BP - Hemispheres and Education

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Regarding right hemisphere and education:

July 12, 2011 by **Martha Burns, Ph.D, The Science of Learning**: *"...right hemisphere preferential in processing form, structure, and perhaps, direct links to emotion, and for pattern analysis, and comes from developmental neuroscience which has reported research that supports the contention that for most cognitive skills the right hemisphere matures before the left.[ix]."..."the right hemisphere is specialised in processing complex visual and spatial conditions...the left hemisphere handles complex, rapidly changing stimuli, in which discerning the specific sequential order is critical to perception."*

ROTENBERG, VADIM S.; WEINBERG, IGOR: *"The (right hemisphere) process, therefore, is one of integration and not of inference. On the contrary, left-hemisphere mechanisms bring about the distinguishing and structuring of some pragmatic monosematic results extracted from a polysemantic mosaic...Right-hemisphere predictions may be kaleidoscopic in nature..." : Many versions of the future are simultaneously presented, with their probabilities being very close to each other. As a result, the occurrence of an event that is unlikely from the perspective of past experience has the same weight as a product of reasoning."*

I conclude that means right hemisphere is specialized for "big picture" and many-possibilities/imaginative thinking. Why would the right develop before the left if they are "essentially the same"?

Left: "handles complex, rapidly changing stimuli...specific sequential order"..."bring[s] about the distinguishing and structuring of some pragmatic monosematic results extracted from a polysemantic mosaic"..."specific sequential order"..."extracting monosemantic results"..."inference"..."product of reasoning"...would that be like linear, logical, analytical thinking?

DirkVan Damme, in a debunking effort, states:

"There is no scientific evidence that supports a correlation between creativity and the activity of the right hemisphere, let alone evidence for a correlation between the degree of creativity and the use of the right hemisphere. If one considers the right hemispheric creative and emotional thinking style, there is no scientific evidence that supports a correlation between creativity and the activity of the right hemisphere, let alone evidence for a correlation between the degree of creativity and the use of the right hemisphere."

If there wasn't then, there is now:

Brain 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
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*"Although Einstein's brain weight is 10% less than the mean brain weight of the young controls, six of Einstein's corpus callosum measurements are significantly greater than those of the young controls The corpus callosum is the largest bundle of white matter neural fibres in the brain that connects the interhemispheric cortices, and it may be involved in any neuroanatomical substrate of hemisphere specialization (**Witelson, 1989**).*

We found that Einstein's corpus callosum was thicker in the vast majority of subregions than their corresponding parts in the corpus callosum of elderly controls, and that Einstein's corpus callosum was thicker in the rostrum, genu, midbody, isthmus, and (especially) the splenium compared with younger controls. *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."***

Einstein said, "*The intuitive mind is a sacred gift & the rational mind is faithful servant. We have created a society that honors the servant and has forgotten the gift."*

Can someone look at all the signs of dysfunction and breakdown and think modern society educates for full capacity brain function?

Violence, USA Monthly Review May '13 -

Henry Giroux - noted scholar, educational theorist and public intellectual: *"C. Wright Mills was right in arguing that it is impossible to separate the violence of an authoritarian social order from the cultural apparatuses that nourish it. As Mills put it, the major cultural apparatuses not only "guide experience, they also expropriate the very chance to have an experience rightly called 'our own.' This narrowing of experience shorn of public values locks people into private interests and the hyper-individualized orbits in which they live. Unfortunately, major cultural apparatuses like public and higher education, which have been historically responsible for educating the public, are becoming little more than market-driven and militarized knowledge factories."*

How does one claim on the one hand that all the brain is used every day so to suggest we are using only a fraction of capacity is patently false, while on the other hand state that for many people their brains are not actively producing enough of the chemicals needed to function effectively? Wouldn't that mean that mean the brain is not functioning to capacity?

We do not educate for the compassion, intuition, big picture, transcendent and non-linear thinking, for which the right hemisphere is specialized. We are anxious, alienated, addictive and depressed. Who can logically and evidentially support the claim that we are operating at anything near **full brain capacity**? Remember, all areas may be activated in the course of everyday activities, but that in no way is evidence they are activated at or near full capacity.

John Dewey, then chair of the Department of Philosophy of the University of Chicago, opened an experimental school to test his theory that children learn by doing rather than through

lectures, and that schools should convey information as part of an integrated whole rather than by dividing it into separate subjects… From *The Metaphysical Club* by **Louis Menand**. In 1896:

"[Dewey] conceived of [his school] as a philosophy laboratory. Dewey wasn't conducting curricular experiments or collecting data on mental development. He was trying out a theory. It was a theory, as he said, of 'the unity of knowledge.'...

"By 'unity of knowledge' Dewey did not mean that all knowledge is one. He meant that knowledge is inseparably united with doing. Education at the Dewey School was based on the idea that knowledge is a by-product of activity: people do things in the world, and the doing results in learning something that, if deemed useful, gets carried along into the next activity. In the traditional method of education, in which the things considered worth knowing are handed down from teacher to pupil as disembodied information, knowledge is cut off from the activity in which it has its meaning, and becomes a false abstraction. One of the consequences (besides boredom) is that an invidious distinction between knowing and doing -- a distinction Dewey thought socially pernicious as well as philosophically erroneous -- gets reinforced."

Education needs to change from what it was on the industrial and information ages. We need the age of relationships and the age of big picture/new dimensions (than just 3+time) thinking. That's the quantum paradigm and education needs to get into it. It's time to expand past the paradigm of probabilities into the paradigm of possibilities. We can help.