# STRENGTH AND WEAKNESS OF RIGHT AND LEFT BRAIN

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The brain is a multifaceted and meticulous organ. It is made up of more than 100 billion 3 neurons or brain cells but only weighs pounds.<sup>1</sup>The vertebrate cerebrum (brain) is formed by two cerebral hemispheres that are divided by a groove, the longitudinal fissure. The brain can hence be described as being divided into left and right cerebral hemispheres. Each of these hemispheres has an outer layer of grey matter, the cerebral cortex, that is maintained by an inner layer of white matter. In placental mammals, the hemispheres are connected by the corpus callosum, a very large bundle of nerve fibres. Smaller commissures, including the anterior commissure, the posterior commissure and the fornix, also join the hemispheres and these are also present in other vertebrates. These commissures transfer data between the two hemispheres to coordinate localized functions.<sup>2</sup>

Broad overview are often made in popular psychology about certain functions (e.g. logic, creativity) being lateralized, that is, located in the right or left side of the

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brain. These claims are often inaccurate, as most brain functions are actually disseminated across both hemispheres. Most scientific suggestion for asymmetry relates to low-level perceptual functions rather than the higher-level functions popularly discussed (e.g. subconscious processing of grammar, not "logical thinking" in general). In addition to this lateralization of some functions, the low-level representations also tend to characterize the contralateral side of the body.<sup>3</sup>

Perceptual information is managed in both hemispheres, but is laterally separated: information from individually side of the body is sent to the opposite hemisphere. Similarly, motor control signals sent out to the body also come from the hemisphere on the opposite side. Therefore, hand preference (which hand someone prefers to use) is also associated to hemisphere lateralization. In some features, the hemispheres are asymmetrical; the right side is slightly bigger. There are advanced levels of the neurotransmitter norepinephrine on the right and higher levels of dopamine on the left. There is more white matter (longer axons) on the right and more grey matter (cell bodies) on the left.<sup>4</sup>

Linear reasoning functions of language for example grammar and word production are frequently lateralized to the left hemisphere of the brain. In contrast, holistic reasoning purposes of language such as intonation and emphasis are frequently lateralized to the right hemisphere of the brain. Other integrative functions such as intuitive or heuristic arithmetic, binaural sound localization, etc. seem to be additionally bilaterally controlled.<sup>5</sup>

Whenbreak down the characteristics of a right-brain dominant person, like someone very visual, a slight spontaneous, and frequentlylabelled as emotional. They may struggle with memorization, as well as paying attention to detail. We most likely label those who are right-brain dominant as "creative". Their learning styles often differ from a left-brain dominant person, who traditionally tends to do very well in western school systems. A right-brain dominant person on the other hand, can find it difficult to settle into routines. However, working in group settings are ideal for them, this helps them nurture the creative nature that comes with being right-brain dominant.<sup>6</sup>

# Here're 7 right brain characteristics:

If the person is right brain dominance than, person:

- Prefer Drawing to Writing
- Prefer Open-Ended Questions to Multiple Choice
- Tend To Be Disorganized
- Have Difficulty Focusing for Long Periods of Time
- Have Less Than Average Memorization Skills
- Are a Holistic Thinker
- Can Be Spontaneous and Intuitive

Left-brained people are said to be more:

- analytical
- logical
- detail- and fact-oriented
- numerical
- likely to think in words<sup>7</sup>

# **Cognitive style Quiz**

Instruction:

Choose the one sentence that is more true. Do not leave any blanks.

1. A) Its fun to take risks.

B) I have fun without taking risks.

2. A) I look for new ways to do old jobs.

B) When one way works well, I don't change it.

3. A) I begin many jobs that I never finish.

B) I finish a job before starting a new one.

4. A) I'm not very imaginative in my work.

B) I use my imagination in everything I do.

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5. A) I can analyze what is going to happen next.

B) I can sense what is going to happen next.

- 6. A) I try to find the one best way to solve a problem.B) I try to find different answers to problems.
- 7. A) My thinking is like pictures going through my head.B) My thinking is like words going through my head.
- 8. A) I agree with new ideas before other people do.

B) I question new ideas more than other people do.

- 9. A) Other people don't understand how I organize things.B) Other people think I organize well.
  - 10. A) I have good self- discipline.
    - B) I usually act on my feelings.
  - 11. A) I plan time for doing my work.
    - B) I don't think about time when I work.
  - 12. A) With a hard decision, I choose what I know is right.B) With hard decision, I choose what I feel is right.
  - 13. A) I do easy things first and important things later.B) I do important things first and easy things later.
  - 14. A) Sometimes in a new situation, I have to many ideas.B) Sometimes in new situation, I don't have any ideas.
  - 15. A) I have to have a lot of change and variety in my life.B) I have to have an orderly and well-planned life.
  - 16. A) I know I'm right, because I have good reason.B) I know I'm right, even without good reason.
  - 17. A) I spread my work evenly over the time I have.
    - B) I prefer to do work at the last minute.
  - 18. A) I have to make my own plans.
    - B) I can follow anyone's plans.
  - 19. A) I keep everything a particular place,
    - B) Where I keep things depends on what I'm doing.
  - 20. A) I am very flexible and unpredictable person.

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- B) I am consistent and stable person.
- 21. A) With a new task, I want to find my own way of doing it.
  - B) With a new task, I want to be told the best way to it.

# To Score:

Give yourself one point for each time you answered "A" for questions: 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, 20, 21. Give yourself one point for each time you answered "B" for questions: 4, 5, 6,

10, 11, 12, 16, 17, 18.

# Add all points. Totals imply:

0-4: strong left brain

5-8: moderate left brain

9-13: middle brain

14-16: moderate right brain

17-21: strong right brain

# Conclusion

Human brain is made up with lots of tissues and every part have different function. Hemisphere also most important part of brain and divides into two separated portions: left hemisphere and right hemisphere. Both having different function of body. This article suggest that every persons have different qualities based on their dominancy of brain. This article made a checklist which help to improve their negative point by using this checklist.

# Reference

- https://www.medicalnewstoday.com/articles/321037#left-brain-vs-right-brainbelief
- 2. https://en.wikipedia.org/wiki/Cerebral\_hemisphere#Function
- "Neuromyth6" http://www.oecd.org/document/63/0,3746,en\_2649\_35845581
  \_34555007\_1\_1\_1\_1,00.html Retrieved October 15, 2011.
- 4. R. Carter, Mapping the Mind, Phoenix, London, 2004, Originally Weidenfeld and Nicolson, 1998.

#### Juni Khyat (UGC Care Group I Listed Journal)

- 5. Dehaene S, Spelke E, Pinel P, Stanescu R, Tsivkin S (1999). "Sources of mathematical thinking: behavioral and brain-imaging evidence". Science. 284 (5416): 970–4. doi:10.1126/science.284.5416.970. PMID 10320379.
- https://www.google.com/search?q=qualities+of+right+brain+dominant&rlz=1 C1ZKTG\_enIN904IN908&oq=qualities+of+right+&aqs=chrome.0.0l2j69i57j 0l5.19173j0j8&sourceid=chrome&ie=UTF-8
- Petitto, L. A., Zatorre, R. J., Gauna, K., Nikelski, E. J., Dostie, D., & Evans, A. C. (2000, December 5). Speech-like cerebral activity in profoundly deaf people processing signed languages: Implications for the neural basis of human language. Proceedings of the National Academy of Sciences, 97(25), 13961–13966