READING : ITS PHYSIOLOGY AND IMPACT ON EDUCATION

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1. Language-related cognitions

Language is a most complex function that encompasses numerous subprocesses or language-related cognitions, including the recognition and articulation of speech sounds, lip-reading, the comprehension and production of words and sentences, the use of language in pragmatically appropriate ways and even attention and memory processes. The aim of this class is to present data on the neural basis of language and on some of the brain processes and subprocesses involved in language. Classic neurolinguistic theories, developed over a hundred years ago, relied on studies of brain-injured patients to suggest that certain brain areas played specific roles in the process of language. Currently, investigations stemming from non-invasive techniques, specially electroencephalography (EEG), computed tomography (CT), functional magnetic resonance imaging (fMRI), positron emission tomography (PET) and magnetoencephalography (MEG), allow us to sneak into the healthy brain on-line processing as well, offering us new data on what some brain areas might actually do and, most importantly, how they compute tasks that contribute to a brain network that underlie language processing.

References:

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