

**ALPHABETICAL BRAIN™ VOCABULARY
HUMANIST FAMILY BRAIN STUDY**

**DETAILS ABOUT YOUR
CORE CONSCIOUSNESS**

June 8, 2016

**WHAT IS YOUR
CONSCIOUSNESS
AND WHY IS IT SO IMPORTANT?**

What is the purpose and the function of your consciousness? Your consciousness is essentially your self-organized memories.

Your consciousness is what makes possible your awareness of being alive. And it gives you your experience of being you. You cannot have a sense of self without being conscious.

Closely related to consciousness is your conscience. It is an expression of your personal values. And your values describe your purpose for living.

Then what is the special relationship between consciousness and your conscience?

Fundamentally, being conscious makes it possible for you to have a conscience. And your developing conscience makes possible a meaningful happy life because your evolutionary brain emerged in the cosmos after countless natural evolutionary changes where altruism and empathy beat selfishness and narcissistic self-centeredness.

In short, the practice of happiness and gratitude won out over fear and anxiety in the battle for achieving a consequential meaningful life. That is why we have huge cities all around the world that demonstrate the practical

reality of cooperation, collaboration, and love.

The new scientific vision of reality is described by the assumption that your consciousness is caused by the global connectivity of all of the neuronal pathways and all of the nano-microscopic biochemical signaling processes in your brain and nervous system.

It is helpful to start by simplifying the explanation of the most complex three pounds of matter in the universe, which is your brain.

Your brain can be understood best by connecting the 15 major brain ideas featured on this website and describing them in an all encompassing practical definition of human consciousness.

The definition of the true source of your human consciousness can be summarized as the massive global neuronal connectivity of your brain and nervous system.

The source consists of the complete biochemical circuitry of your brain and nervous system, including all of the neuronal pathways and all of the nerve tracts with all of their hundreds of billions of connections among all of the neurons and all of the synapses that connect the neurons to all of the physical structures of your body.

This massive neuronal circuitry provides a kind of super connectivity unknown in any current digital devices or industrial electrical or electronic circuits ever engineered or even imagined.

The neuronal circuitry of your brain and nervous system provides you with your spectacular self-awareness and the ability to learn anything and change your mind at any time.

FIRST ASSUMPTION: your brain's physical structures are the source of your brain's functions and your mind's self-awareness.

For normal functional purposes, your self-awareness can now be universally thought of as being your consciousness, which is unique throughout the cosmos.

All of the neuronal fibers and all of their synaptic connections throughout your brain and nervous system must be understood literally in all of their connections and holistically in all of their microscopic and macroscopic levels of reality for you to control your brain and body well enough to use your brain and nervous system effectively to solve the complex problems of living in the 21st century.

With some focused study, you will be able to name the distinct operational structures of your brain and nervous system that explain the way the parts of your brain and the rest of your body communicate with each other.

Metaphors and analogies are helpful for explaining some incredibly complicated microscopic neuronal and cellular processes at the molecular and quantum-effects level of reality.

However, abstract metaphors and analogies are just words that help people understand the reality of more complex phenomena. They should never be assumed to explain brain functions when real scientific explanations are known and can be described by brain scientists and medical researchers.

For example, it would be a big mistake to simply believe with no evidence that guardian angels or fairies intervene among your brain, heart, lungs, stomach, or muscles so

you can walk or run or think or feel.

By learning how your real bodily communication system works, you will be able to decide how to use the new scientific knowledge to manage your behavior from day to day and year to year --- to your advantage throughout **the rest of your life.**

SECOND ASSUMPTION: you can freely choose to keep your brain fit and your imagination expanding into old age --- if you know how your brain functions.

Your sense of self or self-identity is caused by the physical structure of your brain and body, which is now known as your connectome.

The new scientific word connectome is the name that describes all of the biochemical currents (signals) in your brain and nervous system at the nano-microscopic molecular quantum-effects level of human existence.

The word connectome describes empirically what used to be known as your "brain and nervous system." What was missing was an understanding of how your brain and nervous system were connected at the nano-microscopic level of reality.

Since brain scientists have figured out what happens when your conscious awareness of something is saved in your long-term memory system, this means that you now have the opportunity to memorize this mental process in order to significantly improve the operation of your own memory resources.

What is at stake is knowing the intimate relationship between your working memory and your long-term memory. It is absolutely critical to your health and longevity.

