

The Brain and the Subconscious Mind

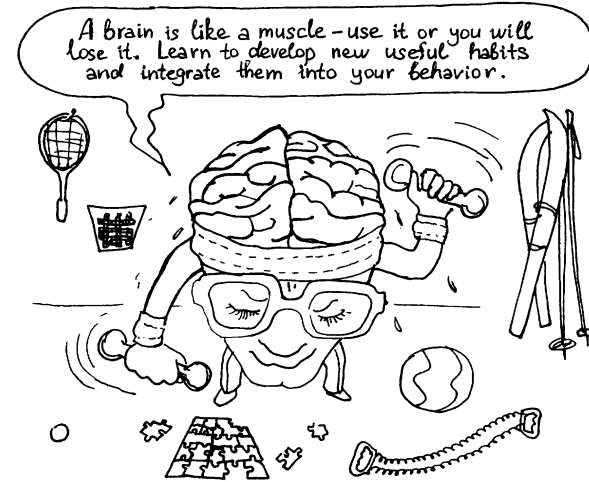
VOCABULARY

subconscious mind – подсознание	recognizing images – распознавание образов
way of thinking – образ мышления	customer – заказчик
intelligence – интеллект	hemisphere [ˈhɛmɪsfɪə] – полушарие
cell – клетка (организма)	spatial [ˈspeɪʃ(ə)l] – пространственный, связанный с ориентацией в пространстве
muscle [ˈmʌsl] – мышцы	simultaneous – одновременный
oxygen [ˈɒksɪdʒ(ə)n] – кислород	sequential [sɪˈkwenʃ(ə)l] – последовательный
consumption – потребление	subsequent [ˈsʌbsɪkwənt] – последующий, более поздний
similarity [ˌsɪmɪˈlærɪti] – сходство	to tend – иметь тенденцию
to perform [pəˈfɔ:m] – выполнять	to perceive [pəˈsi:v] – воспринимать
complicated – сложный	to enhance [ɪnˈhɑ:ns] – усиливать, улучшать
incredible – невероятный	
screwdriver – отвертка	
association – ассоциации	
coin – монета	

Our brain is a wonderful machine. Although the human brain and intelligence has been studied a lot, there is little understanding of how the brain works to produce **intelligence**. A human brain contains about 100 billion **cells** (*about the number of stars in the Milky Way*). Scientists cannot find significant physical differences between brains of highly intelligent and talented people and less intelligent ones.

The brain needs ten times more blood than other organs of the body. The brain can not store glucose for later use but **muscles** and other organs can. Although the adult brain makes up only two percent of the body weight, its energy and **oxygen consumption** is twenty percent of the body's total.

There are some **similarities** between brains and computers. Computers **perform complicated** calculations at **incredible** speeds, but they work in a fixed way and they cannot make memory **associations** and generate creative ideas. For example, if a person needs a **screwdriver** and there isn't one, he will usually think creatively and use a knife or **coin** instead. Computers cannot do this. In fact, it is claimed that when it comes to **recognizing** visual **images**, controlling movements and reactions, a powerful computer cannot compete with even the brain of a fly.



An understanding of the human brain structure is helpful in explaining the behavior of our friends, relatives, co-workers, **customers** etc. Our brains consist of two **hemispheres** – left and right; one of them is usually dominant. In nearly all right-handed and many left-handed people, the left hemisphere is dominant. A person's dominant hemisphere is usually occupied with language and logical operations, while the other hemisphere controls emotions and artistic and **spatial** skills.

The concept of right brain and left brain thinking developed from the research in the late 1960s of an American psychiatrist Roger Sperry. He discovered that the left and right hemispheres of the human brain process information in different ways. One (*the right hemisphere*) is visual and processes information in an intuitive and **simultaneous** way, looking first at the whole picture, then the details. The other (*the left hemisphere*) is verbal and processes information in an analytical and **sequential** way, looking first at the pieces and then putting them together to get the whole picture. Sperry was awarded a Nobel Prize in 1981, although **subsequent** research has shown that this model is slightly simplified. People **tend to perceive** information using their dominant hemisphere first. However, the learning and thinking process is **enhanced** when both hemispheres of the brain are involved.

