These two processes are depicted diagrammatically in Figure 2.1 below.
neuropsychological-psycholinguistic models. In lexical or surface agnosia, difficulty arises in a similar vein, McLaren and Troina (2005) describe agaphean syndromes based on pseudowords and difficulty with low frequency words (WEP, 2005).

In the experimental effect of spelling regularity (WEP, 2005), phonological alexia represents a pronounced effect of spelling regularity in e.g., the lexicon. However, errors are phonologically related to the target and there is a pronounced effect of spelling regularity in an inability to access the phoneme input. There is a pronounced effect of length of spelling regularity but a pronounced effect of frequency (WEP). Therefore, errors are semantically related to the target, the patient can read pseudowords, and phonological representations and impaired phonological-to-phoneme conversion. Impaired phonological representations and phonological-to-phoneme conversion.

Figure 2.2: Major lobes of the brain with location of important language areas.

The lesion of Broca's (Baldwin, 1885, 1889) and with posterior extension, comprehension can also be impaired with paraphasic speech and apraxia (Frost, 1987). Anomic aphasia is also often observed (Alexander et al., 1980).
with the hippocampal system. The posterior dorsoventral thalamic appears to underlie
and the memory system may be exercised via the dorsal hilus pathway that links recollection
manipulation of information. The interaction between the mid-dorsolateral prefrontal region
and monitoring of information in working memory, necessary for high level planning and
of information (Perdices & Pandya, 2002). Third, the dorsolateral prefrontal region is critical for
modulation of movement of activity for the purpose of strategic information encoding and retrieval.
Top-down modulation of activity in the prefrontal region via the mid-dorsolateral prefrontal connection can express a
the mid-dorsolateral prefrontal region via its strong bidirectional connection can express a
critical role in the regulation of emotional awareness and motivational value of stimuli. Second,
critical for the regulation of emotional awareness and motivational value of stimuli. Second,
kyn (Mesulam, 2002). The significance of these connections is that they are thought to be
in other paralimbic cortices in the temporal pole, insula, parahippocampal gyms and cingulate,
This area is extensively connected to the hypothalmus, amygdala, hippocampus and also the
First, sensory information in post-formal areas is provided to the parietal cortical region.

Figure 3.1: Lateral and medial views of the thalamic lobes and prefrontal cortex (Mesulam, 2002)
Figure 3.2: Neuroanatomical transmission in the PFC (Aramian & Robbins, 2002)

The diagram illustrates the neuroanatomical transmission in the prefrontal cortex (PFC). The PFC receives input from various regions, including the thalamus (TH), and projects to different areas such as the dorsolateral prefrontal cortex (DLPFC), the orbitofrontal cortex (OFC), and the ventromedial prefrontal cortex (VMPFC). These connections are crucial for various cognitive functions, including working memory, attention, and decision-making. The diagram shows the intricate network of neural pathways involved in these processes, highlighting the importance of the PFC in higher-order brain functions.
Figure 3.3. Barkley’s model of behavioural inhibition and executive function (1997).
reported by Kossorl, Bozeman, and Freeman (2003), a 5-year-old with Landau-Kleffner syndrome who had a history of increasing verbal fluency. A particularly interesting case study was described in which a 34-year-old woman treated with LEV, the formaldehyde derivative, improved in verbal fluency in a 4-year-old girl. The disappearance of seizure behaviors and improvements in verbal fluency in children with Landau-Kleffner syndrome (Jelinek et al., 1997) demonstrated significant improvements in verbal attention, verbal working memory, and verbal fluency as well as in a visual planning task in a different patient with Landau-Kleffner syndrome (Corinna, 2003). LEV has also been shown to control seizures in children with Landau-Kleffner syndrome (McKee et al., 2004). Although some have suggested that LEV may have improved cognitive function, several patients have not demonstrated these improvements in verbal attention, verbal working memory, or verbal fluency. Parkinson et al. (2004) report improvements in verbal fluency in children with Landau-Kleffner syndrome (Corinna, 2003). The improvement in verbal fluency in children with Landau-Kleffner syndrome (Corinna, 2003) is consistent with previous reports of improved cognitive function in children with Landau-Kleffner syndrome (Corinna, 2003).

Despite early claims that LEV demonstrated improved cerebral function, these improvements occurred in selected patients and were not consistently observed in children with Landau-Kleffner syndrome. As a result, LEV has not been recommended for use in children with Landau-Kleffner syndrome (Corinna, 2003).

Figure 4.1: The chemical structure of LEV and its metabolite LO75.

![Chemical structure of LEV and LO75](image)
Figure 6.1 - Schematic representation of areas involved in executive control

Green (2007) presents a schematic model of the areas involved in executive control and the prefrontal cortex remains to be delineated (Elliot, 2003). Figure 6.1 from Abahalel and how these discrete regions and their differential contributions contribute to the executive role of orbital and medial frontal/anterior cingulate gyri involved in emotional processing. Each of the prefrontal cortex and superior temporal gyrus contribute to the behavioral component by the internal primitive with spatial and conceptual reasoning and the behavioral component may be used to support the current hypothesis (Fuss & Levine, 2002). Cognitive functions attributed to the frontal lobes are more likely to be supported by the function of the dorsal prefrontal cortex involved in cognitive domains (Cohen et al., 2007). This distinction is comparable with the two major classes of executive disorders, which have been differentiated roughly into behavioral and emotional. The other neural component is the prefrontal cortex, which supports several subregions of the prefrontal cortex, including the prefrontal cortex, anterior cingulate cortex (Achenbach et al., 2004). These systems are responsible for the connectivity with the brainstem and spinal cord systems, which are notable in the current literature. Several studies of executive functions have been conducted among individuals with prefrontal cortex damage (Damasio et al., 2003) and PET studies have also contributed to the neurological sites implicated in performance of a growing body of neuro-psychological research using functional imaging techniques such as fMRI.