his punishment.

Our mythology labelled this battle as one between good and evil. The new science is giving us the underlying drives: one of meaning and purpose, the one that drives us toward larger and larger social identity; the other primitive one is of survival that tries to take us back to small group-identity. Does this bring us to the present where we are still caught in between these two drives?

How to interpret the present depends on our worldview. Since we live in a time of deep worldview polarization, quantumizing science helps us to re-evaluate the whole situation and develop an integrated worldview. From this integrated worldview, we can say unequivocally, that the answer to the question above is yes, we are still in a battle, but the battle has become more complicated. The ups and downs of the civilized societies we try to develop continue. Will this ever end? Will we ever achieve a new age of ascent only of civilization?

The increase in the download speed of information through social media has almost become a source of constant noise and conflicting aspects of other people's ideas, further amplified by AI. Perhaps this will free humanity to find their own meanings.

The predictions for the future are widely different as well according to all the

different existing theories, some bleak, some optimistic. Quantum evo-devo with its integrated worldview has its own prediction for the future of humanity, and it is free of conflict. You will see.

#### THE FUTURE OF HUMANITY

In Neo-Darwinism, humans are just like any other animals, driven by the survival need. Regardless of whatever the humans have accomplished, they will always remain as animals, domesticated at best. There are also purposive theories in which purpose introduces higher needs in the equation for human evolution. By satisfying these needs, humanity rises above and beyond their animal ancestry. In some theories, humans become half animal, half human; in other theories, they are half machine half human. In scientific materialism, both animals and humans are fully machines, biological machines—robots with experience. In the quantum reconstruction of sociology, we categorically negate the last alternative. We find that the current human is indeed a mixture of machine-ness, animality, and humanness. But since there is lot more humanness still in potentiality, in the future humans will become wholly human.

Are humans superior to other animals? For most people the answer is a no brainer, of course. Isn't it obvious that we humans dominate the world today, even control the environment to some extent. Today, our thoughtless actions are exterminating many animal species. Bad, but doesn't it confirm our supremacy?

Most biologists do not agree that humans are superior. The biologists' confusion come from their adoption of a limiting worldview scientific materialism. All is matter moving and interacting in space and time; all movements are continuous, all interactions are local, via signals. As far as the physical body is concerned, the only superiority humans have over most other animals is their large brain. We are fortunate to have developed a large brain to body mass ratio. But how can this make humans superior?

It can in quantum science within the primacy of consciousness, a big brain can manifest consciousness in superior ways that allows new functions. With the addition of mental function, the brain develops better cognitive ability, the capacity to process meaning. It is the addition of mental power over and above the animal physical power that makes humans superior.

As mentioned above, biologists, following Darwin's legacy, believe only survival is the driving force for evolution. Additionally,

they think survival is a material quality. So, these biologists incorporate mind in their philosophy by claiming that having a mind gives human better survivability, nothing more. At some period of biological history, dinosaurs ruled the world via their physical supremacy; now humans rule the world through mental supremacy. But this too shall pass! We cannot predict the future. Maybe humans will annihilate themselves via their mental power and other creatures will rise. Perhaps it will be a renegade force of AI.

The popular historian Yuval Harari<sup>9</sup> sees all this in a third way; he uses the conceptual lens called humanism to look at the situation. Humanism recognizes the specialness of humans, homo sapiens, from the get-go. Humans have higher human needs beyond survival needs. There is a sense of purpose, and it is derived from higher human needs. According to humanism, the drive to fulfil these higher needs have given us social, political, moral, and even religious values.

Harari recognizes that the human domination of the world today goes back to roughly 70,000 years past, when humans developed the ability of imagination, a special gift of the mind's ability to process meaning. He declares that this is when biology ends, and humanism begins to dictate human affairs. Biological evolution theory may provide genetic explanations for the additional wiring needed in the brain for enabling this extra cognitive prowess, but what happens subsequently is beyond biology.

The main point here with which we all can agree is that humans are special and beyond biology of convention because they are not only driven by survival needs but also by higher needs, something that the psychologist Abraham Maslow<sup>10</sup> called hierarchy of needs. He initiated transpersonal psychology movement saying that these needs are rooted in our spirit, a being beyond our ego. Humanism, on the other hand attributes these higher needs to human nature itself, not the result of some spiritual supernatural connection. In this way, humanism breaks with Neo-Darwinian biology but does not explicitly challenge the premises of scientific materialism either.

The reader should note however, that according to quantum physics verified by experimental data, *nature consists of a two-level reality—potentiality and actuality*; the one-level reality description of nature is false, accepting it is dogmatic ignorance.

Spiritual wisdom traditions and transpersonal psychology are based on spiritual metaphysics, humanism tacitly on the

metaphysics of scientific materialism. The difference between them is that spiritual traditions and transpersonal psychology are based on a two-level view of reality (unconscious being transcending space and time and conscious immanent being in space and time) whereas scientific materialism sticks to a one-level (matter in space and time) view of reality. In philosophy, the former view is called idealism, the later realism.

The next question is, where does this drive of meaning and purpose take us humans? What is in our future? The response to this question is where humanism and Harari's theory and quantum evo-devo diverge and give very different answers.

Harari brings us bad news! Scientific materialists have gone on indirectly accepting the importance of values in maintaining civilized existence for a time, but now are in the process of surrendering to a new information-based paradigm which has no scope for values, which bluntly professes that bio-machines and silicon machines are all information processing machines, and consciousness is just intelligence. In a sequel to his 2014 book, Harari<sup>11</sup> leaves you with an intriguing question, "what will happen to society, politics, and daily life when nonconscious but highly intelligent algorithms [that silicon machines use] know us (bio-machines) better than we know ourselves?" How can algorithms predict the unpredictability of the internal workings of the human mind with accuracy? You may wonder. They can if we are machines as well, bio-machines.

Harari is referring to the new generative artificial intelligence (AI) programs that we are now learning about. You may also be aware that the idea of machine take-over frightens many intelligent people.

If humanism was the answer to why we have the drive toward meaning and purpose, then our fear would be legit. Values ultimately would be pretend values (as in existentialism) and sooner or later, the jig would be up. People wouldn't pretend, they won't see any need to if science says we are robots with experience with no causal efficacy.

But of course, there is that other alternative—transpersonal psychology's answer to higher needs rooted in our spiritual transcendent level of being.

If you have read Amit's work, *The Self-Aware Universe*<sup>1</sup>, then you know that the quantum science began with the demonstration that the metaphysics of idealism that transpersonal psychology is based on is fully scientific. The science has come from quantum physics. Quantum physics

integrates science and spirituality; it scientizes the idea that Consciousness is the ground of all being which was once regarded as metaphysics. Quantum physics is the physics of possibilities; both material and nonmaterial objects are possibilities for consciousness defining the domain of potentiality. Observation brings about the collapse of possibility into actuality, the domain of actuality.

The ideas of spirituality, transcendent domain, nonmaterial entities, scare a lot of today's people, especially in the West. This is partially due to the Cartesian dictum, "I think, therefore I am", which erroneously roots the self into our thinking mind. Partly this is because of ongoing propaganda against anything supernatural, being old ignorant mythical beliefs that we should outgrow of. It is also because of a superiority complex: idealism has been cultivated mainly in the East, countries like India, China, Japan, and the Middle East; Western civilization which as recently as a few decades ago ruled over the East cannot possibly be allowed to be degraded by importing such ideas.

There is some validity to the last fear. Indeed, the dominant interpretation of Indian spirituality is that the immanent reality is illusory; the purpose of human life is to see through the illusion and be liberated. Furthermore, Indian spirituality speaks of the drive toward purpose and meaning as a spiritual drive towards liberation and regards it as personal. This interpretation of Indian spirituality does not seem to care for social evolution much at all.

However, be assured. Quantum physics and the new science based on it does not support this brand of Indian spirituality. There is a second brand of Indian spirituality based on bringing the fruits of spiritual wisdom to serve the world; this brand propounded in the Bhagavad Gita, Mahayana Buddhism, and in Sri Aurobindo's work, includes some very relevant sociology. In the same spirit, in the book Quantum Spirituality, the authors Goswami and Onisor<sup>12</sup> have formulated a new spirituality where the drive of meaning and purpose takes us toward the exploration and embodiment of spiritual values we call archetypes, values such as power, abundance, beauty, love, goodness, truth, justice, wholeness, and self. Eventually, the embodiments lead us to wholeness, both personal and social, a being without conflicts or struggles with dichotomies such as good and evil.

You, all of us who can, have a role to play in bringing about this long-term glorious

future of humanity, the era of the intuitive mind and the freedom to dispel conflict. Our immediate task is neither to succumb to negative emotions nor to indulge in machine-like rationality. You, we, must transform our existing ways, and it takes work. Fortunately, transformation has its rewards too; it lifts us to higher and higher happiness and intelligence. So be it, a path forward for humankind.

## WHO ARE WE? MADE OF CONSCIOUSNESS OR MADE OF MATTER OR INFORMATION?

Throughout our history till the tail end of the twentieth century, nobody knew how to make a science of our selves. We developed a science of objects starting about five hundred years ago and buoyed by its success in producing technology, more recently, we have been trying to make even models of consciousness in terms of objects. The basic idea is scientific materialism: everything is object, material object.

We have tried thinking of consciousness as mere operational convenience, a way of expressing what is happening as if the subject "I" of the expression has no role to play. We have vainly tried the idea that the self/subject signifies merely the subjective qualia of our experience. We have insisted that what we call the conscious self is nothing but a robot with experience. We have tried replacing the concept of consciousness by the concept of intelligence. All this has gotten us nowhere.

The latest in this line of thinking is that all phenomena are about information and information transfer—phenomena of computing machines and biological being are no different.

Biology tells us that there have been quite a few human races in our past constituting the genus homo. We, homo Sapiens, won the battle with all the rest, we virtually eliminated them roughly 40 to 30 thousand years ago. But soon, the information theories predict, the artificial intelligence machines may challenge us biological intelligent machines. Who will win? As mentioned above, people are already having nightmares about that; the late great physicist Stephen Hawking is perhaps the most famous among them.

But is this worry justified? Does it make sense or is it creating needless fear? It should be evident that we humans have a self that we rely on that is not a merely ornamental addition to what our senses tell us is happening. In his autobiography, *Disturbing* 

the Universe, the physicist and futurist Freeman Dyson<sup>13</sup> says that we do disturb the universe as we change our view of the universe and act accordingly. Most often we disturb in little ways as when instead of the road we usually travel, we choose a slightly different road to travel to our destination. But sometimes, when we can let go of the idea of a preconceived destination, we arrive at a new place that can disturb the universe in a major way and that certainly changes our worldview as well. Steve Jobs for example introducing a unique new interface and architecture with iPhone, changed the worldview of the cellular phone market and pretty much crushed the previous manufacturer. Blackberry.

More recently, we have discovered much more about ourselves in the form of integrative medicine and depth and transpersonal psychologies as described in The Quantum Doctor<sup>14</sup>. Finally, thanks to quantum physics we do have a science of our self—the experiencer/subject of the objects of our experiences. It is now clear that we have got it all wrong in our imaginations and social experiments based on them in the past few decades: the world is not made of matter. The world is made of consciousness as intuited millennia ago by the ancient spiritual thinkers. We now know that quantum physics is the science of consciousness and its possibilities which comprise both matter and nonmatter.

Consciousness and its possibilities are a Oneness that comprise a domain of reality that we call domain of potentiality and depth psychologists call the unconscious. What we experience is the embodiment of the material as well as the nonmaterial. Material when actualized in space and time, the domain of actuality, gives us the biological hardware in the eventual form of the organs. The embodiment of the nonmaterial possibilities is the software that consciousness uses as blueprint to endow matter in our organs with suitable form and functions. Some of the organs give us the vehicle for the embodiment of consciousness itself, the self that when conditioned by experiences, become the ego that we all are familiar with. Hence the people in the material world have access to consciousness through their egos and that determines whether it expands (to include others) or contracts (and becomes mecentered). More on that later.

Much of the matter is actualized in forms that do not act as vehicles for manifest consciousness and its functions—this is the non-living. The embodiment of consciousness and the capacity of subject-object split

experience is what distinguishes the living from the non-living.

We experience the material manifestations of both the living and the non-living as outside of ourselves. That is, outside of the vehicles we identify with, since at the macrolevel, matter tends to become Newtonian. The nonmaterial manifestations we experience inside because they are quantum at all levels of existence<sup>15</sup>.

The science of actualization of possibilities in the world of manifestation is called the quantum measurement theory. The entire science within the primacy of consciousness we call quantum science of consciousness and experience, or quantum science in short.

In this way, we realize that the world we experience is merely a snapshot of the world of potentiality. The problem, that gave rise to our establishment science, (scientific materialism,) and its grim view of the future, is that these instantaneous snapshots of material objects that we experience outside of us mostly look the same whenever we look. Whereas our snapshots of the nonmaterial objects inside of us keep on changing, creating the illusion that the movement of the material objects do not depend on our consciousness. The fact remains that the objects of our inner experience change between snapshots; but the scientists explain this away as changes in the states of the material vehicles, of no consequence by themselves.