Although men and women think in different ways, there are no significant differences between the intelligence levels of males and females. Generally, women are more skilled verbally and men do better on visual-**spatial** tasks. Interestingly, the **neuron** which joins the two **halves** of the brain has been found to be larger in women's than in men's brains. This **supports** the theory that women can switch from emotional to practical thinking more quickly than men.

Each of the hemispheres consists of three **layers developed** during different periods of evolution.

The 'deepest' part of the human brain is the brain stem and it is similar to a reptilian brain. It is a **remnant** of our prehistoric past. This part of the brain is primarily focused on **survival**, obtaining food and safety (*keeping you from becoming someone's food*). It **takes over** when you feel **threatened** or **endangered**. It plays an important role when it is necessary to make a quick **decision**.

The second layer is the limbic stem, which is similar to the brain of a **mammal**. It's responsible for bodily functions. This is where our emotions and feelings are generated.

The neo-cortex is the most evolutionary **advanced** part of our brain. It **governs** your ability to speak, think and solve problems. The neo-cortex **affects** your creativity and your **ability** to learn. The neo-cortex makes up about 80 percent of the brain.

In the industrial age, 'reptilian' behavior was honored and needed. Companies **expected assembly line** workers to take orders and work without thinking. Industrial age management performed the functions of the neo-cortex. Management did the thinking and workers did what management told them to do.

The business **environment** is different in the information age. Today, workers must think, make decisions, and use their creativity. Many management experts are **convinced** that reptilian behavior is a **disadvantage** and an **obstacle** in the information age. Yet, it takes time for changes to take place and reptilian behavior still exists.

spatial ['speɪʃ(ə)l] – пространственный	to threaten ['θretn] – угрожать
neuron ['nju(ə)rɒn] – нейрон	to endanger – подвергать опасности
half [hɑ:f] – половина	decision – решение
to support [sə'pɔ:t] – поддерживать	mammal – млекопитающее
layer ['leɪə] – слой	advanced – продвинутый
to develop – развивать	to govern – управлять, руководить
remnant ['remnənt] – пережиток	to affect [ə'fekt] – влиять
survival [sə'vaɪv(ə)l] – выживание	ability – способность
to take over – захватить (власть)	to expect – ожидать

Our brains **up-shift** and **downshift** depending on the situation. Our brains up-shift when we are learning or doing something creative and downshift when we feel threatened.

Most of our mental processes are deeply **rooted** in stereotypes and habits. Our brains are a bit like computers, but they are self-improving computers. Learn to develop new useful habits and integrate them into your behavior.

Our thoughts change chemical reactions in our brain and affect our **moods**. The mind can be at least as powerful as **medicine** when it comes to changing chemical reactions in our brain. Behavioral modification (*altering the way a person behaves*) and cognitive therapy (*altering the attitude and way of thinking*) **alter** the chemistry of the brain. Thoughts can remodel our brain and change our habits and personality. In order to stimulate and induce positive change, new positive ideas should be recorded into the subconscious mind on top of the old information you want replaced.

Our brains are also like muscles – the more we use them, the stronger and more powerful they become. Keep your brain young and active by giving it new challenges. Train and develop your brain by learning new useful skills. Try changing routines as often as you can. For example, focus on expanding your vocabulary, while taking a nice walk, instead of taking an **overcrowded** bus or going by car. You can retrain your brain to operate in English.

So, people can change the way they think and also make their brain stronger. Take care of your health to keep your brain fit. It is true that healthy people usually have a healthy mind. Good health and fitness levels give you **overall** improved energy, which leads to better concentration and productivity.

assembly line – сборочная линия	to depend – зависеть
environment [ɪn'vaɪ(ə)rənmənt] – среда	to root [ru:t] – укореняться
to make a decision – принимать решение	mood [mu:d] – настроение
to convince [kən'vɪns] – убеждать	medicine – лекарства
disadvantage [dɪsəd'vɑ:ntɪdʒ] – недостаток	attitude – отношение
obstacle ['ɒbstəkl] – препятствие	to alter – изменять
to up-shift – переход на более высокую передачу	overcrowded – переполненный (людьми)
to downshift – переход на более низкую передачу	overall – общий