Biochemical currents and action-potential spikes initiated by your thoughts and emotions cause the strengthening of the electrochemical signals from your working memory (in your prefrontal cortex) to your long-term memory (in your hippocampus).

The new scientific linguistic structure describes the functions of human brains and minds best. Brains are the result of millions of years of natural evolutionary processes. Minds are the result of very recent cultural developments, particularly the emergence of human alphabets and languages during the past 5,200 years of human history.

In addition, the new vision of your sense of self or self-awareness is grounded in the newest understanding of the human evolutionary processes of nature and the emerging knowledge of the human genome and especially epigenetics.

This leap in scientific understanding makes possible a new understanding of your potential to change your behavior because of your brain's neuroplasticity whenever it is necessary for you to make changes in your life --- either to survive or to increase your pleasure or decrease your pain.

Since you are a biologically driven human being with your priceless consciousness, there is no need anymore to believe in the traditional delusional Cartesian mind/body dualism (separation) that has allowed religious authorities to manipulate the lives of their followers for several centuries.

THIRD ASSUMPTION: the new brain knowledge conveyed on this website includes correct explanations of the 15 major brain ideas, including the 15 declarative statements, which explain the meanings of the 15 brain

ideas in relation to each other. In addition, there are 15 memory boosting acronyms or unique "memory codes" that can help you remember the brain ideas and supporting facts faster.

Together, these linguistic features of the new brain knowledge are assumed to be the most important stuff to know for all aspects of self-control from eating to sexual fulfillment through the arc of a human lifetime.

**SEEING IS BELIEVING,
AND REPEATING IS LEARNING!**

You can quickly explore the connection between the idea of human consciousness and the new brain idea of the global neuronal connectivity of your brain and body by momentarily focusing your attention on the following circular symbol and all 15 red arrows surrounding the circle:

**THIS SYMBOL REPRESENTS A
SIMPLIFIED HOLISTIC VIEW OF THE
GLOBAL CONNECTIVITY NECESSARY
FOR HUMAN CONSCIOUSNESS**

The **Circle of Consciousness** symbol was created to convey a powerful visual image of the previously unimaginable coalescence of the many diverse and interactive physical brain structures that form the awesome new idea of your self-manifesting holistic evolutionary brain.

The symbol shows 15 red arrows pointing toward the **Circle of Consciousness**. The diagram depicts a living human brain, which is made up of many parts, with a sum total of literal and metaphorical meaning that is greater than all of its separate parts.

When your brain's physical structures are functioning

properly together, your brain is using 100% of its mental capacity when you are aware of yourself thinking or feeling or doing anything.

When the distinct parts of your anatomical brain are functioning properly together, they operate both interactively and synergistically to produce your mind's virtually unlimited thinking and feeling capacity, which is your wonderful creative imagination.

Each of the 15 major brain ideas named in the **Circle of Consciousness** symbol can converge and merge in your mind to produce the enlightened awareness that the plasticity (neuroplasticity) process is one of the primary causes that makes possible your mental force.

Then all 15 declarative statements, which define the 15 major brain ideas, can be consolidated into your long-term memory system where they will be accessible for use when you need them.

In addition, your working memory can be thought of as your "creative memory" since it allows you to be creative at any moment that you are conscious of the need to be creative.

The special relationship between your working memory and long-term memory is depicted in the **Circle of Consciousness** diagram by their positions around the circle where all 15 brain ideas are bookended between your two essential memory functions, brain idea #1 (working memory) and brain idea #15 (long-term memory). These two memory functions are so important for your survival that you should never forget them --- ever!

When your neuronal pathways are healthy, the potentiation (long-term potentiation) signaling process

allows signals to flow from your prefrontal cortex to your hippocampus and back again (back and forth within separate neuronal pathways) to provide you with your sense of self and your capacity for free choice and self-management.

In this context of real knowledge about the physical world and the new understanding of your mind's mental force, it has been proven that the biochemical currents which energize your brain and nervous system have an extremely low voltage compared to household electricity (110 volts) or commercial voltages (220 volts).

The electrochemical "resting" membrane potential of a nerve cell is about -70 millivolts (-70 thousandths of a volt of electricity) or -0.007 volts, which means that the cell interior is negative with respect to the external environment of a cell. When one of your nerve cells fires an action potential spike, the voltage increases to +30 millivolts (+30 thousandths of a volt) or +0.030 millivolts which is a total displacement of 100 millivolts (100 thousandths of a volt).

