

Left or Right Brain?

By: Bernard Wechsler, February 19, 2007

Imagine this, the public was right long before neuroscientists accepted the concept that Homo sapiens could be considered left-brain or right-brained.

In 1981 Roger W. Sperry of Cal Tech won the Nobel for his twenty years of research on split-brain specialization. Until the 1990s and MRI proof, research scientists did not accept his theory of left and right brains specialization. It was considered an urban legend.

The use of fMRI (functional Magnetic Resonance Imagery) produced conclusive evidence that people are comfortable as either left or right brain dominant.

During our sixteen waking hours of activity both cerebral hemispheres are operating simultaneously, but not with equal input. During sleep our right brain is fully dominant with a small contribution from our dormant left brain.

Sperry said, each hemisphere is a conscious system in its own right, perceiving, thinking, remembering, willing and emoting. They can even be operating in conflict and in ignorance of each other.

The EEG (Electroencephalogram) measures our electrical brainwave rhythms. Left brain dominance occurs in Beta cycles per second (13 to 40 cps). We can see and measure brain dominance with fMRI and EEG.

Right brain EEG occurs during Alpha (8 to 12) cycles per second and Theta 3 to 7 cps. The answer to so what, is how we think and feel, behave, learn and remember, are determined by our brain dominance. We use both left and right brains but one is leading and the other operating in sync.

Left Brain Dominant Processing of Information

1. Language (verbal) specialist. Speech, listening, reading and writing.
2. Logic, order and linear minded; sequential.
3. Likes to split whole ideas into its essential elements. Called Reductionist.
4. Chases ideas, objects and theories for closure.
5. Specializes in math and science; part to whole for conclusions.
6. Excited by problems and challenges to seek solutions.
7. Prides themselves for being analytical and exacting.
8. Unaware of the contents of night dreaming and daydreaming.
9. Great in emergencies. Strategies are step by step.
10. Is externally driven, narrow focused and objective; respects authority.
11. Our left hemisphere is a serial processor, one program must be completed before another commences.

Right Brain Processing of Information

1. Thinking is predominantly in mental visualizations (mental movies).
2. Pattern Recognition; fills in the missing elements with spatial skills.
3. Intuitive and creative, seeks great understanding. Spiritual.
4. Parallel Processing: multiprocessing ideas simultaneously.

5. Holistic: organizes parts in whole.
6. Emotions follow imagery; amygdala and hippocampus. Learning and long term memory contributions.
7. Subjective, internal and wide (peripheral rod vision). Speed reading.
8. Empathetic, emotional and social intelligence.
9. Uses trial and error, process of elimination.
10. Active during meditation, hypnagogic and hypnopompic moments.
11. Questions authority, willing to disrupt our comfort zone and the status quo.

Social Consequences

- a) Left brainers are morning people; right brainers come to life after 5pm.
- b) Left: liberal parenting strategies; laissez faire approach to life; Right: strict with kids; comfortable with possibilities.
- c) Left: in personal relationships dominants significant others; Right: desires interactivity with family and associates, needs feedback.
- d) Left: neither romantic, nostalgic nor sentimental; Right: sends gifts, stays in touch and is emotional.
- e) Left: independent, closed and impersonal; Right: open with others, offers advice and desires feedback.
- f) Left: all business, no sense of playfulness. Right: shows humanity and permits the inner child to play at work.
- g) Left: not talkative, remains impersonal to her/his team. Right: enjoys give and take of brainstorming with creativity.
- h) Left: giving praise is like pulling teeth and they do not value the compliments of others; Right: looks for examples of effort and behavior to praise; they enjoy compliments, awards and praise.

Endwords

Left and right brained people can be separated into (left brain) people who are comfortable living in the present reality, verses (right brain) folks focusing more on the past and future.

Left brain: are symbol processing folks including words, numbers and scientific formulas. Language is their first game, and memorizing words and formulas produce endorphins and dopamine neurotransmitters of pleasure.

Right brain: are concrete processing folks who want a sensory reaction (see, hear and touch). Putting it in context and discovering how it works is fun for right brainers. They prefer concreteness in their lives.

If you are left brain dominant you are in your comfort zone (status quo) when you know the rules of the game (occupation and relationship). Right brain dominant people make up the rules as they figure it out their strategy.

We use both our left and right hemispheres; of that there is no question. The dominance in specific situations and the ability to switch from one to the other is the primary challenge. Impulsiveness is a right brain attribute that should be balanced (in sync) with our left brain sense of order.

There is no winner because Homo sapiens have two operating systems in our cerebral cortex. The question is appropriateness for the circumstances.

Generally, it would be better to enhance the use of our right brain (senses, emotions and brain stem) more than we do.

Western society tends to overuse our left (Beta) brain, leading to chronic stress and less intuition and creativity. Abilities alone do not prevail; effort (persistence and determination) are right brain skills required to be remarkable not merely competent.