It is erroneous to take the snapshot experience as reality. For example, a snapshot experience of the earth makes it appear to be flat. Primitive people did make a flatland view of the earth instead of the sphere that it really is.

In this way, think of the materialist view of the world as an erroneous flatland view. Yes, it has been useful; it has given us useful technology; but it has not given us any knowledge of ourselves and the scope of our subtle inner experiences to change ourselves and our societies.

It should be clear by now that the basic emphasis of humanism is correct. Today's humans can bring the archetypes into embodiment in us, and humans have the ability to transform and actualize its potentiality. Humanism begs the question, but quantum science makes it explicit. Our potentialities are potentialities of a ground consciousness that presides over the domain of potentiality outside of space and time. In the process of embodying the archetypes, we also embody the ground consciousness into a two-level self-modality in the cortex.

A note in passing. The philosopher David Chalmers, at a consciousness conference in 1994, challenged the neuroscientists with what is now called *the hard question*: "How can a science of objects answer the question, how does experience arise?" Since experience also has a subject pole and a subject cannot possibly be explained when you only have objects to work with. One neuroscientist made a bet with him that neuroscience will stand up to the task. Recently, it has been reported that this neuroscientist has conceded that he has lost the bet. Consciousness is required for explaining experience.

## CONSCIOUSNESS AND ITS EMBODIMENT: TANGLED HIERARCHY

Elsewhere, I (Amit) have shown that to remove paradoxes of quantum physics and quantum measurement theory we need a science based on the primacy of consciousness, not matter. Matter and nonmaterial substances both must exist as quantum potentialities for consciousness to choose from. Conscious choice leads to all of our known experiences: sensing (matter), feeling (vital energy), thinking (meaning), intuition (archetypes or the precursors of human values), and the self (the I-experience, "I am the experiencer").

This takes us to a key fundamental of quantum science and the view of our reality that we create. The experience of the pure self or the pure I-experience arises out of the embodiment of consciousness (the one and only ground of all being) in matter in the form of our brain's neocortex<sup>1</sup>. It is pure "I" because it has "no-me." Me is the I that I can look at. The pure I which we call the quantum self sees everything as a part of itself; it is expanded with no boundary to speak of. Further dependent co-arising or conditioning due to repeated reflection in the mirror of memory explains our contracted me-centered ego experience of contracted consciousness with boundary—our cortical brain.

You may know the Sanskrit word ananda which stands for joy or happiness. Etymologically ananda comes from the Sanskrit word ananta which means no boundary (anta means boundary, an is negation). The quantum self is full of ananda; the ananda is more and more compromised with more and more dependent co-arising. It is hardly experienced in our ego self.

We humans have two selves in the way consciousness embodies itself in our cortex. Naturally, we also have two personal drives for development that the psychologist

Stan Grof has identified. Holotropy, the drive for unity (its wholeness) where the motivation is provided by ananda, the happiness that comes with expansion of consciousness. The other drive toward separateness is called Hylotropy. What is the motivation for this drive?

The ego is motivated by the reward-punishment process. If you accomplish and aggrandize your "me", you get a reward. Satisfaction in the form of dopamine in your brain. If you don't enhance your "me", not only do you not get dopamine in your brain, but you may also be punished with the stress hormone of cortisol in your body!

So far, we have been talking about the self-experience in the cortex. Currently, most people believe that cortex is the only place where the self is. But many women think otherwise. They believe the experience of true love must involve a self at the heart. Spiritual wisdom traditions support this idea as well. Many of us, including some who are men, have also strongly felt the impact of a situation involving love that it can be so strong that it overpowers rational thinking and what we may be perceiving as reality at that emotional moment.

In 1980, the artificial Intelligence researcher Doug Hofstadter wrote a book 16 in which he proposed a recipe for building a conscious computer. He called the recipe the tangled hierarchy. In contrast, the reductionist nature of matter is a simple hierarchy because cause flows only one way—bottom up. Two levels form a tangled hierarchy when they are connected by a circular cause; in other word they cause each other.

An example makes it clear. Consider the sentence *I* am a liar. *I* and liar are called subject and predicate respectively in grammar; the predicate refers to the subject according to the rules of grammar. However, here when the predicate refers to the subject, there is a contradiction, If I am a liar, then I am telling the truth. Go back to the subject again, contradiction also: if I am telling the truth, I am lying. The sentence forces you to reverberate back and forth between the predicate and subject; you are caught in the sentence. The sentence now has a self: it is separate from all other sentences; you have identified with it.

But of course, the trap is only imaginary; you have created the trap for yourself by following the rules of English grammar. But you don't have to. You can jump out of identifying with the sentence any time you like.

Hofstadter says the sentence is a tangled hierarchy and you are the inviolate

level. In truth you at the inviolate level have created the tangled hierarchy via the imposition of the rules of English grammar with the two poles, the subject and predicate, seeming to continuously recreate the other.

Hofstadter's idea had little impact on the AI researchers. A tangled hierarchy is impossible to create in human made hardware. I (Amit) read Hofstadter's book in 1981 and immediately saw that if applied to the brain, it solves the problem of how consciousness can inject itself as self/experiencer into the brain.

Suppose the brain has two apparatuses in it that form a tangled hierarchy. When I try to look at objects through the brain's eyes, I get trapped in its tangled hierarchy. Does that make sense? It does and it doesn't.

It does because I now identify with the brain and consider myself as a separate being, "the subject"—separate from the rest of the world of objects. My consciousness has split into two, "subject and object"—giving me an experience. I have a theory of how experiences come about.

I (Greg) have sensed this experience and welcome you to try to experience it as well. Watch for openings in your life, especially when you are relaxed and perhaps very mindful of your surroundings. Look for when your perception may stall for a fraction of a second and realize that the lag is because you have not located memory of something like it. You may be truly experiencing the object as if for the first time. That is a split-second glimpse of the tangled hierarchy of the brain, an experience of identifying the stimulus you perceived as a material object by you, the subject.

It doesn't make sense to us because our individual ego does not seem to be tangled hierarchical, does it? If you inspect, you will readily discover that what you call ego has various personality programs and you are the head honcho running the programs as you wish. This is a description of simple hierarchy.

It doesn't also because it sounds like dualism. Dualism aside, there is also the self-contradictory situation that the physicist Eugene Wigner pointed out called paradox of Wigner's friend.

Suppose there is an imaginary two-valued quantum traffic light with two possibilities: red and green (never mind that such a quantum traffic light may be impossible to build) and you are approaching it from one road. Simultaneously so is your friend but from the perpendicular road (fig. 3). And of course, being busy people of modern culture who bore easily, you both want green, so you

choose green. If you both get to choose, there is collision! But if only one of you gets to choose, whose choice is it that counts?

The fact is there is no way to settle this dispute. No criterion can be given unless you are the only conscious being and everybody else is your extension as in the following story popularized by comedian Bette Meddler.

A Hollywood woman is walking the famous Sunset Boulevard in Hollywood when she comes across a friend that she has not met in years. "Oh, let's catch up with other on a cup of coffee. They find a coffee house, are served, and she starts talking. After half hour, her awareness returns and she says, "Oh look at me, all this time talking about myself. Let's talk about you. What do you think of me?"

Philosophy has a name for this supposed phenomenon: solipsism. Yes, many people do behave like they solipsist (selfish), they are the only consciousness around, everyone else is their extension. But of course, that does not make solipsism right.

The paradox was solved when I (Amit) discovered the real origin of quantum collapse: it is not our individual consciousness, but consciousness that is the ground of all being that chooses. That consciousness chooses from its own possibilities, no dualism. Collapse is nonlocal, no signal needs to be exchanged.

When this nonlocal consciousness sees through the tangled hierarchical brain and identifies with the brain being caught in the tangled hierarchy, it produces a representation of unity consciousness, a unity self that we call quantum self. The simple hierarchy of the ego is created via conditioning via reflection in the mirror of memory. Read the book, *The Quantum Brain*<sup>15</sup>, for further details.

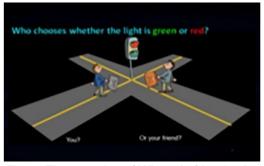


Fig. 3. The paradox of Wigner's friend: who gets to choose?

Is the subject an appearance? Of course it is, that *mayabadis* (people who declare that the world we experience is illusion—*maya*--seen through an illusory

subject) are not all wrong. The two brain systems that make up its tangled hierarchy are the brain's perception and the memory apparatuses. Notice the tangle: perception creates memory (obvious), and memory creates perception (requires some explanation).

Perception of objects also creates space where we find them. Memory collapses one-way manifest time. A memory defines the past along with a loose timeline going toward the future in manifest local space and time. The equations of quantum physics work equally well in both directions of time. Therefore, the quantum potentialities have no one-way time marker. In contrast, the memory of an experience cannot be undone, it is irreversible. In this way, without memory there is no perception (every attempt to do so will undo itself).

Now you can appreciate a depiction of tangled hierarchy in a style originally created by the artist M.C. Escher, *Drawing Hands* (fig. 4). In the original Escher picture, the left hand seems to draw the right, and vice versa. And it is an appearance; behind the scenes, Escher is drawing both from the inviolate level. For the brain, perception and memory apparatuses are each creating the other.



Fig. 4. Tangled hierarchy in the brain.

Perception creates memory, memory creates perception in the style of M. C. Escher's 

Drawing Hands.

The tangle arises because from the manifest level, consciousness mistakenly assumes it must collapse one apparatus at a time (since one lives in local manifest space and time), thus creating the trap and identifying with it, getting caught in it. Actually, from behind the scenes, the unity consciousness collapses both apparatuses at once.

Above, we discussed how the tangled hierarchy creates a trap for consciousness to identify with. What happens when consciousness disengages with the trap? It is back to the unity consciousness once again. There is no longer any experience, the unmanifest is unconscious. The unmanifest

domain of potentiality that consciousness presides over is our unconscious. As you know, the concept of the unconscious in modern psychology was discovered by Freud for whom the unconscious consists of individual suppressed and repressed memory. Then Carl Jung generalized the concept to include an additional collective unconscious—mankind's collective memory.

Quantum science is expanding the concept further to include all those previously un-collapsed potentialities as well making room for creativity. This creativity can be accessed through the manifestation process of the "Seven I's": Inspiration, Intention, Intuition, Imagination, Incubation, Insight, and Implementation. This is an adaptation of Amit Goswami by expanding the creative process first identified by Graham Wallas<sup>16</sup>.

## SELVES IN THE MIDBRAIN AND IN THE LOWER BODY

In the nineteen nineties, an important book came out by the name Descartes' Error. Emotion Reason and the Human Brain. authored by the neuroscientist Antonio Damasio<sup>17</sup>. Damasio did not talk about the error I discussed above—that the self is not an object of thinking, the self is who thinks, the experiencer; in other words, when we think of the self, the self is the one who is doing the thinking! Damasio talked about Descartes' the omission of emotion as an object of experience. Damasio developed the idea that emotion-producing stimuli are processed by the midbrain even faster than the cortex where self-consciousness is (fig. 5); since emotions do seem to precede conscious cortical reasoning, he theorized that the midbrain is unconscious in us.

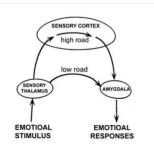


Fig. 5. Emotional stimuli reach the amygdala via the low road faster than it reaches the cortex via the high road.

However, this hypothesis contradicts quantum physics according to which experiences are results of the collapse of possibilities of consciousness in the process of which consciousness identifies with the vehicle of

experience. This is explained, in the book *The Quantum Brain*<sup>15</sup>, where Valentina Onisor and Amit Goswami theorize that the midbrain experience of emotions must also come with a conscious self-let's call it the midbrain self.

We have already mentioned the self at the heart, the heart center which is predominant in women. Japanese researchers have always emphasized the hara, a self at the navel chakra; a self that is associated with the survival and security of the body; a self that represents power, physical power. Hence, we call this the navel self the body center. This navel self is predominate in men and can become very pronounced when it is so strong that the navel chakra overrides the heart chakra and love becomes secondary to power.

We must expand our discussion about the self: to the self at the heart, the and self at the navel, and especially, the self at the midbrain. There is also the cortical self and quantum science explains them all<sup>15</sup>.

There is capacity for conscious awareness in the body at the navel and the heart but because of the survival necessity in our evolution, since the midbrain takes over the body's functions for better quick coordination. For us humans the cortex dominates even the midbrain to render it virtually unconscious which is how Damasio saw it. But in the past, it is obvious that we were conscious of this self-identity; that is how we developed self-domestication and altruism and altered the physiology of the hypothalamus.

## BACK TO THE FUTURE: TAKEOVER OR HUMAN SUPER-CONSCIOUSNESS?

There is a way out of the problem of self-serving narcissistic elitism that create conflicts and leads to the downfall of civilizations. Unfortunately, it requires transformation of the simple hierarchical nature of the self that we inherited from our animals ancestry. Fortunately, there is also no doubt, thanks to quantum physics, that the potentialities are there for transformation.

