



His Brain, Her Brain: Vive la Difference!

Linda Sasser, Ph.D. linda@brainandmemoryhealth.com

Male and Female Brains

“The sexes are different because their brains are different. The brain... is differently constructed in men and women; it processes information in a different way, which results in different perceptions, priorities and behavior.” - Dr. Anne Moir

*Scientists have identified at least **100 differences** between male and female brains: developmental, structural, chemical, and processing.*

The Socialization Explanation

For most of the 20th century, gender differences in behaviors and choices were explained by **social conditioning**. Sex differences begin with the X and Y sex chromosomes a person is born with, but whether the **brain and nervous system** are wired as female or male depends heavily on the early influence of estrogen (female hormone) and testosterone (male hormone). The brain’s sexual identity is first established when those hormones are briefly released before and shortly after birth, and may influence a child’s preference for dolls or trucks.

Simon Baron-Cohen’s Empathising-Systemising (E-S) Theory

Empathising is the drive to identify another person's emotions and thoughts, and to respond to these with an appropriate emotion. The empathiser intuitively figures out how people are feeling, and how to treat people with care and sensitivity.

Systemising is the drive to analyze and explore a system, to extract underlying rules that govern the behavior of a system, and the drive to construct systems. The systemiser intuitively figures out how things work, or the underlying rules controlling a system.

“**Reading the Mind in the Eyes**” test measures the ‘cognitive’ component of empathy, the ability to recognize or infer another’s state of mind. In hundreds of studies it shows reliable sex differences in typical individuals, with women on average scoring higher than men.

Brain Chemistry

Male brains tend to have more **testosterone** (influencing impulsiveness, aggressiveness, competitiveness, and spatial ability), while female brains tend to have more **oxytocin** (stimulating bonding and cooperation) and **serotonin** (promoting calmness).

Sensory Differences

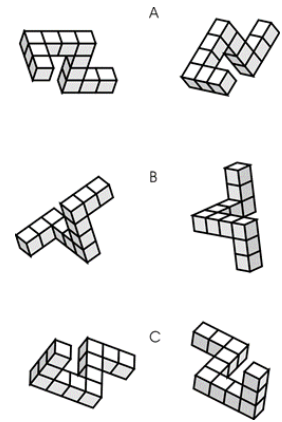
Females have a better sense of **taste and smell**, and are more easily able to hear higher pitched sounds. Females can also **see colors better** than males, and have **wider peripheral vision**.

Women are Like Spaghetti

The **corpus callosum** (bundle of nerve fibers connecting left and right hemispheres) is larger in females, and results in faster transfer of information between hemispheres. Female brains **process language** in both hemispheres, often resulting in females being more **verbal**.

Men are Like Waffles

The male brain experiences approximately 15% less blood flow, so is more compartmentalized and better suited to a singular task focus. It has more cortical areas devoted to **spatial processing**, so is better suited to symbols, pictures, maps. **Mental rotation** (see figures to right) is often easier for males than females. The task is to determine if each pair of objects is identical.



Books

- Baron-Cohen, S. (2003). *The Essential Difference: Male and Female Brains and the Truth about Autism*. NY: Basic Books.
- Brizendine, L. (2006). *The Female Brain*. NY: Broadway Books.
- Brizendine, L. (2010). *The Male Brain*. NY: Broadway Books.
- Farrel, B, & Farrel, P. (2001). *Men Are Like Waffles Women Are Like Spaghetti*. Oregon: Harvest House Publishers.
- Gungor, M. (2009). *Mark Gungor: Laugh Your Way to a Better Marriage – DVD*. See The Tale of Two Brains.
- Gurian, M. (2003). *What Could He Be Thinking?* NY: St. Martin's Griffin.
- Larrimore, W., & B. Larrimore, (2008). *His Brain, Her Brain: How Divinely Designed Differences Can Strengthen Your Marriage*. Grand Rapids, MI: Zondervan.
- Legato, M. J. (2005). *Why Men Never Remember and Women Never Forget*. PA: Rodale.
- Moir, A., & Jessel, D. (1991). *Brain Sex: The Real Difference Between Men and Women*. NY: Dell.
- Pease, B., & Pease, A. (2001). *Why Men Don't Listen and Women Can't Read Maps*. NY: Broadway Books.
- Sax, L. (2005). *Why Gender Matters*. NY: Doubleday.
- Tannen, D. (1991). *You Just Don't Understand: Women and Men in Conversation*. NY: Ballantine.

About the Speaker

Linda Sasser, who holds a Ph.D. in Educational Psychology, has more than three decades of experience as a professional speaker, university professor, and workshop facilitator. Her diverse background includes developing and delivering keynotes, training, and continuing education for associations, businesses and professionals. She authored *BE! Brain Enrichment*, a course curriculum to help people learn about brain health and improve memory and other cognitive skills. Through her business, **Brain and Memory Health**, she offers individual and corporate solutions for brain wellness and emotional intelligence, and exercises her passion for motivating people to fully utilize their brain's potential. Her website is www.brainandmemoryhealth.com