

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

**DETAILS ABOUT
YOUR WORKING MEMORY #15
September 9, 2019**

**WHAT IS YOUR LONG-TERM MEMORY?
AND WHY IS IT SO IMPORTANT?**

The evolutionary purpose of your *long-term memory* system is to consolidate memories that are useful for survival purposes in the future. This awesome purpose can be understood by learning the distinctions among your four kinds of long-term memory, which are inseparably linked with your working memory.

Your long-term memory consists of these *three* kinds of *declarative memory*:

- [1] *Episodic memory* for recalling events;
- [2] *Semantic memory* for recalling facts; and
- [3] *Autobiographic memory* for remembering who you are.

These three kinds of "**explicit memory**" are the essential cause of your unified self-identity. Knowing who you are is the primary function of the interaction between your long-term memory system and your working memory system functions.

In addition, your *long-term memory* system consists of one kind of non-declarative memory that is known as your *procedural memory* or "**muscle memory.**"

This type of "**implicit memory**" involves such routine activities as brushing your teeth, driving a car, doing yoga positions, or plain exercising.

Your *procedural memory* works in conjunction with your *cerebellum* and the *reticular activating system in your brainstem*. (Source book: **Working Memory**, 2013, page 160).

The significance of knowing about your long-term memory function and your working memory function is that you will be able to optimize the main purpose of your brain, which is to help your body survive, reproduce, and thrive.

The new brain knowledge can help you activate your hidden but genuine potential to be curious and achieve courageous objectives within cultural possibilities.

Both your intelligence and your creativity can be positively influenced when you deliberately use your imagination and reasoning ability and memory systems to remember important events in your life. You have the *brainpower/mental force (willpower)* to seek more detailed explanations about subjects as well as to decide what unnecessary past memories can be forgotten.

It is especially important to forget those ideas ("facts") that you were forced to remember as a child or youth that were erroneous ideas ("fallacies"). You may have learned so-called "facts" when you were a child and did not have the cognitive capacity to properly evaluate the veracity of the ideas that you were forced to memorize. They may have related to stereotypes such as racial prejudices, gender inequalities, or sexual orientation biases.

Since reading is one of many ways of thinking, it is more important than ever in our current age of social media that you seek more profound levels of knowledge about all kinds of subjects. By reading widely and by choosing to read in depth about significant scientific and historical and political subjects, you can strengthen your mental force and also change your self-identity by changing your adaptable long-term memory resources.

The goal of living well and long can be achieved by keeping fresh blood flowing through your arteries and by keeping sparks of electro-chemical ionic signals flowing through your brain and nervous system. The physical structure of your brain and nervous system are now known collectively as your *connectome*.

Your connectome, which consists of your brain and all the motor and sensory neuronal pathways in your body, is now being "mapped" (researched) at the smallest possible nano-microscopic atomic and molecular levels with the new **Block Fluorescent 3D Computerized Microscopes**.

The brain information on this website emphasizes the profound connection between your working memory system brain function and your long-term memory system brain function. These two key brain ideas are #1 and #15 on the **Circle of Consciousness Symbol**©:

CIRCLE OF CONSCIOUSNESS SYMBOL©

You can see that brain ideas #1 and #15 are next to each other on the circle. This is to remind you that they are inseparably connected inside your brain.

What are the secrets of making both your working memory and your long-term memory functions more efficient for achieving good health and longevity?

WORKING MEMORY METAPHOR

"The relationship between *working memory* and *long-term memory* is similar to that of a *librarian* and a *library*. Like a librarian, working memory allows you to search through the 'books' of information stored in the 'library' in order to accomplish a specific task." (Book Source = **Working Memory Advantage**, 2013, p. 160)

"With Alzheimer's disease, both elements are under attack: the 'librarian' struggles to search through the stacks, and the worms are eating through the 'books.' A shrinking working memory has a detrimental effect on your ability to access the 'books,' to search through the 'library' and find and apply what you need." (page 160)

"And when the 'books' deteriorate, it is much harder to read what remains." (page 160)

"However, working memory is such a dynamic and adaptive function that if it remains strong, even though Alzheimer's begins to eat away at your neurons, it may in fact help prevent you from experiencing the cognitive symptoms associated with the disease" for a long time. (page 160)

You can improve your long-term memory by learning the following three memory enhancement skills that are controlled by your prefrontal cortex.

TAKING COMMAND OF YOUR LIFE WITH THREE NEW SKILLS

The following three excellent learning techniques can improve the functioning of your working memory system and its relationship to your long-term memory system.

They are: (1) **Code Breakers**; (2) **Bootstrapping**; and (3) **Chunking**:

(1) The *code breakers technique of planning* can be used for improving your memorization of the 15 brain ideas emphasized on this website, if you develop a step by step plan that can then help you transfer and consolidate new brain information into your long-term memory system.

For example, you can use your creative imagination to match or create associations between each of the 15 memory codes featured on this website with each of the 15 brain ideas, respectively. (page 182)

(2) The *bootstrapping technique of learning* involves the process of combining or binding verbal information (text) with visual information (brain diagrams) by using both your working memory and your long-term memory systems together. This technique can help you consolidate brain information such as the brain names and definitions and memory codes. Eventually, the details about each brain idea can be retained and retrieved at will. (page 183)

(3) The *chunking technique of memorization* involves a method of breaking down complex information, such as the description of your brain's many amazing structures and your mind's many functions, into smaller parts or "**chunks.**" The smaller chunks of alphabetical letters (of the vital brain information) can be organized and committed by your working memory brain function to your long-term memory brain function.

This facilitates the process in which "your working memory 'conductor' can prioritize and manage data more efficiently." Then the "long chunks of information [can be] stored in your long-term memory."

Book Source = **Working Memory Advantage**, 2013, page 183; See also Appendix: Working Memory Quick Hits Manual on pages 280-291.

Note: See in context: Working memory #1, neurons #2, dendrites #3, axons #4, nucleus of a neuron #5, glial cells #6, synapses #7, potentiation #8, connectome #9, plasticity #10, cerebrum #11, prefrontal cortex #12, limbic system #13, and pleasure circuit #14.

RECOMMENDATION: You may print this pdf version and read it and edit it by adding or deleting ideas. Then, you can read your edited version of these ideas according to a *reinforcement schedule*, such as a few hours later and a few days later and then several times in the next week or two. This strategy can help you take advantage of the power of the *spaced-repetition method of memorization*. Such deep introspection can change your adaptive self-identity and increase your self-esteem (positive emotions about yourself).

**Remember always:
You are your adaptable memory!**