EEG Paper Outline

Introduction

1. Description of associations (50-52) and semantics (60-62), give examples
2. Describe how we measure association and semantics
   1. Nelson, McEvoy and Schreiber (2004) – free association database, associative
   2. Maki, McKinley, and Thompson (2004) – WordNET database, semantic
3. Previous semantic priming literature (explain semantic priming first)
   1. How do we study semantic priming traditional (lexical decision task, letter search, naming, masking)
   2. New ways – N400 explanation (picture) Event related potentials first
   3. EEG N400 literature here
4. Here’s what we wanted to show:
   1. Hypothesis
   2. Brief description of what we did

Methods

1. Participants (12, recruited at the University of Mississippi, girls and guys, no incentive for participation, with permission from the Internal Review Board).
2. Apparatus
   1. EEG Set Up
   2. <http://www.neuroscan.com/nuamps.cfm> (NuAmps)
   3. <http://www.neuroscan.com/quick_caps.cfm> (32 channels)
3. Materials (see experiment 2)
   1. (how many of each word pair)
   2. Related word pairs
      1. Associative word pairs – created them so that they only had high associative values (FSG >.5), very low to no semantic values JCN > 20
      2. Semantic word pairs – created so that they had only high semantic values JCN < 3 no associative values FSG <.01
   3. Unrelated word pairs – created so that they did not have scores in any database, basically we repaired them so they were not related
   4. Non-word pairs – created unrelated pairs and then changed a letter the second word so that it was no longer a word (left the structure intact, so processing was required)
   5. Programmed with Stim2 (<http://www.neuroscan.com/stim.cfm>)
4. Procedure
   1. EEG Set up
      1. A1/A2 references
      2. Ground (reference name)
   2. How it was set up (meaning the experiment)
      1. Words stayed on the screen until participant pressed a key
      2. Keys they used
      3. Random order of word pairs
      4. Arial 19 point font
      5. Order they did stuff (semantics first, associations first, randomly assigned)
      6. Instructions for each set (yes/no discrimination task)