Yes, but. There is this era of the rational mind that we must complete. Our ancestors codified the hero's journey, how to transform the simple hierarchical quest for absolute power with the embodiment of the archetypes of love and goodness, but they were unable to complete the journey enmasse. The rational era soon came as well because of the advent of the new technologies like the plough.

Our ancestors worked on collective transformation quite a bit though, they gave us the semi-instinct of altruism, they gave us easy

access to motherly love and romance, but we still need to engage the archetypes of goodness and love further and embody them before we can use them for balancing our instinctual negativity. Unfortunately, the rational mind creates barriers against our efforts.

Today, the human values are under attack like never before. The information-based worldview negates human values even in the guise of humanism let alone acknowledge their archetypal/spiritual nature.

The main problem is how people experience consciousness. The practice of rationalism cuts people off from all expansions of consciousness; it tends to turn them into robots with experience. Naturally, they profess what they experience and try to formulate credible models of consciousness accordingly that can keep people away from self-investigation and transformation.

Rest assured however! The materialist view certainly has overestimated the power of artificial intelligence over us. Quantum science's unambiguous message is clear: an artificial intelligence machine can never be conscious; we can plug them in or out. It is us that we must watch, that we must be afraid of! We can use the artificial intelligence machines against one another; we are already doing this.

In our remote past, when confronted with other human species on this very planet, we resorted to violence. Altruism prevents some of us from resorting to violence against another person be he a stranger. Unfortunately, there are terrorists and criminals who do not have brain circuits of altruism. So, we engage in wars. War is virtually incessant in the human world. Such wars in the future with the use of AI is what is scary. You know why? Because AI cannot distinguish between such dichotomies as good and evil or fact and fiction. Al cannot process archetypes. A terrorist, brainwashed by a terrorist group, believing in a distorted version of their religion, is no different than a robot given AI that has been programmed to believe that their mission, however evil, is their ultimate purpose.

We are not machines; quantum physics settles that. But can we ever form peaceful societies? As mentioned earlier, human societies became different from animal societies because of a process called self-domestication. Let's explore some details of our past, prehistory.

III. PREHISTORY: FROM ANIMAL CONSCIOUSNESS TO THE GOLDEN AGE OF HUMANITY

What is the mystery about the mammals, our animal ancestors? The mystery is that they seem to be conscious, they can cognize stimuli; even though they have such a small cortex that they could not possibly think which is how we mainly cognize. Yet undoubtedly, mammals are able to cognize, there is indisputable evidence.

You have got to see this video made by the biologist Rupert Sheldrake. A woman goes to work leaving her pet dog at home. The woman sits at her desk working; the dog sits on her sofa at home. At 5 pm though, as the woman leaves her desk preparing for returning home, the dog gets up from the sofa and comes to the window to wait! Whoa, not only is the dog able to cognize but also is able to cognize at a distance, without signals. Go figure.

Materialists may say that a pet dog is conditioned; it has brain circuits of suitable responsive behaviour. But of course, this does not answer the mystery of how the dog learned this behaviour of response to some signal happening at a distance? I (Greg) have witnessed this behaviour between our pet yellow labrador dog and my wife. They have a very close connection. Even though she returns from work at various times, our dog will run to the front window with excitement and in most instances my wife pulls into the garage within a few minutes! Sheldrake's book *Dogs That Know When Their Owners Are Coming Home*<sup>18</sup>, is a fascinating read.

So, another mystery, how do animals, at least our pets, cognize? Are they conscious? Is the midbrain the seat of their consciousness?

Mammals do have something of a "limbic" cortex, but the midbrain is their forte. In other words, the mystery of mammalian consciousness is that the midbrain has the necessary conscious identity. I (Greg) have witnessed examples of this, again our dog. One such proof of this cognizing occurred when a pair of large wild Turkeys wandered into our neighbourhood, and we encountered them on a walk. They were larger, much more colourful, and she uncharacteristically stopped stiff, staring at them. When we have encountered other large birds like ducks and geese, she basically ignores them. However, after what seemed like two minutes of standoff, she again very unusually wanted to aggressively chase them, like an instinctual reaction. The pause is what stuck with me. It was like a cognizing processor was running in her brain and when it could no longer identify these birds, the flight/fight response kicked in. Conscious identity in the midbrain explains it.

### **ARE MAMMALS BIO-ROBOTS?**

Materialist scientists explain emotions as brain's response to certain stimuli such as stressors. A Google check will tell you this: "Our emotional states are combinations of physiological arousal, psychological appraisal, and subjective experiences." What causes them? "Activation of specialized neuronal population in several parts of the cerebral cortex."

Here ordinary people are no better or worse than people who are supposed to be knowledgeable. What are emotions? Emotions are thoughts with passion, energy, they say. And they are right. But when you ask, what kind of energy? This is where they will be confused. Because today almost everybody but the ones like you the reader of this article educated with quantum science interprets energy as physical energy.

The energy of an emotion is the energy that you feel—vital energy. In yoga psychology, we regard emotions as combinations of feelings and thoughts that give meaning to feelings. Quantum science agrees with yoga psychology; emotions are feeling plus thinking. In other words, from the quantum science view, emotions are the result of consciousness using the mind to give meaning to the experiences of pure feelings.

Animals, even later evolved mammals do not have much cortical development. So again, what is the mystery of animal cognition? Animals cognize through feelings with their mid-brain self.

What happens to the mid-brain self for us humans? Obviously, the self in the neocortex dominates us; above we have already emphasized the brain take-over of the chakras in the body until the self-identity awakens at the navel and the heart. Even with awakened selves in the body, most people develop habits of obstruction called *dosha*s that cover up their creative access to the awakened selves and the cortical self continues its domination.

In this way, it is logical to assume that normally the cortical self dominates the midbrain self in us to the extent that most neuroscientists think that the midbrain (memory and all) is unconscious in us. But of course, experientially, for people who are sensitive enough, in the case of the emotion of fear at least, we can feel the fear while the automatic flight/fight response sets in; we can even feel the vital energy leaving the midbrain all the way down the root chakra. This feeling of fear is experienced by the mid-brain self; the neocortex receives the signal later.

### THE IDEA OF SELF-DOMESTICATION

To construct prehistory is difficult. There are always remnants from the past; but they are only clues. We need reliable theory to interpret them. One type of evidence is material, such as fossil records. Traditional biological theory of evolution, Neo-Darwinism, gives us a reasonably accurate interpretation of the fossil record. Quantum science of evolution<sup>19</sup> does even better. This helps to construct the biological past, when survival was the main issue.

We also have instincts from our animal ancestry; they are clues of the nonmaterial aspects of our being. This, too, helps us construct the past.

Quantum biology enables us to develop a theory of instincts<sup>19</sup>. When animals engage creativity together, they become nonlocally connected, in a sort of group consciousness. The memory they make of group learning is nonlocal memory accessible to the entire group. The nonlocal memory propagates from one generation to another through group reincarnation (see later). Eventually, the nonlocal memory propagates to the future to us humans via what we now recognize as Lamarckian evolution going on simultaneously with Darwinian evolution (evodevo); this is how the instinctual memory comes to us. (For more details see<sup>19</sup>.)

There are also tribal societies in relative isolation that even today live much like tribes of the old. They are a major source of how anthropologists reconstruct the past. The problem with the current reconstruction is that the incomplete neo-Darwinian theory of evolution is used as the guide. Using the more complete theories of quantum biology and quantum evo-devo we can reconstruct the past much better, and we shall.

According to the old biology centred around Neo-Darwinism, all the different human species under the genus homo lived pretty much like their animal ancestors—bonobos and chimpanzees. Their motif for living was survival. The popularized way of putting this is the concept of the selfish gene, as presented by Richard Dawkins in *The Selfish Gene*<sup>20</sup>. The living world is posited as the playground of the selfish gene.

The net worldview of establishment biology is that we homo sapiens are just like any other animal that we have descended from. Human societies are also the playground of the selfish gene and their drive for survival. In other words, human social behaviour also originates from the escapades of the selfish gene.

Quantum biology based on the primacy of consciousness gives us a very different view. It acknowledges survival itself as an idea of consciousness, a need that life must satisfy to carry out the exploration and embodiment of other ideas and needs. Yes, survival needs dominated human evolution and social behaviour up to a point of prehistory. But then at some point, higher needs entered the fray; the species homo sapiens resulted from this evolutionary pressure, the inexplicable drive of meaning and purpose. The new species started inventing tools toward not only survival needs but also what could serve the higher needs of meaning and purpose as well. Also, what was crucial is a realization that to continue to evolve, humans must work together and achieve greater results. The whole was greater than the sum of the parts.

The possibility of the exploration of higher needs created evolutionary pressure towards more cooperation between people. The wild animals that we were, driven by the selfish gene, became a barrier to further progress

But wild animals can be domesticated. Homo sapiens have discovered the science of doing it at least 15000 years ago when humans began to use their science to domesticate animals. In order to do that it is logical to expect that homo sapiens must themselves had been domesticated. Since they had nobody else to teach domestication, it also follows that they domesticated themselves—via self-domestication.

Anthropological data suggests that the species homo sapiens appeared somewhere between 400,000 to 200,000 years ago. Harvard anthropologist Richard Wrangham in his book *The Goodness Paradox* suggests that good and evil developed at roughly the same and it was probably self-domestication that defined the new species from the get-go<sup>21</sup>. The entire process of self-domestication however took a long time, with the most significant parts of it culminating perhaps around 70,000 years ago.

All this fits nicely with the stages of quantum creative evolution. The genus homo began a couple of million years ago; gradual accumulation of the quantum possibilities of gene mutation accumulating until they could be expressed through the development of various new organs with new functions (the quantum leaps); and finally, a long manifestation stage of natural selection of Darwinian vintage, giving rise to the variety of species under the genus homo.

Homo sapiens are characterized by the evolution of the new ability of selfdomestication. The process began as the species began; it took until 70,000 years BCE to finish the first stage.

As mentioned earlier, the historian Yuval Harari<sup>9,11</sup> calls this culmination of the species to modern day homo sapiens roughly 70,000 years ago the end of biology. What he means is the end of Darwinian biology of living beings primarily driven by the survival motif. Homo sapiens, with self-domestication under their belt could finally carry out the purpose intended for the big brains that characterized the genus homo: the exploration and embodiment of meaning and purpose with gusto. Here the theory to guide us is the new quantum biology of purpose<sup>3</sup>.

### THERE IS CREATIVITY IN SELF-DOMESTICATION

The survival instinct expresses itself in homo sapiens as the elimination-digestive-circulatory organs and the immune defence system plus the brain which controls the body to respond quickly to stimuli. Upon seeing a threat, the reaction of the midbrain is to carry out the motor response needed - flight or fight.

This is how our earlier ancestors behave, chimpanzees for example. This constant violence against each other prevented our ancestors from making communities of no larger than a few members and only under the control of a physically imposing leader.

So, the first step of self-domestication must consist of curbing the flight-fight response, the ability to temporarily suspend the flight-fight, suspend the defence. How do we ourselves domesticate animals? For big violent ones that fight, we don't much succeed in changing their response. We can at best tame them. But animals' flight response we can control by offering rewards and that is what we do.

Self-domestication must involve the evo-devo of a reward system to curb our flight-fight response. This requires a quantum leap of the evo-devo; we contend that this is a result of the creative quantum leap of the physiology of an organ of the midbrain, the hypothalamus. This organ undergoes a change in its physiology resulting in a reward system (consisting of emission of neurotransmitters such as dopamine and serotonin).

This crucial step enabled homo sapiens to make larger communities than before. This in turn enhanced their creativity.

better tool making etc. With creative imagination, they could come up with situational creative ideas (enhancements of previous creations) and fundamentally new ones (unique creations.) This allowed them to make long-term plans, and this enabled them the systematic warfare they employed to eliminate the Neanderthals.

Anthropologists traditionally define the different human era of prehistory and history in terms of tool-making technology. That is Stone Age, Bronze Age, Iron Age, for example. Similarly, one-way sociological eras can be classified is as: hunter-gatherer, agricultural, and industrial/technological. New findings may change our current definitions of human history. Caltech researcher Danny Hilman Natawidjaja<sup>22</sup> concludes that recent archaeological artifacts and data are suggesting that there were significant structures built in Indonesia like those found under a large pyramid built at the tail end of the hunter gatherer era (about 27,000 years ago). This data supports the idea that a phase aptly called the garden agricultural society characterized by tools like hoe and spade must have existed in between the huntergatherer and the agricultural eras. Perhaps even rewriting history of the technological capabilities of human beings during the Ice Age.

### **ALTRUISM**

Quite superior to the above, altruism is the instinctual tendency many of us have toward helping a fellow human in distress, in need of help; it is also expressed in endowing punishment to the perpetrator of the distress. Altruism is not universal; found today in about 40% of humanity; so, we call it a semi-instinctual.

In the millennia following the cognitive revolution, the homo sapiens began to develop this altruistic aspect of cooperation as well. However, the Homo Sapiens realized that they could direct their altruism only toward those groups that aligned themselves with theirs. This also came as a huge advantage in their war against the Neanderthals, by helping the wounded and punishing the perpetrator. Once again, this required new creative development, new physiology of the hypothalamus, reward circuits in the brain.

