031:010 Research Methods in Psychology Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Assignment #4 – Due **before** your Mar 26 - 30 section meeting; submit your answers by saving this page as “*yourname*.docx” (instead of “assign4.docx”) and uploading it to your section instructor’s drop-box on ICON. Please keep a copy for yourself to bring to class or otherwise have notes on this for discussion.

*This homework is based on left-brain-anger article* (link on website). As a preview, the authors first focus on the ideas that body posture can affect both behavior and emotional state. They next review previous work using EEG (brain-waves) showing more left prefrontal activity during the experience of anger. But then they say that a different measure of the brain, fMRI, hasn’t found more left prefrontal activity when subjects are angry. One possible explanation for the difference in the results is that the researchers using fMRI didn’t make their subjects angry enough. But this article tests a different (and maybe more interesting) explanation for the difference in results. [Note: the one thing that is complicated is the coding of brain activity: in a nutshell, if the score for “Lateral frontal asymmetry” is positive, then left prefrontal area was more active than the right; if the score is negative, right prefrontal was more active than the left. In other words, their main DV was really “leftness of brain activity.”)

What is the second (more interesting) possible explanation for the difference in the results between EEG studies and fMRI studies?

How do Harmon-Jones & Peterson test their explanation? As in: what conditions do they include in their experiment and what does their explanation predict for these conditions?

Before your section meeting, please also think about the following: 1. Why did the researchers also include measures of *Happiness* and *Fear*, when the experiment was supposed to be about *Anger* and left prefrontal activity? 2. Would it have helped if they had included a fourth condition (and, if so, what would that fourth condition be)? 3. In what way is this experiment like a correlational study, instead of a typical experiment?