Biochemical signals, which start in neuron cell bodies, stimulate neurons by causing action-potential spikes that travel just a few inches from the physical structure of your two prefrontal cortices to the physical structure of your hippocampus.

It has now been proven conclusively that neurons can make new connections throughout your whole life since there are multiples of the dendritic and axonic connections that unite your 100 billion neurons and 900 billion synapses, making the total number of connections impossible to count in your brain and body.

The reason is that the number depends upon the unique experiences, which each person has during his or her lifetime, that give each person a different unique amount

of dendritic and axonic terminal connections. It is estimated that the number of dendritic connections among neurons can range from one (for special mothers, grandmothers, and super famous celebrities) to an average of 10,000 connected to each neuron.

In addition, almost all of the new neurons after your birth are limited to your hippocampus where stem cells are transformed into neuron molecules to store new long-term memories, by making new connections among your new and old memory molecules, and your two olfactory bulbs, where stem cells can be transformed into new neurons to replace the old neurons that are disabled whenever you smell anything.

All odors kill neurons when they attach to the molecules in the odors or smells or you would never have survived (collectively as Homo sapiens) to evolve with your other senses and be alive today!

This awesome plasticity process, which is beautifully illustrated by the creation of new neurons for storing new long-term memories in your hippocampus and for giving you the sense of smell in your olfactory glands, has another dimension in the way existing neurons are connected to other existing neurons to make possible all aspects of the learning process itself, which involves new connections among existing neurons in all of your neuronal pathways.

This physical phenomenon of synaptic plasticity has been verified repeatedly by experimentation during the past 20 years.

Also the idea of synaptic plasticity, which explains what happens when you learn anything new or are simply conscious of perceiving anything, is widely accepted among brain scientists especially during the past few

years.

The fact that the uncountably numerous tiny neurons and the tiny nano-microscopic biochemical currents (ionic signals) can be seen and measured in real time as they flow from some large neurons through synapse gaps to reach muscles, organs, and other neurons has provided new insights into how important healthy brains are for making possible fully functioning people.

Even though your brain is a singular unit, it is useful to describe your brain as having four separate physical structures. The four basic structures include your cerebrum, limbic system, cerebellum, and brainstem. They are separated by membranes called fissures.

Crucial activators are inside each of the structures: some activators are associated with your conscious willpower located in your cerebrum; and some activators are associated with your feelings located in your limbic system; while other activators are associated with your unconscious behavior located in both your cerebellum and brainstem.

For example, your prefrontal cortex is the source of your "executive function" and is located in the two frontal lobes at the front of your cerebrum just behind your forehead with neuronal pathways to all of the other areas of your brain.

The biochemical currents and action-potential spikes emitted from the cell bodies of your neurons, which connect your prefrontal cortex and your hippocampus, strengthen the signals in the neuronal pathways from your working memory (in your prefrontal cortex) to your long-term memory (in your hippocampus) and back.

Now that modern scientific knowledge can explain how

your billions of neurons and trillions of synapses are attached to each other and how they create your coherent sense of self, it is important to understand what is known.

Foremost is the idea that your prefrontal cortex has the supreme function of controlling your most important organ systems either consciously or unconsciously, which means that it controls all of your body's movements willfully or by using habits.

Once a new idea or activity is practiced a little bit, the conscious awareness needed to remember it can be converted to unconscious processes to save conscious cognitive energy for unknown emergencies in the future.

It is called cognitive reserve and it is an essential behavior pattern for long-term health and longevity itself. That is why habits are important.

Moreover, it is important to remember forever that your prefrontal cortex evolved to keep you alive as long as possible on planet Earth. The significance of having an evolutionary awareness of your basic biology and psychology is enormously important.

To activate your mental force, all of the neuronal fibers and all of their synaptic connections throughout your brain and nervous system must be connected through all of your body's neuronal pathways and all of their nerve tracts.

Therefore, your prefrontal cortex has the supreme function of consciously controlling your most important organ systems needed for the conscious and the unconscious control of your body's movements and memory recall.

Also the phrase executive function denotes specifically

that your prefrontal cortex is the source of your thoughts, which can control your body with the assistance of your feelings.

