

**The Psychology and Origin of Religion:
an overview**

Enter With an Open Mind.

University of Colorado at Denver
Religion and Cultural Diversity

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In my house growing up, we were non-practicing Christians. My family celebrated Christmas and Easter but my house was devoid of the stories of the bible and the common need to congregate. I was apparently baptized Catholic as an infant but I don't actually recall a single instance that my family went to church – for any reason. I was unaware that Christmas was meant to represent the birth of Jesus Christ until one of my school friends told me. All I knew of Christmas was that it was a time to gather with your family, share gifts and bake things because you love one another. And, of course, for the magical Santa Clause to come down the chimney and leave presents for good children, for the mere price of some cookies and a glass of milk.

The memories I have of Easter are some of my favorites as well. Growing up, my family did a lot of nature walks and hiking. I have a very young and fond memory of one Easter when my family went to The Garden of the Gods in Manitou Springs, Colorado, very early in the morning. Little did I know my parents had brought the eggs I painted the day before with them; they sneakingly hid them around a picnic area while I sleepily rested in the car, waiting for our breakfast picnic to be set up. I remember how happy I was that the Easter Bunny knew we were having a breakfast picnic and had accommodated us. My belief in the Easter Bunny and Santa Clause dwindled when I was around 6 or 7. I had lost faith partly because I was able to convince some kids living down the street that my dad was, in fact, Santa Clause.

For more than a decade now, religion has fascinated me. What I now know leads me to believe the upbringing I had is somewhat rare. My parents gave me no direction, nor restriction, on how to believe, and through my friends' families I was exposed to many different views. As I grew up I was able to form my own ideas on religious belief. In the following paper I will explore the *Why?* and *How?* of religion. Why do people believe in something that is lacking evidence? Why has religion been at the base of all modern human communities? Why does religion appear in archeological history at the same time as intelligible consciousness, language and a significant change in brain size? How does prayer

and belief in God heal people? How does science explain religion's obvious influence on humans? How do religious belief and scientific thought seemingly come up with similar sounding explanations?

Allow me to quickly define a few of the words usages you will see in the following paper. I define religion as the broad, universal sense - a founding belief in something that is both improvable and undeniable, a self-truth which allows reality to make sense to the individual. A theory is a once hypothesis that has been repeatedly tested and has not been proven wrong. I use belief in the manner that it's someone's personal interpretation of reality, an understanding that is in many ways not testable or disprovable. Beliefs are typically very personal things; they are interesting in that they seem to give people the ability to do things that would not otherwise be possible. Beliefs are not found in science, there is something that is somewhat similar though, and it is called a hypothesis. In science a hypothesis is a thought about, or some circumstantial evidence for, the functioning of nature. Circumstantial evidence and some thoughts are not testable and therefore may not be called theories. There is also something called a working hypothesis, it is something that is claimed but is not testable and no evidence has been found to be contrary.

Over the years I've spent a good amount of time pondering existence and the hypotheses and beliefs provided by different types of religions. Through my studies in the physics department at the University of Colorado at Denver and the research I have done for this paper, I believe I am the closest I've ever been to an understanding of this natural phenomenon that I am comfortable with. My intention in writing this paper is to analyze *why* people believe and not *what* they believe, I have no authority to declare another's belief to be right or wrong.

There are several schools of thought on the psychological and/or neurological reasons why people, from all over the globe, have religious belief. One common view, found in psychology, is depravation theory. This theory suggests that humans feel there is something to be explained and use religion and the existence of a god or gods to satisfy

that feeling. Another common belief, through evolutionary biology, is that of an instinctual need for an explanation, in order to reduce fear and stress experienced by an individual. Some sociological perspectives on religion might include the means for a ruler to control the masses or possibly the tribal desire to have a community and congregate – we are, after all, social creatures. A neurological view on religion might be that you believe what you were told during critical stages of early-childhood brain development. What I will be searching for in this paper is the possibility that there is something more to this dynamic.

Evolutionary History:

The logical place to start our search is at the beginning of human history when the earliest modern humans came into the evolutionary picture. Please note that the timeline of human development is up for much debate and has encountered several revisions over the last few decades. Therefore the timeline that follows is very general and gives date ranges as apposed to date approximations, in most cases¹ (Wikipedia¹. 2008).

