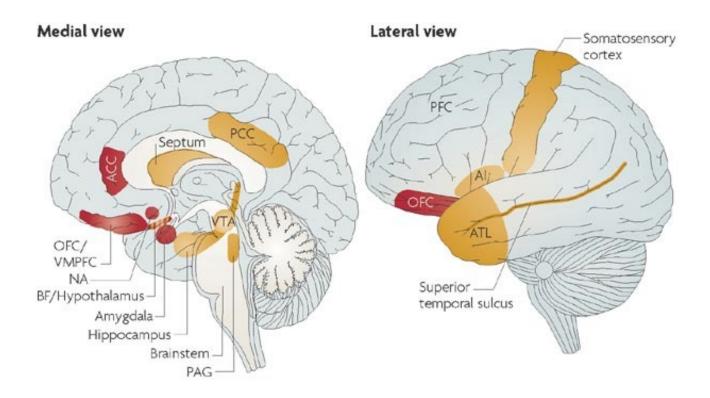
## The Emotional Centres of the Brain



Nature Reviews | Neuroscience

## **General Brain Structures:**

Nature Reviews Neuroscience 9, 148-158 (February 2008): On the relationship between emotion and cognition - Luiz Pessoa [You can't access the full article without paying – the link is this.]

Summarizing the set of brain regions that comprise the emotional brain is plagued by possibly insurmountable conceptual difficulties. Nevertheless, some regions feature prominently in the discourse surrounding affective neuroscience. They are listed here based on an informal assessment of the frequency with which they appear in the literature; regions appearing with greater frequency will be labelled 'core', and less frequent ones as 'extended'. The core emotional regions (dark red areas in figure) include, subcortically, the amygdala, the nucleus accumbens (NA) and the hypothalamus, and cortically, the orbitofrontal cortex (OFC), the anterior cingulate cortex (ACC) (especially the rostral part) and the ventromedial prefrontal cortex (VMPFC). Extended regions (brown areas) include, subcortically, the brain stem, the ventral tegmental area (VTA) (and associated mesolimbic dopamine system), the hippocampus, the periaquaeductal grey (PAG), the septum and the basal forebrain (BF) (including the nucleus basalis of Meynert); and cortically, the anterior insula (AI), the prefrontal cortex (PFC), the anterior temporal lobe (ATL), the posterior cingulate cortex (PCC), superior temporal sulcus, and somatosensory cortex. Although one could attempt to link the core and extended regions to specific affective functions, such an attempt would be largely problematic because none of the regions is best viewed as 'purely affective'.