Left frontal lobe

There are important asymmetrical differences in the frontal lobes. The left frontal lobe is involved in controlling language related movement, whereas the right frontal lobe plays a role in non-verbal abilities. Some researchers emphasize that this rule is not absolute and that with many people, both lobes are involved in nearly all behavior.

Kolb & Milner (1981) found that individual with frontal damage displayed fewer spontaneous facial movements, spoke fewer words (left frontal lesions) or excessively (right frontal lesions).

One of the most common effects of frontal damage can be a dramatic change in social behavior. A person's personality can undergo significant changes after an injury to the frontal lobes, especially when both lobes are involved. There are some differences in the left versus right frontal lobes in this area. Left frontal damage usually manifests as pseudodepression and right frontal damage as pseudopsychopathic (Blumer and Benson, 1975).

The frontal operculum contains the center for expression of language. Patients with left frontal operculum lesions may demonstrate Broca aphasia and defective verb retrieval, whereas patients with exclusively right opercular lesions tend to develop expressive aprosodia.