Time Line

- Hominids branch from the ancestor of the chimpanzee, 7 to 3 million years ago
- First tool usage, as far back as 2.6 million years
- First controlled fire between 1.5 million and 700,000 years ago
- First evidence of carnivory, also between 1.5 million and 700,000 years ago
- Homo Sapiens, physically modern humans
 - between 300,000 and 160,000 years ago
 - large change in brain to body ratio
- Modern language, began around the time of modern man
 - between 300,000 and 100,000 years ago,
 - depends on the definition of language as well
- Intentional burial of human remains, again around the time of modern man
 - between 300,000 and 130,000 years ago
 - thought of as first evidence of religion and thought of afterlife
- Sociologically modern humans
 - around 50,000 years ago
 - with modern forms of language, specialized tools, art and common religious activities

Our ancestors during the time of the first tool usage and the first controlled fire were more closely related to the chimpanzee than ourselves. The time between the first evidence of fire and Homo sapiens was a great deal of time, hundreds of thousands of years at least. Then all of a sudden the homo sapien brain developed and during this time the evolutionary tract of human development seemed to accelerate. Fatty tissue in the brain grew to give a much larger brain to body ratio than any previous mammal of our hereditary line (Sagan. 1977). Currently there are only speculations on why this happened; one hypothesis is the change in diet from herbivore to omnivore around the time of the first controlled fire (Wikipedia¹. 2008).

There are a few curiosities about the evolution of the modern human that I would like to point out. For one, there is only one species of human. We had ancestry cousins, but their lines died out and ours carried on. Was it because of our large brains?² Another curiosity is found in the timeline. Primates came in on the evolutionary scene around 40 million years ago (Wikipedia¹. 2008). So it took more than 30 million years to go from primate to hominid with only slight changes in brain size and bodily functioning, with the main change being the upright posture. On the contrary, it only took about 3 million years to go from tool usage during the time of the Neanderthals to sociologically modern humans working in office buildings – a significant amount of brain growth in a much shorter length of time³. The simultaneity of the adaptations and attributes of religion, consciousness, language, and the large human brain is a rather curious thing as well, which we will investigate further, later in this paper.

Religion and Human History:

It has been suggested that religion is a natural occurrence in the development of humans. It would sure seem that way. Religion is found in the foundations of all human cultures, even among cultures that were isolated from the mass majority of other cultures (Dennett. 2006). Many common attributes can be found in different cultures and religions

all over the world. The common likelihood in humans to feel the power of something they cannot explain is widespread and ancient. The first religions were ancestral religions, meaning there was no founder or leader, these religions were just the way of nature that was passed through the generations. It was a more recent sociological development to have founded religions where a human has been idealized and followed⁴.

The Human Brain:

As mentioned before, it seems that the development of the homo sapien brain was a very important developmental achievement in human evolution. It appears to be the changing point that allowed humans to develop the traits we have today. Language developed during the same period. From the mammalian grunting and moaning, depending on mood and desire, developed the ability to articulate what your mood and desire actually are. Also during that period, intentional burial of human remains occurred. The intentional burial of the deceased carries some significant implications. Some hypothesize it to be the first indication of religious thought and the concept of an afterlife. Another implication is that of conscious thought, possibly the person who buried the remains had feelings for the deceased and would not like to see scavengers of the animal kingdom picking apart the body (Sagan. 1977). I ask, why not a little of both?

Consciousness:

Allow me to quickly define the word conscious. In the American Heritage College Dictionary conscious is described as having an awareness of one's environment and one's own existence, sensations, and thoughts. Where as my cat being awake and alert would not be considered conscious in this manner by many people, she is aware of feelings, an environment, and bodily needs but she is not necessarily aware that they are her own. One might say she is lacking a sense of self. I, however, hypothesize that my cat is in fact

conscious as are many other animals. This idea is difficult to test since we are unable to communicate with most animals.

