**Dr. Matthews NEUR 400 Essay Exam #4**

**Due at 10:00 AM (sharp!), Thursday April 7th**

**Worth 100 Points**

Clinical Applications of Neuroscience

This assignment is designed to improve your understanding of neuroscience, improve your writing skills, and refine your integrative complexity. To begin, choose **any 3** of the following **4** sources, which address fetal pain, brain differences among murders, recovery from vegetative states, and neural-clinical robotics.

1. Derbyshire S.W. (2006). [Can fetuses feel pain?](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1440624/) BMJ. 332(7546), 908-912.
2. Rain A, et al. (1998). [Reduced prefrontal and increased subcortical brain functioning assessed using PET in predatory and affective murderers.](http://onlinelibrary.wiley.com/doi/10.1002/%28SICI%291099-0798%28199822%2916%3A3%3C319%3A%3AAID-BSL311%3E3.0.CO%3B2-G/epdf) Behav Sci Law. 16(3), 319-332.
3. Boly M, et al., (2011). [Preserved feedforward but impaired top-down processes in the vegetative state.](http://science.sciencemag.org/content/332/6031/858.full.pdf%2Bhtml) Science. 332(6031), 858-862.
4. Rajangam S, et al. (2016). [Wireless cortical brain-machine interface for whole-body navigation in primates.](http://www.nature.com/articles/srep22170) Nature / Scientific Reports. doi: 10.1038/srep22170.

\*\* PDF versions of the sources above are available on Blackboard and the S-Drive.

Subsequently, write a ~1,500 word essay explaining the most persuasive idea, and subsequently, the least persuasive idea in your three (of the four) above-shown sources. Your essay must address your three chosen sources in the above-shown sequence, but do not number your responses.Instead, your essay should smoothly transition across the sources, each of which should be summarized in ~500 words, with ~250 words for the most persuasive idea followed by ~250 words for the least persuasive idea.

**Rubric:** Y**our grade will be based on novelty and persuasiveness of your prose, and on writing style (i.e., grammar, clarity, succinctness, organization, and transitions; see additional stylistic issues listed on the back of this page). Also, your grade will be based on how successfully you *integrate disparate ideas*, and demonstrate an understanding of the sources and their *relevance to neuroscience*.**

Use a ‘Times New Roman’ font, a ‘12’ point size and double spacing. **Your essay must be between 1,400-1,600 (inclusive) words in length. At the end of your essay, please report your word count. Example: “Word Count = 1,549”.** In MS Word, you can determine the word count by highlighting your text, and selecting “word count” from the “Review” tab. At 10:00 AM (sharp!) on the assigned day, an electronic copy of the writing assignment is due in BlackBoard and an exactly matching paper copy is due in class.

Note: Your assignment should have a cover page indicating your **Slayter Box Number** (not your name), **Date**, **Essay Exam 4**, **Dr. Matthews,** and **NEUR 400-01.** To avoid delays, print your essay at least several hours before it’s due. Also, the pages of the assignment must be stapled ***before*** coming to class. Please don’t be late. ☺

The assignment is worth 100 points of the 1,000 possible points for the course. Based on the above rubric, essays that I deem “satisfactory” for a capstone neuroscience course at an academically challenging college like ours will earn 72% of the 100 points. Your essay will earn more or fewer points to the extent that it, respectively, exceeds or falls short of that “satisfactory” standard.

Note: You must work alone on this assignment. Do not consult anyone else on any aspect of your essay.

To earn any credit on this assignment, you must also participate in the Writing Workshop session.

**Good luck, and most importantly, have fun with this assignment! ☺**

Feedback on Writing Style

1. **Spelling error**
2. **Plural / singular errors**
3. **Ineffective or incorrect punctuation**
4. **Inappropriate change in tense, or mood – use subjunctive mood (“were”) for hypotheticals.**
5. **Poor grammar**
6. **Omitted words/phrases or duplicate or extra words/phrases**
7. **Redundant use of words (within a sentence or across sentences)**
8. **Poor word-choice**
9. **Ineffective use of prepositions**
10. **Ambiguous pronoun use (e.g., to whom does “it”, “s/he”, or “they” refer?)**
11. **Use of “prove”**
12. **Lapse in succinctness (Avoid “in order”. A sentence should not exceed 35 words.)**
13. **Poor organization**
14. **Lapse in Parallelism -** [**http://en.wikipedia.org/wiki/Parallelism\_(grammar)**](http://en.wikipedia.org/wiki/Parallelism_%28grammar%29)
15. **Lapse in clarity**
16. **Lapse in logic or coherence**
17. **Non sequitur (conclusion doesn’t follow from the premise(s) )**
18. **Awkward phrasing**
19. **Informal phrasing**
20. **Personification**
21. **Ambiguous comparison**
22. **Ambiguous negation**
23. **Incorrect negation**
24. **Subject / verb separation – s/b short or zero.**
25. **Each unit of discourse should make a single point.**
26. **Ineffective transition (between sentences, or paragraphs) - Put in the topical position old info that links back; Put in the stress position new info that you want the reader to emphasize. Also avoid “pseudo transitions” - placing the topical sentence for one paragraph as last sentence in the preceding paragraph.**
27. **Locating the action - (s/b in the verb) - Action verbs help more than do “being” verbs such as “is” “are” “was” “were” “have” “had”.**