How did this behaviour become semiinstinctual? We will not give details here (See<sup>3</sup>). The general idea is that the groups or communities engaged in the endeavour were nonlocally connected in consciousness. The memories of the altruistic behaviour that eventually became the universal software for altruism were nonlocal memory.

Reincarnation is a well-known and well documented phenomenon. What reincarnates? Quantum science of reincarnation as described in Physics of the Soul<sup>23</sup> says that what reincarnates from one incarnation to another are memories of learning in us that are nonlocal memories residing in the domain of potentiality. For us today, reincarnation is personal, only individual incarnations are nonlocally connected and have access to the nonlocal memory. For connected humans of a group in those prehistoric times this nonlocal memory was transferred from one generation to another via group reincarnation: the entire group had access. Because of intermixing, in a few generations, the individual group nonlocal memories what today we experience as humanity's collective unconscious.

The two steps; the self-domestication suspension of flight-fight response to threat and altruistic response for the needy, both consist of the exploration and embodiment of the archetype of goodness in us. Individually, we can also strengthen the altruistic instinct via further exploration and embodiment of goodness resulting in compassion and empathy.

The animality that we inherit and that is in our midbrain in the form of negative emotional brain circuits is not unmitigated for everyone. Altruism (and added compassion) gives us a certain amount of check on it. And it is available to everyone if they engage in situational creativity involving the collective unconscious.

## BACK TO HOW WE BECAME DIFFERENT FROM ANIMALS

About the quantum leap at the heart center and romantic love. Romance is not a semiinstinct like altruism, but romantic love is an experience that many young teens fall into relatively effortlessly. However, as in altruism, people who don't ever allow themselves to be vulnerable, the so-called "macho" males for example, may never experience romance. Additionally, people who lack trust do not easily fall in romantic love either. Romantic love is a phenomenon in which the immune system (in the form of the thymus gland) is momentarily suspended, and conscious intention propels the heart to take a quantum leap as a result the heart develops the higher physiology of caring for an "other".

In the same vein, mothers driven by their maternal instinct via their nonlocal connection with their babies beginning at late pregnancy give their babies a deep nonlocal sense of trust. No other animal has long childhoods like us. Mother's love can give a human baby a long childhood of love that they take with them for their entire life.

When we first broke apart from animals and became part human with self-domestication, the big challenge was to make communities larger than the animal communities and trust was an essential element of how we accomplished that.

We now can tell you the basic solution to the mystery of human capacities of forming stable partnerships, family, and society. The survival need leads to the embodiment of the archetype of power at the navel which uses the immune system at the heart chakra for defence. The mid-brain takeover of the navel and the heart chakra-via straightforward dynamics, produces in the primitive human, the negative emotional brain circuits of violence, competitiveness, and domination. When the archetype of goodness enters the dynamics via a quantum leap at the midbrain chakra in the processes of development of self-domestication and altruism, and the archetype of love is partly embodied via maternal and romantic love, the archetype of power become transpersonal. The individuals attaining this then can empower others and larger societies begin to take shape.

Mythology calls these leaders as heroes and the journey of transformation of power via love and goodness that the hero undergoes is called the hero's journey. The nonlocally connected societies developed under these hero-leaders were egalitarian to such an extent that feminine anthropologists have recognized this era as the golden age of humanity.

## THE FALL FROM EDEN AND THE YUGA THEORY

Mythology is the history of the soul, said the philosopher William Irwin Thomson. Perhaps the most famous myth is the story of Adam and Eve's fall from the idyllic garden of Eden where they lived with God in total harmony before the fall. Then came the snake and tempted Eve to take a bite of the apple of knowledge, and wham! The big fall from Eden.

Even the biologists of conventional science acknowledge the myth when they name the first homo sapiens that perhaps originated in Africa as Eve. But the rest of the story they say is fantasy.

However, the Hindus in India have the same myth in a slightly different garb—the myth of the yugas. Initially, humans lived in

perfection, the yuga (era) called Satya yuga (the Yuga of suchness or Truth). Then something like the fall happened, but gradually through two more yugas of less and less perfection—*Treta* and *Dwapara*. Only afterwards, came *Kali* yuga, when imperfection gained the upper hand.

Ken Wilber in A Sociable God: Toward a New Understanding of Religion 24, gave a spiritual theory of Eden calling it the era when humans were like animals, living in innocence, in the absence of a meaning giving mind to its experience. Today, some neuroscientists call such a state of being as robots with experience except that they think that even todays humans are just that—robots with experience. But in view of the history we have seen above, via self-domestication and the development of the instinct of altruism, we have stopped being pure animals at least 70,000 years ago. To his credit, Wilber identifies this state of humans as half humanhalf animal or centaurs.

Likewise, the Indians later developed the theory of avataras—God incarnated to prevent demons from creating chaos and restore perfection. Altogether, Hindus say, there are ten avataras. The first three—fish, tortoise, and boar are significant because it shows that these worthy ancestors of ours intuited the idea that humans evolved from animals. The fourth, half animal-half man is like the centaur of Wilber and agrees with our modern ideas. The next two, the dwarf man and the positive emotional avatara does not make much sense except that what they accomplished does make sense. The dwarf killed a demon who amassed wealth and unleashed greed like never before. The positive emotional avatara got rid of the power mongers, people who aimed for absolute power. This brought about the Satya yuga in a way quite like the picture developed above.

The next two avataras, Rama and Krishna are part historical – part mythological; their stories told in the Ramayana and the Mahabharata respectively are the stories of the Treta and Dwapara yuga respectively. The nineth one, Buddha is fully historical. The tenth one, Kalki, is a prediction. He is the avatara who will end Kali yuga, it is said.

In the twentieth century, the philosopher sage Sri Aurobindo constructed a theory of human evolution that is in much consonance with quantum science. Mind gives meaning to our experiences—this is Aurobindo's starting point. Then he theorized thus: mind first gives meaning to the physical external most visible experiences; this gives us the era of the physical mind. Then came the

era of the vital mind—mind giving meaning to feelings. This was followed by the era of the rational mind—mind gave meaning to meaning itself. And finally, Aurobindo<sup>5</sup> gives a prediction—the intuitive mind of the future, when mind will give meaning to intuitions.

Incidentally, the Jesuit priest/scientist Teilhard de Chardin<sup>6</sup> gave us a theory similar to Aurobindo: first the physical sphere, then the biosphere, then noosphere, then heaven on earth.

In quantum science, we have four kinds of experiences—physical, vital, mental, and intuitional. Consciousness gives meaning to all these experiences using the mind. In this way, the four stages of human evo-devo make scientific sense. This also fits nicely with the anthropological classification: the huntergatherer era, the era of garden agriculture or horticulture, the agricultural-industrial-technological-current high-tech era, and the coming unknown.

Coming back to Eden, Aurobindo's theory opens the door to a new understanding of the myth of Eden or Satya yuga. Recall from previous discussion that the era of garden agriculture is when humans discovered positive emotions in the form of the instincts of first altruism, then maternity and romantic love. These enabled humans of that era nonlocal connectivity and they created the collective unconscious, the reservoir of all the nonlocal memories of learning they accomplished in that era.

It is good to keep this in mind for context: Nonlocal connectivity is what defines the perfection that the myth of the Eden or Satya yuga is about.

### IV: THE MENTAL/RATIONAL ERA

Nothing is forever. Technological development eventually led to the invention of ploughs capable of large-scale agriculture. Some people of power became big landowners and hired other people to cultivate their lands. These people had a lot of spare time in their hands with which to cultivate mental thinking. Additionally, they also began to support a bunch of talented and gifted people to do directed thinking in a way that today we call philosophy.

Thus, it was that human societies slowly began to shift from the era of the vital mind to a new era where mind gives meaning to mental experiences, that is use thoughts to get at the meaning of thinking itself. We call it abstract thinking.

Thinking in this way is logical/rational, step-by-step, or in today's language algorithmic. The most important thing to note

that rational thinking can be used to solve many situational problems; we do not need to engage intuitions and archetypes.

Positive emotions like curiosity and passion can still help us of course but are not essential. And negative emotions are a distraction. In this way, gradually, in the rational era, humanity more and more gave up on emotions, and at best, left it to women for whom emotions are somewhat essential at least for motherhood. In this age, a profound male-female dichotomy was created in the society, a definite break from the egalitarianism of the previous era; in other words, this era was a "fall from Eden." In the Aramaic version of the Old Testament, the Eden myth is stated a little differently than the popular version today. The snake gives the apple of knowledge to Eve, but it was Adam who ate it, not Eve. This fits: this is indeed how the male-female dichotomy was created.

Keeping away from archetypes and higher consciousness eventually resulted in another fundamental dichotomy: between transcendence and immanence. More and more, people began to question the existence of the unconscious domain of potentiality, and the idea of materialism with it's one material space-time level of reality was born.

With the reduction of emphasis on emotions and intuitions this reduced our processing of the internal compared to that of the external. This gave rise to the inner-outer dichotomy.

## THE ORIGIN OF LANGUAGE AND OTHER FORMS OF COMMUNICATION

When did communication like expressions, language originate? What was it for initially? There are many theories, none of them convincing. Language certainly helps express the meaning of our inner intuitions, thoughts and feelings. It also helps us communicate with one another. The same could be said about the early human's ability to communicate pictorially, through drawings and paintings.

Whether it was through language or drawings, did our ancestors ability to communicate come first or did our awareness and ability to give meanings to thoughts, feelings and intuitions come first?

The linguist Noam Chomsky in his book *Syntactic Structures*<sup>25</sup>, famously theorized that the human brain organs evolved with the innate capacity to learn and use language. This theory is anathema to Darwinists but is in synch with quantum purposive evolution. In quantum chakra psychology, the throat chakra is the chakra of

expression with organs suitable for expression of experiences. Animals, birds especially use the throat chakra organs for expressing the rudimentary feelings they have—fear, anger, etc. Before self-domestication, humans did the same thing no doubt. But after selfdomestication and especially after the development of the altruistic instinct, when humans became different from their animal ancestors and started making feelings at their chakras, and their brow chakra developed thinking, the throat chakra made a quantum leap. New physiological capacities evolved and language (and the universal grammar that all languages use as Chomsky discovered) was one of these capacities.

Today we find that the function of the throat chakra organs is mostly to express rational thoughts but likely, it was not always the case. In the era of the vital mind, the throat chakra organs must have been used to express the feelings at the brow, the heart, the midbrain, and the navel. In other words, most throat chakra functions then were to give meaning to feelings. Therefore, it makes sense to say that language evolved in the garden agricultural era of human evo-devo, that is anytime between 20,000 to 7,000 years ago as part of the evo-devo purpose of that era, mind giving meaning to feelings and creating emotions (feeling plus thought). Because of brain's role of making memories of thoughts, the language areas of the brain that the anthropologist Paul Broca discovered must have begun to develop at the same time.

Animals have been found to communicate with sign language. It is likely that prior to language development, humans also communicated through sign language. Only after language use became the preferred mode of communication did it replace the use of sign language.

Thinking about thinking, that is abstract thinking, came in with the advent of the rational era. This is when profound languages such as Sanskrit, one of the earliest, originated and subsequently became like languages we use today.

The auditory capacity of the brain and its pathway to the frontal lobe regions where speech and language is processed, developed some 25 million years ago. Today, we call it the language pathway, but initially it had nothing to do with language, this capacity came much later.

In terms of other forms of communication, we have physical proof of a well-developed ability to not only communicate, but also document history as far as 30,000 years ago. Following the period of

self-domestication, development of altruism, the embracing of the early archetypes like power and the chakras described above, human beings began to explore other archetypes like beauty. Historian Christopher Clark, in his documentary The History of Europe<sup>26</sup>, points out that it was around this time that Homo Sapiens showed the growth of their creativity as depicted in the caves of Chauvet, France. This is some of the first physical evidence of the ancient Europeans. Picasso remarked that "he was shocked" of the quality in the artwork these humans had left 30,000 years ago. The precision shown illustrating the woolly rhinos, mammoths and bison is incredible. Evidence, as Clark puts it. that "A quantum leap in human development has taken place as Homo Sapiens become cultural beings." They were reflecting on their own existence, having observed and recorded their observations as evidenced in their environment. Clearly, the archetype of beauty and forms in nature had become a part of the human creative endeavour.

### **RATIONAL SOCIETY AND ELITISM**

There are two basic models of society and civilization that philosophers talk about. One is the Darwinian sociobiological view that Thomas Hobbes adapted, way back in 1651 in his book Leviathan. Humans are animals; with their mind, they made the animal instincts into negative emotional brain circuits that define them. Additionally, they have on inherent moral compass. Society is the result of suppressing these negative emotions under a sovereign (an alpha male, to be sure) who imposes necessary laws. To this, if we add the idea of self-domestication, then humans have been able to subdue their reactive violence but only at the expense of the capacity of planned violence of the proactive kind. This is why human societies live with forever wars against

The other view, about 100 years later in 1754 is attributed to the political and moral philosopher Jean-Jacques Rousseau where he posited that in the state of nature, humans are free and independent, in society, humans are oppressed and dependent on others, and under the state of "Social Contract", humans become free through obligation. Later the humanists developed Rousseau's idea further. Humans are naturally good in this philosophy; their natural tendency is to discover values to live, and society thrives when they are allowed to do so. It is society that puts constraints on the human nature. Society can be free and creative only when people are allowed to be governed by their own laws.