Understandably, conscious thought is difficult to pin point in a fossil record. For instance, some say that conscious thought may have occurred during the construction of tools. A contrary argument would be that non-specialized tools could have been made out of need and adaptation rather than consciously planned out. Tool usage is found in other parts of the animal kingdom as well, such as sea otters using rocks to break open sea shells. However, it is rather widely agreed that someone has to have conscious thought to intentionally bury the deceased. There would be no specific need to bury the dead, no obvious reason to develop that trait for survival⁵. There would especially be no reason to bury the dead with sentiments from their life; that would actually be counter productive if some of those objects could have been useful to the living.

Religion and Consciousness:

It would appear that conscious thought and religion go hand in hand. One must be consciously aware of oneself before belief in something higher may exist, perhaps. In the Bible this moment of consciousness seems to be defined as the knowledge of the difference between good and evil when Eve eats from the tree of knowledge (Sagan. 1977). Carl Sagan suggests this was the indication of the development of the neocortex in the brain, the area of the brain that conscious decisions seem to originate. It is speculated that this could be the reason behind the statement God tells Eve in Genesis 3:16 "In pain shalt thou bring forth children" (Sagan. 1977). Perhaps the sudden growth of the homo sapien brain disallowed the female body to compensate with a larger birthing canal. This is suggesting that painful birth in humans, which is not common to most mammals as such, is due to rapid brain growth. Humans are also the only mammalian species to have babies that are born with a higher body fat ratio than intended to keep throughout adult life (Lambert.

2005). This is because early-childhood brain development requires immense amounts of energy. More energy than normal food consumption and digestion processes would allow.

A commonly perceived conflict between religion and science is the evolutionary development of the senses. A believer of a religion may declare that nothing such as random, lucky or best fit selections and mutations in nature could explain the perfection of the human eye. A scientist may say in response that perhaps evolutionary theory is being misinterpreted in this particular case (Dawkins. 2006). Also that perhaps the complexity of the human eye is being somewhat over stated. Evolutionarily speaking senses and talents in the animal kingdom, of which we are part, came about through detections of external stimuli or random mutations⁶. With genetic adaptations creating receptors for such stimuli, the developmentally lasting senses and talents were determined by the usefulness of a particular aspect. The determining factor comes down to its ability to keep the being alive long enough for it to breed and give the necessary care to its young⁷.

There are traits in the animal kingdom for which complexities are not over stated (according to human standards), one example is the cuttlefish. The cuttlefish is of the same class as the octopus and it is considered to be nature's shape-shifter. Cuttlefish have the ability to reflect light off their bodies at an array of different angles, controlled by pigment sacs in their skin (Brooks. 2008). This gives them the ability to change the perceived color of their bodies as well as the ability to camouflage into almost any background. They also have the capability to control the texture of their skin, making themselves appear shelled, lobster-like, or gelatinous as they naturally are. With these seemingly amazing adaptations, the cuttlefish can hide from most any predator the ocean has to offer. The abilities of the cuttlefish include being able to "talk" to other cuttlefish in a manner in which no other underwater creature may detect (neither can any land creature without technological aide) (Brooks. 2008). They can reflect light off their skin in such a way that causes a polarization of the light; only things with receptors for light polarized in a certain direction may detect their message. This is far beyond the capabilities of the human body; the human eye can

only see a small range of light and does not have the capability to see polarized light without the aide of polarized glasses. In my opinion, that is much more amazing than the simple light refraction our eyes are capable of. Evolutionary adaptations can create amazing things.

What Humans Sense:

Humans have developed a number of senses that aid in our ability to keep ourselves alive. The commonly referred to senses are: the ability to see the visible spectrum of light, smell many commonly found chemical compounds of nature, taste a wide range of flavors, feel things that touch our skin, and hear a reasonable range of frequencies. We have also developed the ability to detect temperature, the ability to notice change in pressures, a sense of balance, and an auditory sense of environment through analysis of echoes, there could also be an argument made for the development of a sense of self and the sense of something higher.