However, it is important to constantly upgrade your logical reasoning ability (critical thinking and reading skills) in order to actually make better choices regarding the ethical (personal) and moral (social) decisions you make.

This means that, if your brain is healthy and your brain's physical structures are functioning well together, your brain is using 100% of its mental capacity when you are aware of yourself thinking, feeling, remembering, or doing anything. Moreover, it is important to remember forever that your prefrontal cortex evolved to keep you alive as long as possible on planet Earth.

As you solve the problems you are faced with in life by making decisions, feeling emotions, or doing something to accomplish your goals, your prefrontal cortex must be functioning superbly to give you decision-points to make your life feel sensible and to help you do your personal best. Otherwise, you would not know who you are! Or, who you were!

Typically, most people experience their mental force, which is called brainpower in many self-help psychology books, as their creative imagination and their ability to solve problems by using their critical thinking and reading skills.

You will be able to activate your own unique mental force when you understand how important it is for you to interact with other people, such as your family and social network and fellow workers, primarily through your ability to reason and use sophisticated language skills to create a meaningful life for yourself.

In addition, your mental force gives you the curiosity and motivation to solve problems by using your own intellectual capacity to reason based on the cultural context of your personal knowledge and your language skills, including your active vocabulary.

Since curiosity is the primary motivation you need to get started with your brain study, you need to ask yourself two basic questions: "**How does my brain work**"? and "**What is the purpose and function of my consciousness**"?

To take advantage of the memory boosting power of sensory immersion, you should write down a few statements on paper or in the cloud or in a text file to document the amount of brain knowledge you possess at the moment and how you feel about its impact in your life.

Now that it is known that the source of your mental force is your well-tuned organized mind, it is important to continuously upgrade your ability to reason logically by purposefully using critical thinking and reading skills to make better choices regarding all of your important decisions, whether ethical (personal) or moral (social).

When the 15 major brain ideas are mindfully integrated into your self-awareness of life, based upon the emergent factual biological knowledge about evolution, your mind's mental force can control your feelings under normal conditions.

Even traumatic experiences can be dealt with through training, the way emergency first responders and combat soldiers are now trained to deal with extreme traumatic situations and still be able to make important decisions in the context of chaos.

Remember, "**If it's to be, it's up to me!**" This famous

slogan is used by cognitive self-help therapists and coaches and will be explained later in the skill-set training exercises on this website.

You have to take the lead and use the new brain ideas to create a personal plan to use them properly. Or they may remain scrambled inside your cerebral cortex and limbic system unable to provide you with a clear focus concerning their appropriate use in the future.

However, if you plan to systematically rehearse the new brain vocabulary, you will be able to recall the proper brain ideas at the right times when you need to make the correct decisions to optimize your use of time to achieve your goals.

The brain ideas can help you establish what is real and what is fake about all the abundant choices you have in our advanced digitized high-tech global society.

By avoiding dangerous addictive habits and useless social behaviors whenever you can, you will be able to create more precious time to achieve your most important goals. Recent scientific studies have demonstrated that you can optimize the functions of your brain by simply learning to relax more and by focusing on whatever interests you the most.

Also you can boost memory retention by writing down notes and by using the spaced repetition method of memorization to create a personal immersive multisensory learning environment inside your head with the assistance of multiple bodily senses as you study the new brain information.

The new brain knowledge can be used to help you live better and make more efficient decisions in the real world of cause and effect according to the principles of modern brain science.

Many books with the latest brain research findings are outlined in other sections of this website. They can give you a head start choosing the best scientific evidence available to expand your mental force and reduce your anxieties, fears, toxic stress, and depressive self-talk.

Finally, if you want to have a healthy brain, it is crucial that you eat, sleep, exercise, and relax enough at all ages, since good blood circulation is required at all times for good brain health. These are among the many reasons why some people can think better than others.

In other words, your mind can activate your mental force and empower you to express your conscientious humanistic values in order to help you achieve your most fulfilling goals.

In addition to the free brain information on this website, there will be additional factual brain ideas at the **Alphabetical Brain™ App** that will be launched soon to provide more evidence of the validity of the relevance of the 15 major brain ideas featured on this website.

The symbol of the **Alphabetical Brain™** symbol stands for the importance of understanding the relationship between your language and brain functions. The **Alphabetical Brain™ Vocabulary Website** provides the best brain information in an educational format that is easy to understand.