

Koziol on NVLD, from Novelty to Familiarity

**From:** International Mail List for Pediatric Neuropsychology [mailto:PED-NPSY@LISTS.UMN.EDU] **On Behalf Of** Leonard Koziol

**Sent:** Saturday, September 19, 2009 10:52

**To:** PED-NPSY@LISTS.UMN.EDU

**Subject:** Re: [PED-NPSY] Need Help with Interesting Case

Jane,

I'm not trying to convince anyone of anything. But..., I do not believe in the diagnosis of NVLD 'Period'. To me, that diagnosis makes the assumption that a brain organizes information on the basis of a verbal-non-verbal dichotomy. According to "theory," supported by scientific data, nothing could be further from the truth.

**The brain organizes information on the basis of a "phylogenetically old" novelty versus familiarity principle.** This can be demonstrated in all vertebrate species, dating back at least 500 million years, and verbal-nonverbal has nothing to do with it. **A brain takes that which is novel and tries to makes it familiar** because that principle has a decisive advantage for adaptation, and in fact, the principle is of such significant value that nature has been organizing brains in that way by lateralizing hemispheric specialization for at least 500 million years! This can be inferred from reviewing numerous experimental studies across different classes of vertebrate species. This organizing principle did not change when hominids started to speak. Verbal/language functioning is a special instance of the familiarity principle, while "nonverbal" is really a special instance of novel problem-solving.

Problem-solving is the ability to determine the stimulus-based characteristics of the unfamiliar problem situation and then to apply that information to solve the problem, so that it is now familiar. I have written at length about this in prior posts on this list serve. Please check the archives. I will attach one paper of significance from an evolutionary point of view, demonstrating that the novelty-familiarity principle is biologically consistent across all vertebrate species, as is this type of hemispheric specialization, including within "the monkey that talks," and I'd urge you to read the citation I'm listing below. This topic is also reviewed in Chapter 6 of *Subcortical Structures and Cognition*, Springer, 2009. I am sure you will enjoy the attachment - very interesting and thought provoking.

Podell, K., Lovell, M., & Goldberg, E. (2001). Lateralization of frontal lobe functions. In S.Salloway, P. Malloy, & J. Duffy (Eds.). *The Frontal Lobes and Neuropsychiatric Illness* (pp. 83-100). Washington, D.C.: American Psychiatric.

LK

[www.subcorticalstructures.com](http://www.subcorticalstructures.com)

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