Frequently Asked Questions: Left/Right Brain

If I have a preference for the quadrants on the left side of the Whole Brain® model, does that mean that I don't use the right side of my brain?

- No, it does not! The popular but vastly oversimplified notion of left brain-right brain, which could even imply that we use only half of our brains, is not an accurate depiction of how the brain actually works.
- The reality of the physical brain is that the different hemispheres, while specialized, are very much interconnected, and most often work in concert with one another. We are "wired" to be whole.
- The brain is physically constructed so that specialized areas of processing can collaborate with other areas of specialization even though we have developed preferences for certain mental activities over others. The Whole Brain® Thinking concept uses this structure as the basis of its metaphoric description of how we think.
- The four-quadrant Whole Brain® model allows us to differentiate and accurately describe the array of preferences we each have for each quadrant. However, the fundamental premise of the Whole Brain® model is that the brain operates as an interconnected whole – thus the name "Whole Brain."
- Therefore, expressions like "he is right brained" or "she's only using her left brain" are not helpful because they are misleading and exaggerate the degree to which the brain's hemispheres operate independently.
- Instead, we recommend saying "I prefer to take a rational approach" or "he prefers relational and experimental thinking." Your HBDI® results are about modes of thinking, ways of grasping or perceiving the world, of reacting to it through specific behaviors — not about the specific neural circuitry that underpin those.

Frequently Asked Questions: Creativity

A right-brained person must be more creative, right?

- Wrong! Besides the counter-productive use of the term "right-brained," creativity can comprise of many different types of thinking — in some cases, that thinking might be artistic or visual, in other cases more related to language or even mathematics.
- Someone might demonstrate creativity in the particular area that is most closely linked to their thinking preferences, but not all forms of creativity
- Furthermore, just because someone may have a strong preference for a particular quadrant overall does not mean that they have a preference for each specific attribute within that quadrant.

- To understand the true nature of a person's thinking, always double-check in the Data Summary sheet (or the *Clusters* section in the HBDI® App) to see whether a specific attribute is truly preferred, rather than assuming it is.
    - For example, a person may have a strong preference in the **A quadrant** and yet still be weak in math, simply because they lacked the opportunity to pursue their studies in this domain. Indeed, it is highly likely they would succeed in it if they decided to truly put the time and effort in, precisely because these kinds of studies suit their thinking preferences.

Frequently Asked Questions: Neuroplasticity

Can my HBDI® profile change?

- Yes! The "flexibly stable" nature of the HBDI® profile reflects the brain's neuroplasticity, a term which describes the ability of the brain to evolve and adapt to changing conditions over time.
- Longitudinal studies of HBDI® participants indicate that change can and does take place if there is a reason for it. Change typically takes place over a long period of time and is driven by an individual's desire and willingness to change, a change in their life's circumstances, or as result of a significant emotional event.
- Profiles do not change casually; rather, a substantial change in the person's life is required to cause a change. Profiles often change when there is an event, or series of events, that has value-shifting impact. Examples include a major change in the family (e.g., birth of a child, death, divorce), a major career change, going back to school, engaging in a completely different field of study, or maybe even going o to war. The impacts of these types of events in changing the brain are consistent with findings from developmental cognitive neuroscience research.
- Changes to the profile in a +/- 5% range can easily occur, but usually the shape of the profile remains the same. However, if nothing has happened to the individual, and they continue to do the same things in the same way, then the profile will remain stable

Frequently Asked Questions: Neural Systems

Which neural systems are most closely tied to the HBDI® and Whole Brain® model?

- Remember, the HBDI® and Whole Brain® model are metaphors for the brain, and do not represent any individual anatomical feature. Research with Stanford University has nevertheless found that many cognitive systems across the brain are most closely associated with the areas measured in each scale (quadrant) of the Whole Brain® model:

- **A quadrant:** “Left frontotemporal system …including left inferior frontal cortex (BA 47), left mid/superior temporal cortex (BA 21/22), and left temporal pole (BA 21/38) (Barbey A. K., & Barsalou L. W. “Reasoning and problem solving: models”, 2009)
- **B quadrant:** “Different populations of neurons encode delays between temporal-sequential sensory events, and these populations feed into opponent processing neurons that employ synaptic scaling.” (Eagleman et al, “A neural model for temporal order judgments and their active recalibration,” Journal of Vision 9, no. 8, 2009)
- **C quadrant:** “Stronger functional connectivity among social-emotional regions (ventral anterior insula, orbitofrontal cortex, amygdala, perigenual anterior cingulate)” (Cox et al., “The balance between feeling and knowing: affective and cognitive empathy are reflected in the brain’s intrinsic functional dynamics,” Social Cognitive and Affective Neuroscience, 2011)
- **D quadrant:** “Correlates positively with activation in the amygdala and orbitofrontal cortex, and negatively with a striatal system.” (Hsu et al., “Neural Systems Responding to Degrees of Uncertainty in Human Decision-Making,” Science 310, no. 5754, December 9, 2005)