



BP – Brain/Mind Capacity

There is a serious misperception that because so many daily activities involve both left and right hemisphere working together - activating a network-wide response - it means that 100% of the brain is used.

However, that is misleading. It's very important to note:

- 1) **Activation happens to varying degrees, greater and lesser, not just on or off.**
- 2) **Routine mundane activities are not the appropriate test for hemispheric predominance.**
- 3) **[L and R hemispheres](#) are connected and designed to work together in a complementary manner; that means they have different, complementary, specialized functions.**
- 4) **Activating the “terrain” of the brain is not the same as maximizing “capacity”.**

L and R work best when in harmony together, that's a fact. Specialization of hemispheric function is also a fact. Just like a sports team is a unit but also has players with individual skills playing certain positions, L and R are a powerful team with different, complementary strengths.

Different people have relative strengths vis a vis just about every human capacity and physical, social attribute, why wouldn't that include L and R hemispheres? Where else is there some human capacity and disposition equally distributed without some aspects more dominant? Why would the hemispheres be any different?

Yes there is communication and integrated operations for many routine activities, but those in no way preclude dominance of one or the other in not-routine activities. In fact the one study cited in an article to disprove L or R predominance, measures the brain in “resting state” while subjects are lying in an MRI tube. (You have to actually read the research report to be told that important fact.)

“In one study by researchers at the University of Utah, more 1,000 participants had their brains analyzed in order to determine if they preferred using one side over the other. The study revealed that while activity was sometimes higher in certain important regions, both sides of the brain were essentially equal in their activity on average.” Yet based in this very artificial and limited relevance study, lead author Dr. Jeff Anderson concludes *“...people don't tend to have a stronger left- or right-sided brain network.”*



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Despite Dr Anderson's conclusion, lying in a test tube is not an environment remotely equivalent to testing people in real-life situations, and particularly kids in a classroom, where teaching methods and content might engage ("activate") L and/or R to greater or lesser degrees.

Yale Scientific April 2012 (Kevin Boehm): *"When children were shown images and asked to tell a story about them, function was lateralized strongly in the left hemisphere for over 90 percent of participating children. However, when asked to listen to an emotional story, both hemispheres of the brain were activated to a similar degree as planning and articulation require more processing involving more regions on both sides of the brain. The stories the children listened to, unlike the pictures, were emotional, which may indicate that the observed involvement of the right hemisphere is linked to emotional regulation."*

"...function lateralized strongly in left" UNTIL "when asked to listen to emotional story both hemispheres were activated to similar degree"

The research was in a classroom and showed that teaching w/o engaging R brain LATERALIZES learning to the L hemisphere. Therefore, if our teaching methodology does not include R hem and emotional engagement, it will be predominantly L hem.

The University of Arkansas Enhanced Learning Center Eric Jensen Brain-based Learning 2000: *"Researchers discovered that musicians process music to a greater degree in the left hemisphere, while non-musicians process it more in the right hemisphere. This paradox points to the complexity of our brain functions. In this case, since musicians tend to analyze music more than the novice, their left brain is engaged to a greater degree."*

"Greater degree" means there are degrees to which an area is activated... it is not just an on-off setting. If we already, every day, use all of our brain to a set, uniform, capacity, why does certain brain training change brain waves and enlarge certain areas of activation? And there is lots of evidence for this. Mindfulness training has clearly demonstrated this. Biofeedback before that, and ancient yoga practices are another source of challenge to conventional science views on brain activation and developing further brain capacities.

What is taught and how we teach can engage and develop both hemispheres or can ignore one. To overlook ½ your brain is a big waste of prime real estate. And subsequent conventional training/conditioning only makes matters worse.

What does a Harvard [neuroanatomist](#) who actually suffered a stroke that shut down her L hemisphere for 8 years, say? [Jill Bolte Taylor](#):

"Our academic system is designed to reward extreme left-hemisphere gifts and behavior. If you look at our level of aggression in society, it tells us what is going on in the left hemisphere. It gets stressed out; it is on a timetable, so it's always urgent and always late and behind, and this results in a snappish attitude and behavior. To the left hemisphere, everything is either right or wrong; It is all about hierarchy, so I know where I sit on that ladder—what's above me and what's below me—and I



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have to behave accordingly to fit into my little box. Okay, that's one way of being. But how happy are these people?"

The fact alone that the right hem is more tied to the limbic system is an overt indication that there is NOT symmetry and that there must be functional differences between the two. And YES they work best together.

A strong connection is important for brain capacity and can be developed to greater or lesser degrees. Einstein had a very strong one. Fits with his highly developed intuitive mind...which strengthened his analytical mathematical capacities.

We are using less of our brain's capacity if we are not fully developing both hemispheres and fully engaging the communication between them. Clearly there are degrees of communication and ways to strengthen connection.

"The intuitive mind [left hemisphere] is a sacred gift & the rational mind [right hemisphere] is faithful servant. We have created a society that honors the servant and has forgotten the gift." Einstein

We do not develop intuition in our children (or adults). We focus on rational modes and math, science, verbal skills. Ideally the two modes are each robust and work together with high capacity communication.

A Journal of Neurology :

The corpus callosum of Albert Einstein's brain: another clue to his high intelligence?

Weiwei Men , Dean Falk , Tao Sun , Weibo Chen , Jianqi Li , Dazhi Yin , Lili Zang , Mingxia Fan
DOI: <http://dx.doi.org/10.1093/brain/awt252> First published online: 24 September 2013

"These findings show that the connectivity between the two hemispheres was generally enhanced in Einstein compared with controls. The results of our study suggest that Einstein's intellectual gifts were not only related to specializations of cortical folding and cytoarchitecture in certain brain regions, but also involved coordinated communication between the cerebral hemispheres."

BALANCE. INTEGRATION. COMPLEMENTARITY. A healthy whole brain needs both halves – and the mammalian/emotional brain (limbic system) and frontal lobe – all functioning well, individually and together. Currently we are not adequately developing the separate and connecting capacities of the brain.

We believe in the power of the brain operating as a healthy whole. That's why we want people to be aware of the role of R brain specialties or functions, and how education and society fail to honor, appropriately develop and integrate that domain – as well as the frontal lobe and emotional brain - at great cost.



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For further information on the [hemispheres](#) and current inadequate development of R hemisphere capacities

For further information on the [frontal lobe](#) and current inadequate development of FL capacities

For further information on [the mammalian/animal/emotional brain \(limbic system\)](#) and current inadequate development of its capacities.