A modified memory scanning paradigm was used to record behavioral measures and event-related potentials in order to compare verbal and nonverbal items. Memory sets consisting of either 1, 3, or 5 items were followed by a probe item. Eleven normal young subjects indicated by button press whether the probe item was (or was not) a member of the preceding memory set. Verbal stimulus items consisted of digits 1–9 presented auditorily (synthesized) or visually; nonverbal items were musical notes Middle C through D (one octave above). Scalp EEG was recorded from Fz, Cz, and Pz sites. Reaction times (RTs) and evoked potentials were collected and averaged to correct probes (pooled over in- and out-of-set items).

Accuracy for auditory and visual digits was uniformly high for the three set sizes; some decline in accuracy for notes accompanied the larger set sizes. RTs for the three modes of presentation increased with set size. Auditory (52 ms/item) and visual (43 ms/item) digit RT slopes were different from notes (111 ms/item). RT intercepts were larger for auditory digits (523) than visual digits (476) or notes (487). The latency of a late (511–655 ms) parietally distributed positive potential covaried with set size. Latency slopes among auditory digits (26 ms/item), visual digits (24 ms/item), and notes (38 ms/item) were comparable and not different from each other. Late potential intercepts for auditory digits (558) were larger than for notes (436) or visual digits (459). These results suggest a difference between verbal and nonverbal memory pro-
cesses, particularly evident in the steeper slopes for notes compared to digits, and a modality effect for the latency of the late potential between digits presented auditorily or visually.