The frontal lobe hypothesis of aging suggests that the pattern of cognitive declines typically associated with aging are the product of decreased frontal lobe functioning in older adults. However, recent research suggests that young adults can be differentiated into high and low frontal lobe and medial temporal lobe functioning as well, indicating that not all young adults are high in frontal lobe functioning and that individual differences in these areas exist. The current study used neuropsychological assessments to differentiate young adults into high and low frontal and medial temporal lobe functioning, and event related potentials (ERPs) to examine electrophysiological activity occurring during a memory task. The current aim of the research is to further examine the ERP data and look at individual differences in encoding ERPs for high vs. low frontal lobe and medial temporal lobe participants.