The hero's journey codifies that the hero follows the ruler archetype with the proviso that the hero must transform his or her base impulses of power with the archetypes of love and goodness. The laws of government made by such a transformed leader should help to foster individual freedom and creativity as well.

Indeed, we have had such benevolent leaders to lead their people to civilizations of unprecedented levels of health, prosperity, peace and happiness. Ashoka in India, Pericles in Greece, The Roman Empire Pax Romana, the Renaissance in the Franc and Austrian Empires are prime examples. And vet. these civilizations did not last.

Another theory is that there would always be inherent inequalities in a rational society, and this breeds conflict. Thinking is about processing of meaning. We can do this processing in three ways:

- 1) Do it in the existing way using inertia, called the quality (*guna*) of *tamas* in Sanskrit.
- 2) Make new creative changes as a new situation arises but using the known contexts for evaluating the changes using situational creativity, called the guna of rajas in Sanskrit.
- Make changes using the light of new archetypal contexts. This is called the propensity of fundamental creativity or sattva in Sanskrit.

It takes much time to overcome inertia. Human beings lived like animals of pure tamas for a long time as nomads and moved around from place to place until they realized that new physical situations (the glacial age that peaked around 22,000 years ago) required the processing of new meaning and situational creativity. This began an era when humans settled down during the winter at least, as described by Graeber and Wengrow, in their book *The Dawn of Everything: A new History of Humanity*<sup>27</sup>. It is at this time that the Horticultural Era began.

If we introduce a quantum science aligned topic, the phenomenon of reincarnation, we can posit that the propensities individuals develop in a lifetime being nonlocal memory transmigrate from one life to another. As these creative propensities accumulate, a few individuals develop the guna of fundamental creativity, finding new solutions to new problems in new archetypal contexts.

The earliest humans lived like animals, in small herds ruled by an alpha male. In

nomadic societies, even after self-domestication and growth in membership, only the archetype of power prevailed along with the archetype of beauty which added entertainment to life and forms of communication such sophisticated drawings and paintings as described earlier. The embodiment of goodness was minimal. This was the simplest form of elitism: people of power on top; people who entertain were in the middle; and the majority served the elite.

As families developed in the horticultural society, the exploration of the archetypes of love and goodness mollified power and made its use transpersonal. The society was egalitarian.

Later with the advent of large-scale agricultural technology at the beginning of the rational era, big landowners amassed both power and abundance. Spirituality of the old became power-hungry religions. Thus, was created one prevalent model of elitism—barons and priests ruling the serfs.

Only with the advent of sattva, three other archetypes; truth, justice, and wholeness were explored by humans and created a professional middle class.

People of power began the profession of warriors; people who explored abundance became traders and businesspeople. People of higher archetypes became healers, lawgivers, scientists, teachers. Rest of the people, the majority with low levels of reincarnational maturity took up the service jobs which all societies need.

The general model of elitism was this: people of power on top; business elite were the next; then came the philosophers, healers and teachers of sattva supported by the elites. Finally, the service people. In some societies, there were even slaves, the lowest of the lowest.

However, there had been experiments with other forms. In India, in the Vedic society, a novel form with people of higher archetypes (brahmins) on top; next came the physical power elite (Kshatriyas-kings and barons), merchants (Vaishyas) in the middle, service people (Shudras) at the bottom but the classification was dynamic according to a person's gunas (creative qualities) and karmas (propensities). However, the system became hereditary after a while and gave rise to the current caste system.

Yes, there have also been conflicts between the bottom level and the top: in England that created the magna carta, one of the first documents of human rights. In France, the French revolution, allowed the harbinger of modern democracy to form.

The development of societies in Europe and then the Western World is a fascinating story of development, from the inequalities that existed across the European landscape under various kingdoms, then dominated by empires that mostly grew through wars and takeovers. Many, after rising to extreme levels of power throughout Europe fell, due to internal and external factors. What is most interesting is that in Western Europe, Christianity started in the first century CE and then began spreading around the time of the real birth of the Roman Empire. The Roman dynasty continued to expand and along with it so did Christianity. This demonstrates that Roman rulers and society in general were aware of the spiritual element Christian religion. These societies obviously wanted to include the archetype and the teachings of Jesus. However, the leaders of the Roman and other empires that followed, leveraged this facet of Christianity across the expanding European continent from England in the west to the Middle East. Rather than embed the spiritual teachings of Jesus in society, religious leaders along with the political leaders at the time, worked together to create several dogmatic rules around religion that allowed them to further their conquests, power and influence. One can easily argue that this was an inherent weakness that existed throughout the history of medieval Europe, like the caste system in India noted above.

With the advent of democracy and the worldview of scientific materialism, the elites are now aristocrats, business plutocrats, and meritocrats. The vast majority, the rest, including the aspiring meritocrats and plutocrats, form the middle class. About 15% are homeless and poor.

The exact forms of elitism changed from external factors, mostly technological. Some of the more recent changes have been shaped by the battle between science and religions.

But make no mistake. These stereotypes are not the only forms of society in human history; there is much evidence of creativity and experimentation. One of the first experimental forms of elitism in human society, elitism in terms of one's creativity and service, came about in India as noted above. There were movements along the four level of society thus created as well. This is the Vedic society mythologised in the Ramayana and the Mahabharata. However, these great books were not purely myth; there is history mixed in both.

Authors David Graeber and David Wengrow<sup>27</sup> make this very point. There has been much social creativity in the way societies have developed.

Now the point made in this paper. Yes, there is elitism and conflict that shape human societies. Both are the products mainly of the negative emotional and pleasure circuits of the midbrain. But there is also the archetypes and social creativity. So far social creativity has failed to create stable non-elitist societies because by and large, human beings have been unable to creatively balance the damaging actions of societal leadership through transformation. Quantum science has uncovered the science behind transformation. This could be, should be a new beginning.

### **CIVILIZATION**

Etymologically, the word civilization may have originated from the same root word as "city". Cities, large centers of population, were a product of the era of the rational mind. Cities have ascended to newer and newer heights of population as agricultural society gave way to industrial, then to technological, then to the current high-tech society we live in today. So, from an etymological point of view, what went with human societies before the rational era were progressive: from magical to mythical, to more and more rational. And indeed, most modern sociologists think in this way.

And yet there is confusion. What is a society but its people? A society is civilized only if its people are civilized. What is civil behaviour? Google.com gives us the following characteristics of civilized behaviour:

- Respect and courtesy: Treat others with respect, regardless of differences in opinions, backgrounds, or beliefs
- 2. Self-control and emotional competency
- 3. Open-mindedness and tolerance
- 4. Empathy and compassion
- 5. Integrity and honesty
- 6. Consideration for others
- 7. Good citizenship

Isn't it obvious though that these characteristics, for example empathy, are more likely to be present in people who are nonlocally connected? For individualistic people as of today, this kind of behaviour is either just pretence (as in existentialism, the philosophy adapted by scientific materialists) or must be valued and cultivated (as in humanism).

As stated before, quantum science agrees with humanism and provides it with scientific backup and asserts that the source of the archetypes is the oneness of consciousness. Technological advancements and big cities are not measures of civilization. To what extent a people can develop civilized character defined by archetypal embodiment is the right measure of civilization. It is in this vein that we have been talking about a decline of civilization ever since our "fall from Eden."

Can people transform en-masse?
Under transformed benevolent leadership of heroes who have tamed their power with goodness and love, they can. These leaders empower their people and people begin to respect and practice the values that their leaders exemplify. What is a follower who does not want to be like his or her leader?

Likewise, when the leaders have value ambiguity and do not walk their talk, civilizations fall apart. Corruption enters; internal conflicts and power struggles develop. External invaders take advantage of the situation, etc.

There is another way to look at this. From our animal ancestry, we inherit survival instincts and, in our attempt to give them meaning we make them worse; we make them into negative emotional brain circuits, both universal and personal. We follow Hobbes and define civilized behaviour as the ability to control our negativity through rationality. We set up the social power struggle as one of reason versus emotion.

Today, the scientific materialists have even changed our definition of emotion: emotions are brain's response to suitable stimuli. We cannot change them or transform them; we can only suppress them and control them with rationality. This is the so-called liberal view. Liberals obviously have become implicit supporters of scientific materialism, a dogma.

Note that the word liberal etymologically comes from the Latin word liber which means 'free.' This includes freedom from dogma, all dogma. Liberals, please take note.

Traditionally, religions have upheld values as spiritual, God's imposition upon us. They become the opposition of the liberal view along with all those who are developmentally incapable of too much rationality (having less re-incarnational maturity).

What is the way out? Fortunately, there is third group of people who have even more re-incarnational maturity, so much more that they are already engaging their mind to give meaning to their intuitions. In this way,

they have become the harbingers of the exploration and embodiment of moral values. It is their leadership that is slowly but surely bringing back civilization and put us on track toward our purposive destiny.

Will there be a Kalki avatara in the future as the yuga theory of the Hindus wants us to believe? The world's population is too big now, and too diverse. A better scenario is that the few heroes of today will multiply into more and more heroes as more and more people gain adequate re-incarnational maturity, as more and more people develop positive emotional brain circuits and change their brain's overall negativity.

There is an answer to elitism that quantum science gives us—tangled hierarchy. A tangled hierarchical collapse creates self-identity. If two people develop a tangled hierarchical relationship, their individual self-identities give way to a new conjoined self-identity, the two separate "I" s become one "we".

With nonlocality, we can create a temporary we of a community, but collapse brings back separateness. If, however, additionally we practice tangled hierarchical relationship with one another in a community instead of the usual survival-oriented simple hierarchy, more often than not, tangled hierarchical collapses of experiences by correlated group members will produce nonlocally correlated connected societies.

The key is that we humans need to move toward being our true selves. This means we need to transform to the point where we can control our conditioned ego self that is driven for survival. Ultimately, we need to try achieving individuation as Carl Jung posited. A process of transformation where the personal and collective unconscious are in sync, where we understand and resolve the conflicts of our personal unconscious and strive to approach "the true self", the embodiment of the archetype of wholeness<sup>28</sup>.

## CIVILIZATION'S EVOLUTIONARY TRAJECTORY AND WHAT CAN HUMANITY DO ABOUT IT?

A single leader, even a transformed hero, for eight billion people and growing is not feasible, but tangled hierarchical organizations led by a few transformed leaders is feasible; such experiments with social creativity is already happening. This is the way out of today's morass.

Organizations can be massive, like civilizations, or subsets of civilizations, gatherings of people providing public services through governments. They can be businesses of various sizes as well, profit

focused, non-profit, or profit centred on a sustainable balance of profit and conscious social responsibility goals. They can be focused on producing goods, products or providing services, religious services, health care, military or a host of various possibilities. They all serve society in a complex web of interdependency.

For this paper, we will look at two key aspects of humanity's development:

- The civilizations that human society created, that fundamentally changed the world and brought us to the modern world where we are today. Hence, the patterns and historical artifacts are there. The good and the bad in society that humanity created and the character of the powerful leaders that founded these civilizations, provide us the paths that we can take forward and avoid those that take us back to the beginning, wiping out advancements.
- 2. It is felt in the business world of the west and believed by the economic academia in well-respected universities like Harvard, that well-run businesses that provide value to society, can contribute to humanity in tangible ways more than any other organizations in society as described in Conscious Capitalism<sup>29</sup>. And now, we can build new business organizations that can provide much value to society while meeting profit margins by utilizing the tools of quantum science<sup>30</sup>. So, we are at a critical point in humanity where we are faced with serious challenges on a global scale. The solution proposed herein stares the reader in the face, "We must augment the material worldview with the quantum worldview."

## A QUANTUM PSYCHOLOGY PREAMBLE TO EXPLAIN HOW CIVILIZATIONS DECLINE

Social creativity under the leadership of transformed leaders of moral authority is how civilizations thrive; this is the lesson of history. Likewise, the decline of civilization has to do with leaders stuck in base-level human condition, lack of altruistic instinct, and personality disorders like narcissism.

Let's talk about the ego—our everyday experience of the self, individual and personal. The quantum self, the representation of unity consciousness in the brain loses its universality via reflection in the mirror of

memory. The reflection occurs in two stages:
1) in the first stage, via a process of stimulusresponse-reinforcement, learning takes place giving us a conditioned self we call the ego; the processing here takes about half a second.

2) In the second stage, we apply our self to experience different situations, reconstruct our memories a bit here and there, and develop various personality programs for ourselves to respond selectively depending on the situation. In this way we become the head honcho, the boss of our programs, a simple hierarchy. This is the everyday self—call it ego/character/persona, that we experience.