Clarity of senses varies from person to person, for instance I have near perfect hearing (by human standards) but my eyes have worsening difficulty focusing light with each passing year. All human senses are processed in the same location, the brain. For example, it may seem as though your skin feels, when truly it is your brain that feels. The skin detects a sensation and sends a signal through the nervous system to the brain, your brain then deciphers your reaction from the information given (Abelson. 1985). Your brain might receive such information as: was there a large change in temperature, was the feeling focused upon a point or did it cover a larger surface area of skin, were skin cells lost in the transaction, how much pressure was applied and over what surface area, was the skin broken, is the body loosing blood, and with that information your brain decides whether or not you enjoyed the sensation. Most of the above listed senses are assumed to have developed from external influences, such as the existence of light, sound, atmospheric

pressure, atmospheric temperature, air content, and other living things (predators and prey). Most of the above listed senses are common in the animal kingdom, with the exception of two, the sense of self and the sense of something higher⁸.

The Plastic Human Brain:

The evolutionary development of the human brain is a truly amazing thing. Our brains have the capability of repairing themselves. Not only repairing an injury the way skin heals, with the reconstruction of nerve and tissue cells, but the brain can actually change how it functions all together with the mere effort of conscious thought alone. Though it does not seem that self-changing plastic brains are common to the rest of the animal kingdom, which could be why it took so long to discover them. This would be because most of our brain research and testing is conducted on other mammals of the animal kingdom. During my research for this paper, I came across a very inspirational book on neuroplasticity, called the "The Brain that Changes Itself" by Norman Doidge. The second chapter of this book gives the amazing life story of Barbara Arrowsmith Young.

Barbara was born with an asymmetrical brain, meaning she had proficient brain development in some areas and far below regular development in others. She excelled in some aspects of cognitive social conduct and completely failed in others. She could not relate symbols, had much difficulty with cause and effect, was unable to tell her left hand from her right, was unable to read analogue clocks, and had discontinuity in her speech. She had such difficulties in primary school that she was considered mentally retarded and her teachers held the attitude that she would never learn the same as "normal" students. Barbara grew up in a loving and intelligent family but she was under a great deal of pressure from her parents' desire for her to excel in academics. Throughout her younger education Barbara was only able to narrowly navigate around her disabilities using an

exceptional memory. She would memorize such things as five times five equaled twenty-five but had no understanding as to why.

Barbara made it all the way through college and continued on to graduate school in child development studies, using her memorization skills and determination alone. It was during her last years of graduate school that she came across studies done by Aleksandr Luria, a Russian scientist of the early 20th century. One of Luria's patients had similar deficits to Barbara. Barbara was able, for the first time, to define localization in her brain corresponding to her difficulties. It was around the same time that Barbara came across neurological studies done on rats by a Mark Rosenzweig of the University of California at Berkeley. Rosenzweig found that, when rats lived in a stimulating environment their brains were larger and had a better blood supply than rats kept in a non-stimulus environment. For Barbara that was all the proof she needed to believe that she could change her brain with practice.

With her new found hope Barbara created an array of brain exercises for herself. One of her most productive was to test herself with flash cards on reading an analogue clock, which for her had been incomprehensible. She drilled herself on flash cards day-in and day-out for weeks, she did it in a manner that would not allow herself merely memorize the times with the answers but rather force herself to learn the relationship of the angles of the clock hands to the time they indicated. When she was done, she could not only read analogue clocks but she could read them faster than an average adult. She found that through her brain exercises she could then relate symbols, announce words more clearly, and had better understanding of cognitive relationships (Doidge. 2007).

Barbara has no remaining signs of her former retardation. Barbara owns and operates a school for "learning-disabled" children and adults. She has repaired the minds of many, many people who were told there was no chance for their improvement. In many religions they might suggest that Barbara had been blessed by god and god allowed her to heal. This may be the case, I couldn't really say. But to me it sounds like it was Barbara's

will power to study and her belief that she could, in fact, repair her brain that allowed her to do so.

There are countless cases like Barbara's; someone may be born with a brain defect, receive an injury to their brain, or have a health problem disable their brain in one manner or another. All of the instances I have read in which someone focuses all their effort and spirit, so to say, into working hard on exercises that will repair their brain, achieve just that, they actually change the functioning of their brain and repair it (Taylor. 2008) (Doidge. 2007). This could help explain to those of us who know science, how religion can physically heal someone.

