

2. Reading faces and reading letters

Revolutionary research has revealed that learning how to read creates a specific circuitry for processing written material, comprising the left fusiform gyrus (“visual word form area”, VWFA, Cohen et al., Brain, 2000). It also impacts on the speech system, creating strong functional links with both feed-forward and feedback connections between phonology and orthography. So literacy has an impact on the speech system.

The feedback effects from literacy are not limited to language but also affect non-linguistic visual processes (e.g., Kolinsky et al., 2011). Most crucially, Dehaene et al., (2010), showed that, at the VWFA site, learning to read competes with the cortical representation of non-linguistic visual objects, especially faces. While the left VWFA becomes increasingly responsive to letter strings as individuals acquire reading, it becomes decreasingly responsive to faces, which become more right lateralized in literates compared to illiterates. Contrastingly, the contralateral area specifies face reading: the face form Area (FFA).

This class will discuss these cognitions that are at the heart of literacy problem that Brazil and other nations are facing nowadays.

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