## THEORY OF PERSONALITIES: ENNEAGRAMS

We have discussed the selves at the navel and the heart chakras earlier. The quantum leaps at these chakras lead us to the experiences of elevated feelings associated with the love archetype. For the heart, the elevated feeling is love (caring etc.) toward a friend, a business partner or a sexual partner for romance; for the navel chakra, the elevated feeling is love toward one's own self, selfesteem. Quantum leaps are needed at both chakras to fully express the love archetype: you can only love your partner to the extent you love yourself. Children too can get the opportunity of taking quantum leaps at the brow chakra as well in their grade school years (age 6-15) or when given the opportunity by their parents.

It is important to note here that the laws of development from child to adult in quantum science of consciousness are such that every child has the opportunity for activating their quantum leaping ability at the navel (from age 5), at the brow in their grade school (age 6-15), and at the heart (from puberty). Additionally, the child can learn about love from his mother, a very special love because of the nonlocal oneness of consciousness they share. This gives the child the feeling of trust, an important ingredient of love and goodness for others. The child can also learn more about other love from their altruistic instinct.

People who take these quantum leaps develop healthy personalities that are classified as body-type, head-type, and heart-type and can be explored and identified in what is called an enneagram (fig. 6). Each type is further divided into three enneagram categories. The enneagram personality categories are given self-explanatory names not requiring further elaboration.

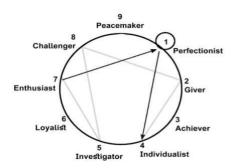


Fig. 6. The 9 personalities of the enneagram. Personalities 2-4 define the heart type, 5-7 the head type, and 8-1 the body type.

Lack of the quantum leaps at the chakras produces holes in the child's quantum leaping ability. Furthermore, habits of obstruction of creativity (doshas) create additional, hindrance. These two problems compound each other to produce personality disorders (PD) in the adult human.

Researchers have identified 10 personality disorders out of which only nine is important for mental health considerations. These nine are further classified in three groups depending on how people process their experiences primarily: in their head, or heart, or the navel.

Child development is where personalities are formed. Those quantum leaps that changes physiology at the chakras are crucial; if a child misses those somehow, he or she develops personality disorders.

If a child misses a quantum leap at one of the three chakras, that is when it develops a PD (personality disorder.) If the heart remains strong, however, a person will not have any problem with social relationships. It is personality disorders of the body types and the head types that have social consequences.

## PERSONALITY DISORDERS OF THE BODY TYPE

The personality disorders of the body type (strong navel identity), are specifically labelled antisocial. There are two antisocial PDs of note. One is called antisocial; the other narcissistic. The first is characterized by sociopathy which is demonstrated by disregard for other people. If we include the midbrain chakra in our discussion as we should, people of this PD probably also never develop their altruism instinct in their formative years.

The second PD, narcissistic is characterized by extreme me-centeredness and inflated sense of self-importance

especially if the navel chakra is awakened. By itself, such people cannot form relationships, but that may have little social consequence. However, if a narcissistic PD is combined with antisocial, such a person could be dangerous to societies if they somehow are elevated to leadership positions. All the history's notorious dictators fall in this category. Adolf Hitler is the prime example in recent history.

Why do people support such mentally disordered leaders? Firstly, because they have a charm that we call charisma, a projection of power and abundance, and things that that their followers want for themselves. Secondly, they are good in finding a scapegoat for people's social problems. Using abundance and power, Hitler pointed his finger at the Jews. Currently, in white-dominated countries, such antisocial leaders exploit the issue of immigration (of coloured people for example) for the same purpose.

Sometimes these leaders can be maniacal and their impact on the world can be very dramatic and far reaching. For example, Hitler was singularly responsible for the shift of the center of Western civilization from Europe to the USA. As a result, the decline of European civilization led to the ascent of civilization in America. The civilizations that were built by some great leaders for over 2,000 years, were leaving and now building new ones in North America, literally migrating from Europe to Canada and the United States.

## PERSONALITY DISORDERS (PD) FOR HEAD PEOPLE

The PDs associated with the brain-dominated types are:

- Paranoid characterized by a lack of trust.
- Schizoid characterized by outer-inner imbalance weighing heavily toward the inner (mystics) or the outer (so-called ivory tower intellectuals) as well as a hefty amount of lack in feelings due to emotional insecurity (weak navel self).
- Schizotypal with both paranoid—lack of trust—as well as schizoid insecurity toward emotional relationships.

Of these three, we theorize that the schizoid PD holds the key to the current decline of civilization everywhere.

QUANTUM PSYCHOLOGY: HOW SCHIZOID PERSONALITIES FALL PREY TO SOCIAL POLARIZATION

In quantum psychology, we look at the schizoid personality disorder as the flip side of the normal enneagram personality of the Investigator with holes in the soul, with no navel and no heart awakening. In addition, these people's capacity for fundamental creativity for meaning processing (sattva) is compromised by the dosha of intellectualism<sup>12</sup>. What happens? One's outer reality is dominated by intellectual constructs. And the inner reality? There the negative emotions and pleasure-seeking dominate these people. In fact, for non-altruistic people, there may even be a tendency to use negative emotion in the pursuit of pleasure.

You see, if you had the normal personality of the investigator, you would have figured out and developed a balance between the inner and outer. For example, learn to sublimate sexual energy to serve creative pursuits.

When you have the dosha of intellectualism as well as the holes in the soul, there are two ways to go:

The first group of people have preference for the inner reality; some of them are prone to use negative emotions in the pursuit of pleasure. However, these people's inner reality influences the outer. Their outer constructions become tainted by inner imaginations.

The second group is heavily weighted toward the outer reality. Due to the avoidance of the inner, they develop a paranoid distrust of mental imaginations and intuitions, especially ESP.

Do you see what is happening today? This second group tends to be materialists and science aficionados and the first group, the anti-science and conspiracy theorists giving rise to the socio-cultural polarization. We see this everywhere today.

Some of the schizoid intellectuals have leadership qualities but they are not challengers, the healthy body type personality; instead, they have additionally the personality disorder of a narcissist. So, they not only help create tents for themselves as the center but also manipulate others (both intellectuals and nonintellectual followers) to polarize the entire population in two tents. Only the people with positive emotions and intuitions (about 15%) escape these tents. So today, we increasingly live in a world where there are two tents where people live.

One tent is outer reality-based people, believers of materialist science, matter is everything! Is this irrational? It is when you see the paranoia of these people when you bring up just a hint of esoteric ideas like ESP,

intuition, reincarnation or spirituality. If you have expanded consciousness, you would readily recognize the imbalance and feel sorry for these people.

The other half of the people prefer to live in their inner lives full of negative emotions and carnal pleasure and irrational thoughts of reactivity. Out of necessity they construct a reactive tent for themselves, anything but materialist science, even if this is even more irrational

### **SOCIAL SCHIZOPHRENIA**

The worldview polarization between materialist science and religion that we mentioned earlier has produced sociopolitical polarization as well. Materialist science favours the rational mind and tries to ignore the role of emotions in our life. Love to them "is an emergent property of an ancient cocktail of neuropeptides and neurotransmitters." Religions talk about values and positive emotions a lot but try to keep their parishioners in line via only the negative emotions. Scientific materialism's denigration of values has introduced value ambiguity in most people today, and in both camps.

Television channels and social media have further isolated the two groups. Each group collects information from their favourite source and gets only the confirmation of their worldview. Just like the schizophrenia of the brain when the two selves, at the cortex and at the midbrain lose communication between them, there is now social schizophrenia.

Why do people go mad, speak in a garbled incomprehensible manner, report hallucinations, behave negatively, and move in unpredictable ways some of the time, but at other times they can pass as normal? They have been widely regarded as divided in some way, hence the name schizophrenia. *Skhizein* means split in Greek, and *phren* stands for mind. Hence schizophrenia etymologically means split mind. If you think like most scientists do today that mind is brain, then schizophrenia is a phenomenon of split brain.

We have discussed the triune brain before. Neuroscientists have identified thinking as a cortical property. The midbrain is the site for neuronal circuits of negative emotions and pleasure. The hindbrain performs only primitive functions.

So, it seems that madness, schizophrenia is a split-brain phenomenon; the split is between the forebrain and the midbrain. Indeed, neuroscience research has revealed that in schizophrenics, some of the neuronal

pathways between the midbrain and the cortex seem to be gone; there is somewhat of a split.

Most neuroscientists believe that consciousness is a cortical phenomenon. The sixteenth century philosopher/scientist Rene Descartes said, "I think, therefore I am." That dictum still dominates most Western investigations of consciousness, and most researchers maintain that the cortical property of thinking defines consciousness. Emotions are regarded as mid-brain's *unconscious* response to stimuli that include stressful stimuli, stressors.

Schizophrenics seem to be quite conscious in both phases of their operation, rational/normal and emotional/abnormal. In other words, there must be self-consciousness in both cortex and the midbrain; for schizophrenic the two selves are split, they both are mostly autonomous.

Remember this always though – the personality of both halves are the flip side of the enneagram personality of the Investigator. If the leaders of society could be persuaded to enter a soul-recovery program, the social polarization would quickly be resolved.

Alternatively, we need to try to change the followers' worldview for both groups; this is perhaps a more practical approach, and it will also take creative leadership.

# CURING THE SCHIZOID: HOW TO PRODUCE BENEVOLENT POLITICAL LEADERS OF MORAL AUTHORITY IN THE MERITOCRATIC ERA

Scientific materialists have monopolized education, especially higher education and have successfully produced a new elite class called meritocrats in our societies. These elites prefer the political system of democracy bending it to their advantage as necessary.

In contrast, the old-fashioned aristocrats and religious plutocrats, and even the nuovo rich business plutocrats support the religious worldview. They see the democracy of the meritocrats as oppositional to their traditional domination of the society. They would like to revive some form of dictatorship like the kingdoms of the olden days. Their vision of democracy is democracy under a dictatorial president who is above the law. Only when protected thus, he can institute the necessary changes in a society rendered moribund under the meritocratic rule: this is how they think. The problem with this thinking is that such a dictator since he is me-centered will make changes that will benefit primarily only him and the elites of his class.

As discussed earlier, the quantum science of personality supports the ancient nine-fold classification in terms of enneagrams. In this theory, socially oriented political leaders come in three types: the challenger, the peacemaker, and the perfectionist. Out of this the challenger personality suits well the role of the reformer that will be able to bring social changes that we need today. It is well known that the worldview polarization has created a crisis of civilization. A challenger is certainly needed. How to produce a challenger with a social conscience?

The recipe is already partly there in our collective unconscious. It is called the hero's journey and consists of the exploration and embodiment of the archetype of power along with the archetype of love and goodness. But the steps to the journey have been obscure and the successful completion has been rare. In other words, how many Gandhis and Nelson Mandelas do you find in history?

We feel confident that quantum science of consciousness via the concept of vital creativity and quantum leaps of the midbrain chakra is finally showing us the way to produce such socially serving transformed challengers that Plato envisioned as benevolent dictators. And also, quantum science is showing us how these leaders will create socially conscious organizations of tangled hierarchical connectivity once again and expand our collective unconscious to produce positive emotional instincts for the entire species.

## WHAT IS THE CAUSE OF THE CURRENT DECLINE OF CIVILIZATION?

If you think about it, democracy is a good deterrent against dictatorship provided the political parties play the basic rule of democracy: the individuals, especially the leaders must somehow identify with the basic principles that define the whole nation/state. In quantum terms, for the concept of nation/state to make sense optimally, for every citizen, there should be an implicit agreement to allow correlation (entanglement) with any other citizen, if push comes to shove<sup>31</sup>. However, this is not feasible for people with no altruistic circuits in their brains. Most of the world's nations still run on democracy; but it is tenuous, altruism is on the decline and leaders are not paying attention. That is why we see them today and hear so much about more dictators rising again.

This has happened historically over and over. When political leaders stop aligning

themselves with core principles that unite the people to think of themselves as one people in spite of their individuality, democracy is at a loss. A charismatic selfish leader can easily manipulate a sizable fraction of the people according to his selfish desires and challenge democracy.

In European history, this was true of Constantine, then Charlemagne and then Napolean in their respective empires. As historian Peiter Judson writes in his book, The Hapsburg Empire: A New History<sup>33</sup>, in the Austrian Hungarian Empire, the Austrian leaders allowed border fringe groups to adopt their own cultures within the empire's borders. The people within these groups enjoyed the benefits of the empire, but also heard what the leaders of their fringe groups were saying in terms of unequal treatment. At the same time. the fringe leaders offered to provide more selfdetermination which won the people over, however, the fringe leaders became the dictators that eventually challenged the empire. This was one of a few key reasons why World War I started, and the historic Hapsburg rule and the entire powerful Austrian Hungarian Empire collapsed, and with it, the chance for the development of a multicultural and modernized civilization ended there. What was most destructive was that WWI justified the internal military taking control of the Empire and it became a dictatorial regime. At the same time, the fringe leaders of the surrounding nation states controlled the messaging, stating that the empire allowed "feudal anarchy" and should be remembered as the "prison of the people" rather than one of Europe's most multinational empires and giant free trade zone. With this, the treaty of St. Germain and Trianon dictated that the empire be dissolved creating new countries and states including the Balkans.

