

**ALPHABETICAL BRAIN™ VOCABULARY**  
**Brain Flash Card #10 / May 5, 2016**  
**BRAIN SCIENCE FACTS**

**WHAT IS YOUR BRAIN'S PLASTICITY  
AND WHY IS IT SO IMPORTANT?**

What is the purpose and function of your brain's plasticity? The evolutionary purpose of your brain's plasticity (neuroplasticity) is that it makes you adaptable by giving you the ability to learn from the changes in your environment so you can survive and thrive.

The process of plasticity includes your ability to modify your language as you get older and to manage your habits as you have more challenging life experiences.

It is helpful to simplify the most complex three pounds of matter in the cosmos (your brain) by integrating the idea of your brain's plasticity with the overall concept of the global connectivity of your brain's structures and their functions.

You can explore the relationship between your brain's plasticity and the new idea of your brain's global connectivity by momentarily focusing your attention on the following circular symbol and the #10 red arrow:

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

This circular 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 wonderful new idea of your self-manifesting holistic brain.

The symbol of 14 red arrows pointing toward the circle of human consciousness depicts a conscious living human brain that is made up of many parts with a sum total of metaphorical meaning that is greater than all of its separate parts and functions.

Each of the 15 brain ideas in the image can converge and merge in your mind to produce the enlightened awareness (inference) of the self-directed neuroplasticity process of learning the truth about your intrinsic intellectual brainpower. Or, more simply put, you will be able to activate your natural inherent mental force.

In addition, by being aware of the massive complexity of your connectome's circuit structures, you will be able to understand how it makes possible your brain's plasticity and, therefore, your mind's infinite adaptability.

Now modern scientific knowledge can explain in plain English the way in which your billions of neurons and trillions of synapses are attached to each other and also how they function together to create your coherent sense of self and your incredible self-awareness.

This phenomenal adaptive cellular communication process of plasticity is also known as synaptic

plasticity since your neurons and synapses are involved in the ionic exchange of potassium and sodium isotopes at the location of each of your 900 billion synapses.

It is important to realize that the process of synaptic plasticity depends upon how well all of the other interactive and interdependent parts of your connectome (brain and nervous system) are functioning at the same time.

The biological cause of your ability to experience the feeling that you can choose your own behavior also gives you the capacity to learn new ideas and skill-sets and unlearn old feelings and attitudes when necessary. When you know how the plasticity process works at the microscopic quantum level of reality from a scientific point of view, you will be able to learn how your connectome network functions.

This new knowledge can give you the brainpower to be a creative person with self-motivated willpower and the freedom to choose from a large number of attitudes and behaviors in the secular global culture of the 21st century.

Since you live in the most technically sophisticated civilization that has ever existed, your choices are only limited by your own personal motivation to create your own goals and plans for achieving them.

However, your personal freedom is constantly being threatened by potentially destructive cultural pressures to conform to the goals and

plans of others due to the powerful socialization forces that all children are born into and all adults are exposed to throughout their lives.

Every day your brain is vulnerable to hidden cultural pressures that can shape your behavior, if you are not aware of them and if you let them!

Prominent among the many negative cultural influences that can upset your brain's delicate fragile balance are the steady stream of distractions from the mass media and social media marketing companies.

Many commercial memes are dangerous to human brains since they are misleading and distort or exaggerate the importance of health information only for greed rather than providing transparent options for consumers. Also they often manipulate politics and economics and ancient religious beliefs in order to confuse and frighten consumers into making bad financial decisions.

The total massive volume of the disruptive images and sounds from the mass media and social media and other cultural institutions can diminish your sense of self and personal creativity and also reduce your happiness if you passively let them influence you.

Nevertheless, you can learn to protect your brain and mind from the false menacing metaphorical memes and other negative cultural influences.

**YOUR BRAIN IS BEING ATTACKED  
DAILY BY CULTURAL LIES AND  
MISINFORMATION THAT INCLUDES  
SUCH THINGS AS FALSE ADVERTISING,  
HISTORIC FALLACIES, AND MYTHS  
ABOUT POLITICAL, ECONOMIC, AND  
ANCIENT RELIGIOUS BELIEFS**

Some false cultural metaphors are memes (rhymes with teams and themes and dreams).

Cultural memes are ideas, beliefs or belief systems, or patterns of behavior that can spread throughout a culture either vertically by cultural inheritance (as by parents to children) or horizontally by cultural acquisition (as by peers, the information media, and the entertainment media).

Also memes have the characteristic of being pervasive thoughts or thought patterns that replicate themselves through cultural means (socialization), such as cliches, or a parasitic code, or a virus of the mind especially contagious to children and impressionable adults.

In addition, a meme is the fundamental unit of information, analogous to the gene in emerging evolutionary theory of culture and epigenetics.

However, by learning the new brain vocabulary and by making healthy educated decisions regarding your own personal and family welfare, you can reduce the damage that negative cultural influences can do to your mind's mental force.

Instead you can focus on the positive facts and ideas learned by using the scientific method to investigate your brain's mental force as well as nature and the cosmos. When you learn the new brain vocabulary, and also the new propositional logic of the scientific method for strategic thinking, you will be developing your own unique reasoning ability at the same time.

As you develop an open-ended humanistic mindset, you can become an expert at distinguishing things which are enriching positive cultural facts that can support your mind's mental force and things which are delusional negative cultural fallacies that can damage your mind's mental force.

Cognitive therapists realize that the huge volume of distractions caused by the mass media and social media are a substantial cause of the epidemic of ADD (Attention Deficit Disorder) and ADHD (Attention Deficit Hyperactivity Disorder) sweeping our country among both children and adults.

Also by learning how your mind's mental force can control brain functions related to the management of anxieties and fears, you can create effective strategies to cope with extreme chronic stress that can damage your mind and body over time.

In addition, many pleasurable activities that are repeatedly promoted by businesses, such as drinking alcohol and taking drugs, or eating processed foods that contain huge amounts of

sugar, salts, and fats, can become destructive to your brain and body because of their highly addictive chemicals.

What happens is that both addictive chemicals and negative thinking habits can change the normal healthy processing of neuronal signals during potentiation (long-term potentiation).

Potentiation is the biochemical transduction process that strengthens the saving of new habits and memories. For example, people who are depressed or have anxious thinking patterns or excessive stimulation due to negative thinking or chemical drugs (such as alcohol and marijuana) can physically change the pleasure circuits of the brain, usually for the worse and sometimes forever.

However, you can learn to filter out cultural negativity and cultural memes, especially the ubiquitous advertisements designed to manipulate your buying decisions by influencing your emotions.

You can make wiser decisions when you know the genuine facts about how your brain works.

**RECOMMENDATION:** Print this PDF version and read it. Underline or highlight with colors the most important new brain ideas to save them in your long-term memory. Then edit this text to personalize it and read your edited version of these ideas in a few hours and in a few days and then a week later to take advantage of the spaced-repetition method of learning.