Event related potentials were generated by three different tasks (an odd-ball tone task, a task requiring a simple semantic discrimination between two words, and a task that required a complex semantic categorization of words) in four groups: Positive schizophrenics, Negative schizophrenics, Depressives and Normals. While no deficit in N100 and P200 amplitudes were observed, both schizophrenic groups manifested a markedly decreased P300 amplitude on each of the experimental tasks. The depressives did not manifest a marked or pervasive P300 deficit in amplitude. What was also observed, was a P300 latency deficit that was specific to Negative schizophrenics, and specific to the task that involved semantic categorization. The above results, viewed in the context of other neuroradiological and neuropathological findings, indicate a brain dysfunction in some schizophrenics.