From hindsight, it is very apparent that there was the genesis of a movement toward a quantum worldview. He did not know it; however, Emperor Charles I of Austria was trying to facilitate the expansion of consciousness, that citizens of different cultural backgrounds must correlate with other citizens, thereby creating a new collective unconscious of oneness within his civilization. In two and a half years, the misguided actions by the ego driven new dictators at the treaty. erased all the good will the Austrian Hungarian Empire had developed with its citizens and trading partners, never to come back in such glory. A materialist worldview left Europe in a more unstable position after WWI, whereas a quantum worldview could have moved it in the direction of the purposive flow of

consciousness. Quite likely, there would have been no room for Hitler and we could have avoided the rise of Nazi Germany and the resulting horrors of the deadly battles and death camps.

### SCHIZOID PD REVISITED. A DEEPER QUANTUM PSYCHOLOGY PERSPECTIVE OF WHERE DICTATORS COME FROM

There is an additional explanation for the rise of these dictators. There are those head type personalities discussed before. There are PDs for head type (strong brow chakra) people due to the non-awakening of the other-chakras, especially the heart chakra. The PD of concern is the schizoid personality. Some of these people are intellectuals with college degrees: they suppress emotions: they sit in the ivory tower of intellect and look down upon people incapable of high level of rational thinking. The schism is between people who are college educated capable of rational thinking and able to suppress emotions and people who are not college educated, cannot do sustained rational thinking, prefer information processing, and succumb to their mostly negative emotions.

If you look for a synonym of the word schizoid in a thesaurus, you will find most of the synonyms evades the issue and gives other similar words that we use like schizophrenic or nut or crazy or mad. So schizoid PD denotes people with a tendency to become schizophrenic. This definition does not help. It causes confusion because there are many more people with schizoid personalities than there are schizophrenics.

Only when we look carefully, can we find the real meaning of schizo: cracked, unglued, unhinged, unzipped, unbalanced. Okay, now we can finally intuit this: our normal personality holds two contrasting ways (duality) of sorting things out and we must achieve a sense of balance in order to keep them together. When these two aspects become separated or unglued, they lose the sense of balance and that is experienced and eventually perceived by others as a disorder.

In this way, schizoid people on the emotional side are generally unbalanced in their inner-outer dichotomy; they seem to prefer their inner reality more than the outer. In other words, they are aloof, they are detached, they are more interested in their inner negative fantasies than outer consensus reality. They appear at odds with people of consensus reality. Some portions of this personality disorder will have altruism; they will be harmless. But most will not; their imagination would be more on the irrational negative side.

It is important to note, however, that the people with this disorder are incapable of seeing their own irrationality. When this is accompanied with the normal mistrust people have of others who are "different" (in color, creed, sex, sexual preference, worldview, you name it), it is easy to see how this personality can lead to social polarization.

### MODERNISM, POST-MODERNISM, AND THE CURRENT THREAT TO DEMOCRACY: ARE WE SEEING THE END OF KALI YUGA—MAXIMUM SEPARATENESS?

Modern science came about in the sixteenth and seventeenth centuries and ever since it has been influencing human societies so much so that we put a distinction and call these science-dominated societies as modern. We will call the underlying worldview as modernism. The ideas of modernism were developed mainly in Europe where also lay the center of power. The main underpinning of modernism was the Cartesian truce between science and religion: religions conceded that science should rule over the domain of material movements so that industry can develop in an unhindered way: science conceded the domain of the mind to religion. In this way, modernism retained a healthy mixture of both idealism and reason-based materialism

The most important contribution of modernism to social development were the three new institutions—capitalism, representative democracy, and liberal dogmafree education. Capitalism distributed wealth among the social strata like never before and so much so that there was now a sizable and growing middle class between the rich and the poor. Democracy was based on spiritual ideals and legitimized the notion that people's pursuit of happiness is an inalienable right. Here you must remember that in idealism, happiness fundamentally derives from an expansion of consciousness to include others. And liberal education's job is to liberate you from boundaries so humanity can use the freedom to fully explore and embody the human potentialities.

Together, these institutions infused new life in the moribund societies that preceded it. Scientific creativity flourished and industries grew rapidly.

The dark side of the industrial superiority of Europe was imperialism: most of the rest of the world, some parts with long history of civilization, were dominated by Europeans. The cultures of the dominated East were denigrated, and an artificial East-

West divide was created that undermined the two-domain spiritual worldview of monistic idealism of primacy of consciousness that prevailed in the East.

Also, a notable development in this period of societal history was the discovery of quantum physics in 1925-26. Even the early struggles of the pioneers of quantum physics were already threatening to replace the matterdominated Newtonian worldview to a new quantum worldview that had room for consciousness. However, World War II intervened and closed off any progress in this direction. As mentioned above, decisions made by the leaders at the end of WWI erased some potential movement toward consciousness of the Austro-Hungarian Empire. This opened the door to maniacal leaders like Hitler, that resulted in Europe falling back to ego driven leaders, some with personality disorders.

After the World War II, power shifted from Europe to America. Soon, modernism gave way to post-modernism; idealism gave way to scepticism about spiritual/religious values. Eventually, new advances of science and technology emboldened scientists to revolt against religious morality entirely and they declared science's supremacy over religion via the adoption of the old metaphysics of materialism whose origin can be traced back to ancient India and Greece. This new way of doing science was called scientific materialism: all movements and phenomena in space and time are material; matter is the only reality; there is no room for God, the spirit, as well as archetypes the cultivation of which leads us in our ego to the spirit and God.

In America, religions (Christianity) reacted against this and in cahoots with the "conservative" republican political party foolishly declared themselves as the moral majority. Hence, a new era of worldview polarization began as the liberal wing of democrats more and more adapted scientific materialism as its worldview.

Scientific materialism, lacking a proper science of feelings, denigrates emotions and elevates developing increasing capacity for rational thinking as the objective of education, especially higher education. This created a new elitism of meritocracy and led to another polarization of the society with a lower education/higher (college) education income disparity.

Ironically, as the "progressive" party in America, the democrats, more and more identified with science in the form of scientific materialism, discovered that one cannot progress civilization without the spiritual values. They then implicitly adapted a new philosophy of humanism and declared that the archetypal values are human created. They also declared that though human created, one should try to follow the values; if they can't, they must at least pretend; that would be the politically correct thing to do. The biggest problem with this approach is that the concept of politically correct truth, most of all, destroys the news media, the fourth estate of any democracy. The republicans and the religious leaders saw the opportunity this value ambiguity created; they simultaneously pretended to be upholders of religious values and pursued money and power often in a very non-religious way. In this way, they began to form a new coalition of value-conservatives (with a considerable amount of hypocrisy), religious oligarchy, and business plutocracy.

Then in 2015 and now again in 2024, an altogether new force in American politics has arrived —a billionaire businessman named Donald Trump. He called the bluff of the democrats' pretend values and created an environment where it is OK to be mecenteredness, express negative emotions, and indulge in pleasure addiction and information preference. This reflects the characteristics that defines the base-level human condition of a large percentage of Americans and is dominated the lower-educated. This let many Americans (especially those without altruism) to revive latent racism, sexism, and homophobia, etc. Trump very successfully used the fear of uncontrolled immigration along with super-articulate use of misinformation to agitate these people into his followers and expanded the republican coalition even further by including the bulk of the lower educated labour that previously identified more with the democrats.

Is Trump a threat to democracy? He is, but he may fail for three reasons: 1) His age is a major obstacle to his dictatorial ambitions. 2) American constitution is full of guardrails, and 3) American democracy is based on spiritual values which are coming back thanks to a growing relaxation of religious dogma, theoretical progress in quantum physics, and the development of a quantum science of consciousness. An inclusive science of experience that integrates reason, emotions, intuitions and archetypes, and spirituality and resolves all the sources of worldview polarization. Not coincidentally, experimental progress in neuroscience and the science of measurement of feelings are enabling researchers to verify the predictions of the new paradigm.

History has repeated itself. The Roman Empire had of course, great leaders like Ceasar Augustus, Marcus Aurelius and others that built physical infrastructure, government structures and an environment where ideal societies could evolve as well evidenced during the Pax Romana period.

During the Pax Romana, or "Roman Peace," an incredible 200-year period of relative stability and prosperity across the Roman Empire, from 27 BCE to 180 CE was set in motion by Caesar Augustus. He achieved this by centralizing power, reforming administration, and focusing on economic growth. Roman legions continued to provide security, while infrastructure projects were undertaken like major roads, buildings, amphitheatres and aqueducts, and to facilitate trade. Local governance was allowed. promoting stability in diverse regions. This era enabled cultural exchange, economic flourishing, and equity in law, reinforcing Rome's dominance and cohesion. Most importantly, we presume that Augustus must have had a spiritual awakening; this is why he paid so much attention to the quality of life for himself and his people for which his people named him Augustus (his previous name was Octavian), which at his time was a religious word meaning venerable.

However, like what is happening in the world politically today, there were many less evolved emperors that ruthlessly led the Roman Empire with aggressive military might. They used conquests and warring to fulfil "the greater good" of the Roman civilians by protecting them and still upholding religious values. This was a ploy however, to gain their trust, thereby fulfilling the emperors' own selfish desires disguised as a virtuous leader.

And then there is the question, how is the transition going to take place? What are the best courses of our actions? Today, we need to be patient, because paradigm shifts take time.

In the short term, the current crisis can easily be recognized as a schizophrenia of worldview between reason and emotions. It has been predicted by sociologist Jean Gebser that this period will eventually lead to an integration of emotion and reason.

Accordingly, we have already begun a movement called quantum activism—integrate reason and emotions yourself and transform as you try to transform society.

The long-term future of humanity, however, can now be predicted as well on solid scientific ground. And the future is this: We are moving toward an era of the intuitive mind dedicated toward making the world one

human community. This was predicted by the mystic/philosopher Sri Aurobindo<sup>5</sup> and mystic/scientist Teilhard de Chardin<sup>6</sup>. We call it the (second) coming of a quantum society characterized by wholeness, free of conflict like never before.

Recall that democracy came about along with two co-arising important institutions that led to modern societies: dogma-free education and capitalism. The path to the intuitive mind consists of changes to be brought about in these institutions now thoroughly corrupted by scientific materialism. The question of how to change the current secular scientific materialism dominated education to an archetypal value-oriented education that resolves the polarization problem between the lower and higher educated has already been solved<sup>19</sup>.

In this paper, we will end with a discussion of how quantumizing businesses using the ideas explored here and quantum economics<sup>30</sup> is a viable option for achieving the return of the archetypes and report on the modest effort we have already initiated.

## A QUANTUM SCIENCE LOOK AT NEW ORGANIZATIONS WITH CONSCIOUS QUANTUM LEADERS

In researching for my Ph. D. thesis project, I (Greg) am aiming to identify the dynamics and forces that exist in those companies I have recognized as "healthy organizations." To date, I have discovered two overarching characteristics of healthy organizations that seem to apply to these types of conscious companies. They are:

Healthy organizations have leaders that display a very wide bandwidth of intelligence, which goes far beyond simple rational intelligence as measured by standard tests like the Intelligence Quotient (IQ). These leaders of healthy organizations also have the subtle often unconscious appreciation of the quantum worldview, which manifests itself in them as other forms of intelligence, with characteristics like common sense, emotional intelligence, altruism, fairness, authenticity, creativity, conviction, etc. This allows these leaders to discern situations quickly and make great decisions. In other words, they have become what can be described as Quantum Leaders. These leaders must also be committed to passing on their Quantum Leadership philosophy and

knowledge to the future leaders of the organization to sustain the organization's culture and secure its survival. In terms of business, Quantum Leaders not only wish to see that the employees throughout the company embrace the fundamentals that formed the foundation of the business, but also provide skills and tools that help them in their home life.

2. In addition to preparing the future leaders of an organization to be Quantum Leaders, the entire structure of the organization and in the case of a business, all its employees, must be given the opportunity to not only authentically emulate the actions of the leaders, but also enable them give their own meaning to the actions of their leader, both in good times and especially in tough times when the organization is under financial or some form of other stressors that businesses face. In quantum science terms, this could be defined as the actions taken by an organization's leader to maintain its existence in the flow of consciousness, even after his death, so that in the future, the culture and DNA of the business is passed on to its successors. In this way, an excellent Quantum Leader becomes an archetype for all stakeholders to aspire to. Other leaders in the organization can build their own meaning and create new ways to express the values that the founder left behind, so that they can advance their growth to individuation. Examples of this include the historical leaders of civilizations like Pericles, Chandragupta Maurya, and Marcus Aurelius. They are not revered as great founders because of military accomplishments (which were usually brutal wars); it is because they put in place structures and culture that could be used to further advance generations of future civilizations.

"The Great Founder Theory", an idea theorized by political scientist Samo Burja, has come to a similar conclusion to my realization, that truly great leaders (founders) create great civilizations, which are, just massive organizations. Like many large companies with thousands of employees, civilizations are groups of people with different cultural and ethnic backgrounds, skills, biases, and personal agendas. It takes a great quantum leader with their large bandwidth of intelligence to manage such a diverse group and deal with the external pressures outside of the organization to build and sustain a civilization.