It has been scientifically known, for a couple of decades now, that prayer/meditation and belief in religion have the physical ability to heal (Koenig. 2002), and it seems as though, in the last 100 years, we've come across the reason why. The human brain is plastic, it changes and adapts as well as anyone will allow it to. The belief that you will be healed heals you. This may also be related to the placebo effect, if you believe you will be healed or changed by taking a drug your brain will allow that form of healing or change to occur (Lambert. 2005). It could be argued that this ability would not be possible without a sense of self. If you are unaware you have something to repair you are unable to repair it.

Collective Consciousness:

The birds do it... the bees do it... even the fishies in the seas do it... let's use our collective brain!

What is it, to have a sense of a higher power? Some have described it as feeling the eternal love inside oneself. Some say they can sense it with their brain, that when they pray something/someone is listening to them. When I was a small child, I described the feeling as sensing someone is looking at you, when there is no one else in the room. That brings up yet another sense, the circumstantial sense that someone is looking at you.

You get an uncomfortable feeling so you look up from what you are doing and sure enough you are being stared at by another living creature. I hadn't received a satisfactory explanation for this phenomenon until I came across the book "The Global Brain" by Howard Bloom (Bloom. 2000). This book explains how there is a universal consciousness that humans are tapped into. I suggest that this 'tapping into' occurred during the massive growth that created the homo sapien brain. We formed another sensor in our brain that is able to detect the external stimuli of the collective consciousness and have called it the higher power. So, as some might hypothesize, we are connected to a universal consciousness created by all living things. There are many good reasons to develop a sense such as feeling another living creature's gaze. The main one being when predators are stocking prey, they rarely let the prey out of their sight⁹. Does a universal energy emitted by all living creatures explain this phenomenon?

Now the question arises, why hadn't the global brain been scientifically explained before? Like many of your senses, when exposed to the same level of stimuli for a long period of time your brain considers it to be background chatter and blocks the signal (Abelson. 1985). Take for instance the smell of cigarette smoke. To a smoker they do not perceive themselves to smell but to a non-smoker the smell can be overwhelming. If you are born with the same level of a sense of collective consciousness that you maintain throughout your life, it is likely that you would never make a big deal of it or even notice it.

I have a memory, from when I was a child, of explaining the feeling of being looked at to one of my play-mates. In response to my explanation I was told that the adults say it is part of the imagination to feel someone's gaze. I was a skeptical child and therefore could not just ignore it as my imagination, so I started to pay close attention to it. As the years passed I seem to have attuned my sense of someone else's gaze. The problem comes in with testing, when I tell someone about it they pay attention and attempt to test my hypothesis and it rarely works. It seems that I, being the scientist that I am, should then disregard this sense as being, in fact, part of my imagination.

It was in physics that I found evidence that, perhaps, I'm not just imagining things. In physics you come across wave phenomenon, wave-particle duality as defined by Albert Einstein. As an extremely fascinating element of the wave-particle duality, if you attempt to measure the wave-property it collapses the function (meaning it is not measurable by detection, only by probability) (Harris. 2008). As an example let's look at the wave of an electron¹⁰. You can *observe* the wave-property of an electron by watching the interference pattern that forms (only waves create interference patterns) on a phosphor-luminescent screen when shooting electrons one at a time through two very tiny slits, at the screen. This indicates that the electrons have an associated wave property that allows them to interfere with themselves. However when you watch to see which slit each electron is going through it collapses the wave function, and you no longer get an interference pattern on the phosphor-luminescent screen. Therefore you may observe the phenomenon but you cannot measure it. It is not required that a living eye be the detector that collapses the wave phenomenon, computer detectors do the trick as well (Harris. 2008). I suggest that the problem in detecting the collective consciousness is that if you try to detect it the phenomenon is nullified in the process. Though you may be able to observe the phenomenon if you aren't paying any attention and are not putting conscious effort into doing so.

Life and Scientific Cosmology:

There are many types of life, how do you describe the living? Plants are alive and animals are alive, that's widely agreed upon. Is our planet alive then? It has a functioning cellular system, it has a life span, it gets sick at times. However, planets do not reproduce, but solar systems do. According to the Big Bang Theory, the universe started as a hot ball of plasma, then slowly calmed down and formed particles, the particles cooled further and formed atoms in a gaseous state. At this point you get a breaking of hypothesis, some cosmologists say that the gas formed gigantic gas clouds that condensed in to quasars and

similar massive objects (commonly known as baby galaxies) and the quasars evolved into modern galaxies you see today with stars and solar systems a plenty. The other line of thought is that from the original gas ball, after the plasma cooled, the universe started to condense down into gas clouds that then formed the first generation of stars. These stars gravitated together and formed the galaxies you see today (Eberhardt. 1998). I ask, why not a little of both?

