Attentional deficits in Alzheimer's disease: a cognitive neuroscience approach (pp. 337-359)

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Even though the majority of researchers agree that memory deterioration is a fundamental feature of the Alzheimer disease, recent research has revealed that attention deficits seem to be crucial for understanding cognitive dysfunction in these patients. In the present article, we use a neuro-cognitive approach of visual attention that conceives of attention as a set of networks that performs very specific computations. These networks are thought to be located in different areas of the brain. The anterior network is located in several portions of the frontal lobe and seems to be involved in executive functioning. The posterior network is located in posterior areas of the cortex and other midbrain areas, and seems to be involved when attention is shifted from one location to another when searching for relevant information. Although Alzheimer patients usually fail in cognitive tasks that depend on executive attention, some of the operations involved in the orientation of visual attention seem to be preserved. Thus, this neuro-cognitive approach has revealed as a useful framework to study the attentional deficits that are associated with Alzheimer's disease.