The same focus on great leadership can apply to founding great businesses. In Burja's upcoming book Great Founders Theory<sup>35</sup>, he defines civilizations' founders as leaders that built, grew, and put structures in place that would allow a civilization to sustain itself. In the world of business, I would suggest that the business founder would need to do the same things in his organization to reach the stature of a business with true consciousness.

An example of a great business founder that founded a consciousness organization is Jamsetii Tata and the TATA Group. Jamsetji and his successor Dorabji Tata over the first 50 years of its existence changed the landscape of business and prosperity in India while maintaining its spiritual roots. Today, after 150 years of proven success, we know Dorabji, and the other subsequent leaders followed the philosophy of the original founder. For example, they established huge charitable trusts, still maintain them, and the subsequent leaders have adhered to the desires of the Tata Group, that as described in Paul Casey's book The Story of TATA<sup>34</sup>, it "would create companies that would make the world better than when they found it."

What I have determined is that many of the companies that I have identified in my thesis research as healthy organizations have founders and leaders with a spiritual side. Some of them were raised in a spiritual environment, others embraced a spiritual outlook later in life. Popular authors with a spiritual bent and interest in consciousness like Dr. David Hawkins, Eckhart Tolle or Dr. Wayne Dyer have elucidated ideas that are aligned with quantum science and subsequently, have positively inspired business leaders. In addition, I have discovered there are leaders that do not have a spiritual upbringing or consider themselves spiritual in a traditional sense, but are unconsciously in the pursuit of goodness, simply because it "feels right." This supports what society now sees as actions for the "greater good," such as equality, ESP awareness, etc. This falls in line with our earlier discussion in this paper of selfdomestication, where it is now theorized that humans, at a point in the development of their mid-brains, gained the ability to access the awareness of the archetype of goodness, and

became altruistic. So, we can see that Quantum Leaders may develop key characteristics like goodness through spirituality or through exposure to religions in their early lives, inspired by spiritual leaders that ignite an awareness later in life or simply instinctive signals from the midbrain. This may be what certain members of humanity has subconsciously used for centuries to bring themselves into alignment with the collective unconscious, and act as leaders in society throughout the world's development of civilizations.

## CHARACTERISTICS OF CONSCIOUS AND HEALTHY ORGANIZATIONS:

Two fellow PhD candidates and I have identified a remarkably interesting company in Jaipur India, the Jaipur Rug Company, which we have identified as being very much a business organization with consciousness. This company has singlehandedly taken 40,000 women off the streets and employed them, by providing equipment and materials to produce beautiful custom-made rugs.

In our qualitative study, it is overwhelmingly obvious that Jaipur Rugs is a conscious organization and that a significant portion of their profits are channeled to altruistic initiatives for the good of their employees and society as a whole through their foundation. However, quantitative study is warranted to confirm that it is present throughout the company, and that the company is what one would call a conscious company and possibly act as a model of what one should look like.

Early analysis of the data indicates that throughout the Jaipur Rugs organization, there is a strong correlation between the employee's happiness and meaning of their work along with other social initiatives the company has taken, the authentic reason of existence of Jaipur Rugs.

A second study I have embarked on is an investigation into the company where I have worked for 20 years, WG Inc. based in Canada. Here, along with the opportunity of continual observation as a director in the company, I am relying on an ongoing annual assessment of this company by a very respected global management company to determine why it year after year, scores the highest platinum level certification as one of Canada's "Great Place to Work." This certification is based on direct feedback from employees, provided as part of an extensive and anonymous survey about their workplace experience. Nancy Fonseca, Senior Vice President of Great Place to Work Canada.

says that a great workplace is about the level of trust that employees experience in their leaders, the level of pride they have in their jobs, and the extent to which they enjoy their colleagues. "Our data shows that great workplaces benefit from stronger financial performance, reduced turnover, and better customer satisfaction than their peers. What is more, work environments with trust at the foundation are ripe for innovation, agility, resilience, and efficiency," Fonseca says. In other words, she is talking about a healthy organization that practices conscious capitalism.

Hence, it is clear that businesses that put conscious awareness high on their list of priorities bring consciousness to their operations. This in return provides a solid foundation that can prosper in good economic times and difficult recessionary times. This is an amazing dynamic that many of us generally sense about our society and stares in the face of all humanity. Adam Smith envisioned this when he wrote his book the Wealth of Nations<sup>36</sup>, warning that we must not forget the social aspect of capitalism, otherwise we would all become "beasts." Healthy organizations are certainly possible in other organizational forms, such as governmental, educational, and political ones since they are less constrained on the need to meet greed driven financial profit goals.

In addition to the key characteristics I have identified of healthy organization, the other outcome of my research will be making a connection of the above potential factors to key operational fundamentals that the organizational leaders have identified or implemented. Some of these fundamentals will be part of their vision, mission, and core values, but it is becoming apparent that understanding *purpose* and authentically setting out to fulfill that purpose is really what sets the table for a healthy organization.

From the materialist worldview where most businesses operate today, a common approach is to determine what a business stands for and where they want to go in the future. This can be answered using a few questions that usually introduce a need for some altruism in the company's mission, vision, and values, which is good. Companies increasingly realize that they must take care of employees, the environment and society. A pessimist might say they are simply changing in order to fall in line with their competitors. A conscious and more optimistic person may say that society as a whole is realizing we must change to meet the challenges of our planet as

a whole. Perhaps this is thanks to a shift in our use of the collective unconscious.

From the *quantum worldview*, however, we can take a different approach which requires some proactive activity between people personally. My research indicates that healthy organizations see their business path forward driven by two different sets of dynamic forces. One, by the character of the Quantum Leader as described earlier and two, by the active functioning of what I call actionable quantum fundamentals that the organization has identified as necessary to improve operationally and at the same time expand consciousness.

### CHALLENGES THAT BUSINESS FACE TODAY:

As part of my research and validation of theory, I am looking at the challenges faced by potential healthy organizations in remaining true to their purpose (of staying in the flow of consciousness), where external forces outside of the organization are at play. Some examples of these challenges are:

- a. Economic boom and bust cycles.
- b. Aggressive competition
- c. Government interference
- d. Further mechanization of robotics and Al
- Obsolescence due to new inventions or other innovations
- Other unpredictable challenges required quick action.

## EXAMPLES OF QUANTUM TOOLS IN ACTION:

I have experienced and discovered situations where activities, practices, ingenious ideas, and other forms of situational and fundamental creativity were used in organizations that are in reality, signals of quantum processes at work. Some of these actions appeared spontaneously, some were programmed. Some people felt they were aware of the subtle nature of these experiences such as unification, amplification of a new idea or unexplained unconscious direction given during development of a process. All of these are signals of quantum tools in action from my perspective.

For this paper, I have identified three examples of quantum tools that were unknowingly used successfully to solve issues or move toward consciousness:

Downward Causation (Purposive flow of consciousness)

- Tangled Hierarchy (Deep connection between partners/team members)
- Discontinuity (Quantum leaps in creativity or knowing)

Here are just a few examples of the application of these tools:

### **DOWNWARD CAUSATION**

The Jaipur Rugs story mentioned above is full of examples where NK Chaudry, the founder, decided that his purpose was to enter the rug making business and do things in a different way that would allow his company to make a profit, and at the same time take abused and destitute women off the streets and share his company's profits with them. To follow one's purpose, to flow with the river of consciousness, one can meditate or pray for success in business and also wish success for employees of the business, and all others that they touch with their products or services.

Another example of downward causation in the business world is where the organization's leaders engaged the noble aspects of the goodness and love archetypes to fulfill their ethical and contractual promises rather than leverage opportunities to enforce power and greed with customers. As an example, WG inc. was contracted for a project requiring a specialized crane support system only available in another country. The company it contracted with to provide this system reneged on their promise. WG Inc. could have pleaded with force majeure, but instead built the support system at great cost to them, to fulfill its obligations, replacing greed with goodness for the client.

### **TANGLED HIERARCHY**

A classic example of a tangled hierarchy on a general personal level is the connection between two or more people, where they can sense the feeling of care and goodness among one another, such that they spontaneously help each other without much effort. Person A helps person B and in the same or in a separate way, B then helps A. As employee partners or friends, they not only exist, but they also progressively advance as individuals through another domain of quantum reality, non-locality discussed earlier. This of course happens with the connection between a loving couple, where they can sense the feeling of love between each other such that they automatically help each other.

In the 1980's one of the largest construction companies in Canada was in

serious trouble during a bad recession and at the same time were dealing with some badly performing contracts. The senior management of the company, (four people) grouped together in what can only be called intense tangled hierarchy to save the company, even though the CEO and President did not know it. Everyone had figured the company was sure to go into receivership, except for the group of four, on their own but collectively, they decided they would come to the rescue of the firm. They worked tirelessly for months and were able to secure some large contracts and run them profitably enough to help the company weather the storm of the recession and losses from the tough contracts.

A more dramatic example of a tangled hierarchy kicking into action automatically is the courageous steps employees of the TATA owned Taj Mumbai Hotel, who as a collective team took it upon themselves, to courageously risk their own lives to help save the lives of patrons of the hotel during the infamous 2008 terrorist attack. One third of the thirty-one people who died in the attack were hotel employees, who helped over 1200 guests escape. The guests of course were so incredibly grateful to all the employees who selflessly helped them. One can tell that a non-local connection between the employees, their managers and the guests existed, a large, tangled hierarchy spontaneously coming in place.

### **DISCONTINUITY:**

In The Everything Answer Book, Goswami<sup>37</sup> links the quantum leap, a phrase coined by physicist Neils Bohr for describing an electron's jump from one atomic orbit to another without travelling through the space between with the discontinuous transition in meaning during the human creative process. In a creative experience or having that "Ah-ha" moment, we jump from the known to the unknown without taking the intermediate steps to verify in between. Sometimes these innovative ideas resolve issues in another area, like the new context of time that Einstein's Relativity theory did, resolving the conflict that existed between Newton and Maxwell's theories.

In a similar way at WG Inc., a team working creativity on automation, discovered that by introducing a robotic machine to replace the tedious work in one area of material processing, they could speed up production, but by also introducing other machines, a new entire robotic line was created which had not been done before. But that was not all. What was also discovered by

this creative team was that by aligning the process of engineering and shop drawings with the robotic line, linking a more human driven process at the front end to the machine driven back end, we could remove an obstacle to efficient processing of information on large, complex projects. A new solution to the market was created, providing better delivery, quality, and pricing. So, a creative solution to increase productivity in the plant unveiled another holistic solution that could be provided at the front end with the client.

## TANGLED HIERARCHY AND THE QUANTUM LEAP IN COMBINATION:

Not long after and as a result of Covid, in 2022, WG Inc. found itself in a very problematic situation with the contracts held at the company. We had too many small contracts, many with low or negative margins and we could not see a good plan forward. The president decided to right the ship through a two day meeting of twenty managers to find a solution. The process that was planned seemed basically like a big brainstorming session, but it was in fact truly a quantum brainstorming event.

In addition to an invitation to participate in finding a solution to the problem, there was some prereading and a survey questionnaire to collect thoughts on this predicament. The results were summarized and then sent out in advance of the meeting. At the meeting, in small groups and as one group, everyone was given an opportunity to comment on the validity of data, followed by offering up what they thought were good solutions. At the end of the day this information was assembled and summarized. A nice dinner followed with the entire group. and we were instructed to sleep on it and prepare to present our individual thoughts the next day. What was no surprise to me was the fact that the depth of thought everyone had given to the problem and the quality of the creative solutions was quite remarkable. So, from the lens of the quantum worldview, this is an example of a proactive step to develop a tangled hierarchy between the group, a chance for people to think about the issues collectively, to correlate with one another personally and sleep on what was studied (called unconscious processing in quantum worldview.) In the end it was also an example of the creative process at work leaving us with several very creative solutions that were generated by quantum leaps of creativity. The implementation of these creative solutions led to a return to profitability and a strong financial position. An expedient solution to a problem was needed, but it was done as a process with dedicated time to focus on hearing everyone's initial ideas and then time to relax the minds of the stakeholders and allow unconscious processing to take place.

#### CONCLUSION

To summarize, the world of business and all organizations can have a major positive impact on our civilization by improving the lives of people around the world and solving the many challenges we face on our planet. By inspiring profit driven businesses and ego driven political leaders to move away from greed and the abuse of power of the material worldview, to embracing a new quantum worldview, the future can look brighter than it did during any

point of our evolution. Educating potential leaders to develop the skills to be Quantum Leaders and providing humanity with a set of quantum tools to live by to support these leaders, civilization will naturally align itself with the positive attributes of the noble archetypes, like abundance, power, goodness, love, justice and truth through downward causation. This purposive flow of consciousness, proven by the existence of the arrow of time in our evolutionary historical records, is there to guide us. As intuited by ancient spiritual masters thousands of years ago, recommended by Adam Smith at the birth of democracy and foreseen by philosophers Sri Aurobindo and Pierre Teilhard de Chardin less than 100 years ago, we must be committed to doing this.

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