The life of a star is said to be as such, a planetary nebula of gas starts to condense down and heat up due to the conservation of angular momentum and a star (with or without a solar system) is slowly formed. Stars of different masses have different life spans, a star such as ours lives for approximately 10 billion years before it goes red giant and dies. After star death a new planetary nebula may be formed. The new nebula may eventually condense down to conserve angular momentum and, if the conditions are right, it could create a new and different solar system. Though it may not be conscious, that sounds like a life cycle to me. So if all life in the universe is giving off an energy and that is what the collective consciousness is, that sounds pretty god-like to me! If this is what we are detecting when we feel someone else's gaze or feel a higher power we would like to pray to, that would make sense to my scientifically founded brain.

Universal Energy:

So what is this higher power, collective consciousness, universal energy-thing, anyways? What is the particle of interaction? In order for there to be energy, something has to have it. Photons (light) can have energy and particles can have energy (electrons, muons, protons, ect.) but the lack of matter (free space) can not have energy (as far as current scientific theory tells us). In astrophysics there is a working hypothesis called dark energy. There is little evidence, mainly just math equations where you have to have an energy result. This dark energy is supposed to be everywhere in the universe and is

supposed to be the reason the universe has been measured to be accelerating in its expansion (Harris. 2008).

Now let's look towards religion, many forms of the earliest religions such as shamanism and paganism, have held a belief that every thing emits an energy, some kind of universal energy that is found everywhere. It is not required that it be a conscious form of life that has the energy, but just that it is living. This belief has survived many, many generations and is still found today. It's still in the modern shamanistic and pagan religions, of course, and it is found in founded religions (religions with an idealized human founder⁴) as well. Take for instance godhead, the universal form of god in some Christian cultures and also in forms of Hinduism (Wikipedia. 2008). So could these two differing belief systems of a universal type of energy be referring to the same thing? If you asked an expert of either, their most probable answer would be no. Could dark matter be the collective consciousness? In my opinion, this requires further examination and research.

Urchinism:

When I was an adolescent my friends would ask me what religion my family was, and whether I believed in god. Not knowing the true beliefs of established religions, I did not know how to answer so I decided I required my own religion. I named it Urchinism, after my dad's nickname for me, Urchin. It all started as just telling people I believed in it, without ever giving a clear explanation of what exactly *it* was. Then came my first holiday; Cookie Day. Cookie Day involves staying up late (a Sunday night) with close friends and family and baking cookies. The next morning (the first Monday in March) you go to your place of business, in you pajamas, and pass out the cookies that have been made with much love and joy. The point of the First Holy Day of Urchinism is to make everyone's day one cookie better.

My belief system has come to this, I have defined Urchinism as thinking that the big bang occurred when some beyond-macroscopic entities “made a baby” and the universe we perceive is actually the tiny particles (galactic shaped atoms, so to say) that make up the beyond-macroscopic baby’s brain matter. Our universe will continue in its expansion until the brain barring entity grows old and dies, known in physics as the big freeze. I envision that upon death of the brain barring entity, as it decays into the “earth” of the beyond-macroscopic home planet, it will appear as though, from our plane of perception, that we are colliding with the many parallel universes that we have been accelerating towards for so long (I wish I could convey the picture I get in my head when I think of this collision but I lack the ability to put it into words).

I also like to believe that on the beyond-macroscopic scale, every entity (brain barring or not) in that universe contains an our-scale-sized universe, in theoretical physics this could be perceived as the parallel universes. In addition every entity in *our*-scale-sized universe contains a beyond-*microscopic* universe. This fractality would continue on, in both directions, infinitely (directions meaning, macroscopic and more macroscopic as well as microscopic and more microscopic). Similar to how it is hypothesized in physics¹¹ (and some forms of Hinduism), there are infinitely many universes exactly the same as our own, there are infinitely many universes different from our own, and there are infinitely many universes exactly the same as another universe that is different from our own. Physics Based Urchinism is the improvable and undeniable belief I maintain; and pending further data, my beliefs and self-truths will remain improvable and undeniable. (Now if I could only get tax exempt status ☺)

For science to have a clear definition of what is really going on in this world of consciousness, it is going to take much more thought and further experimentation – most likely taking many, many generations. So, for now, I will believe how I feel comfortable with, because it’s not hurting anyone in me doing so.

