

Study Set 5

(Roesler et al., 1994; Gonsalves & Paller, 2000; Kutas & Hillyard, 1980; Kutas & Schmitt, 2003; Osterhout et al. 1997; DeLong et al. 2005; Hagoort et al. 2004)

1. Describe the basic paradigm Rosler et al. use to examine memory retrieval processes for nonsemantic memory representations. How does the distribution of the slow wave reflecting memory in Rosler's paradigm vary with the stimulus material? What might this say about the brain organization of memory or how memory is represented in the brain?

2. What is the main goal of the Gonsalves and Paller study? Explain why Gonslaves and Paller made the following methodological choices?

- using 2 study task stimuli: words without and without pictures following
- using auditory words at test
- examining both study and test phase ERPs

What were the two main findings in the Gonsalves and Paller study and what were the implications of these findings? What evidence allowed Gonsalves and Paller to conclude that visual imagery can play a role in at least certain types of false memories?

3. Provide some evidence for the statement that not any unexpected event within a linguistic stream will elicit an N400. Provide evidence for the statement that a semantically anomalous word in sentence context is neither necessary nor sufficient to elicit an N400 component.

4. What are two components (and their temporal and topographical) characteristics that have been linked to “syntactic” violations in the ERP literature?

5. Give an example of a language comprehension experiment using ERPs that does not include overt violations of any type.