In Summary:

People believe in something because it makes them feel ok with existence and them having to exist within it. Religion has been at the base of all cultures because humans have a sense that seems to require explanation. Religion and consciousness appear in archeological history at the same time because it seems you must have a sense of self to have a sense of something more (the development of the homo sapien brain). And prayer can heal because your brain believes it can and will therefore allow it to.

The claims made by this essay include but are not limited to: humans are sensing something with universal energy and it is called the collective conscious which possibly interacts through the medium of dark energy, the human brain is the magnificent entity we've sought out to explain, we have the power within ourselves to sense the collective consciousness and learn from it, and we have the power to heal ourselves. If I were going to give a name to the vast energy of collective consciousness, the only encompassing word I can think of is god.

How do religious belief and scientific belief come up with similar explanations? Could it be that in science, we are only able to test for things that our brains can conceive that we should test for? Is it because we test for things that we think are there? How would you intentionally test for something you didn't already think was there? How could you test for something like a collective consciousness? These are questions I intend on perusing further in my career as a scientist (and Urchinist). Like the human brain's capability to adapt itself to a changing world, science (and Urchinism, I might add) is the "religion" that has the capability to adapt its beliefs (hypotheses and theories) as new information is uncovered. In the words of Isaac Asimov, the only constant is change...

Notes:

1. The reference I used for the timeline is Wikipedia. Though, not known to be the best reference tool, I believe for this purpose it is the most up to date, however. The keywords I used to find this information are: Human Evolution, Homo Erectus, Archaic Homo Sapiens, Control of fire by Early Humans, Origin of language, Origin of Religion, development of religion, Hominia, and timeline of human evolution.
2. This is a hotly debated topic!
3. As previously stated, the hereditary line of the homo sapien is widely debated; there are a good number of scientists that do not believe humans are descendent from Neanderthals.
4. I'm not saying there aren't good and justifiable reasons to follow the person in question.
5. It has been speculated that it could have been to prevent the spread of disease, but if that were true it seems like more species would have also developed that trait.
6. In astrophysics one is taught that cosmic radiation (highly energetic particles), are passing through the earth at all times. The particles are such that they have an unlikely probability of interacting with matter structures. On rare occasion a cosmic ray will interact with the matter in living DNA and this interaction will create a mutation in the DNA. Through regular evolutionary processes these mutations may or may not be passed down to future generations and species. Creating the possibility of random mutation as apposed to adaptations to environment.
7. Mass reproduction also improves the chances of a species survival, take the rabbit or fish for example.
8. I cannot actually say for sure if other members of the animal kingdom have a sense of self or a sense of something higher, I'm merely stating that it is not believed to be a common trait among seemingly non-conscious creatures, according to the majority of scientists.
9. There could be an argument made for the sense of something paying attention to you in general, not just looking at you. The claim that when your ears are burning someone is talking about you may not be too far fetched. Some animals that stock their prey will actually loose sight of the prey if they can find a better angle of attack. So being able to detect some creatures intentions towards you would be a very helpful thing as well. Have you ever known someone was talking about you with out them looking at you or being able to hear them or when they are speaking a language you don't understand? I get this impression somewhat frequently, but if it was merely paranoia you would think I would get it all the time. It could be from body language and gestures that I pick up subconsciously, but I don't notice that consciously so I have to consider all possibilities.
10. Though wave-particle duality was hypothesized by Albert Einstein, it was Louis de Broglie that hypothesized and provided adequate evidence for matter waves such as that of the electron. Einstein was referring to light and it's particle properties as well as its wave properties not necessarily massive particles such as the electron.
11. In physics, the existence of parallel universes is rather disputed. It is strictly a hypothesis because no one has thought of a way to test for it, in order to create a theory.

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