

Assignment 2

A critical review of the science behind the media

Due: **March 19th at 9am.**

Objectives

In this assignment, you will build upon select one of the media articles that were used in the 'Neuroscience and the Media' (Assignment 1) and discover whether or not that headline is supported by findings presented in published research.

In this assignment, you will **develop**:

1. Your ability to read and understand scientific literature.
2. A sense of how you convey research findings from a paper.
3. Your ability to use evidence to draw a critical (either positively, or negatively) comparison between two sources of information.

Instructions

Choose from one of the following two articles that were previously sourced from the media articles in Assignment 1. You may select from the same, or different topic that what you wrote in assignment 1.

Used in: How Meditation Affects our Brains

Desbordes, G., Negi, L., Pace, T., Wallace, B., Raison, C., & Schwartz, E. (2012). Effects of mindful-attention and compassion meditation training on amygdala response to emotional stimuli in an ordinary, non-meditative state. *Frontiers In Human Neuroscience*, 6. <http://dx.doi.org/10.3389/fnhum.2012.00292>

Used in: How Exercise Boosts Your Brain Power

Joyce, J., Graydon, J., McMorris, T., & Davranche, K. (2009). The time course effect of moderate intensity exercise on response execution and response inhibition. *Brain And Cognition*, 71(1), 14-19. <http://dx.doi.org/10.1016/j.bandc.2009.03.004>

Expectations of your paper.

Part I (~1 paragraph)

In the first part of the assignment, briefly **introduce** the media claim and **identify which source of scientific literature** that you will be working with.

Part II (roughly 2-3 pages)

Briefly summarize the primary research article that you selected– **Do not use direct quotations**. What we are looking for (and what you'll be marked on) is how well you seem to understand what each article is saying.

- What were the researchers **investigating**?
- Were there any **hypotheses**/predictions (If no hypothesis/prediction is clearly stated – what, in your opinion, is the research question?)
- Describe the **methodological** approach used?
 - Were they interested assessing changes in the brain
 - Were they focused on a particular brain area? If so, why?
 - What tools/approaches did they use e.g, fMRI, EEG, electrophysiology, etc.)
 - What were they trying to measure?
 - Who were they comparing results between?

These are the kinds of things that I'd like to see you addressing in the methodological approaches section!

- What was **found**? Be descriptive and demonstrate an understanding of key results identified in the paper and the implication of these findings.
- What **conclusions** were made?

Part III (~1 page)

Critically evaluate the media claim in the context of the scientific article that you have just summarized.

- Does this research support the claim made in the media article?
- What are the key pieces of evidence that do, or do not support it?
- If the evidence doesn't support the claim, is there another experiment that might be conducted to validate this claim? ...and in that same breath, has any other research been done on this area that might support the claim (or refute it?).

Writing support

All are encouraged to seek writing support at the Robert Gillespie Academic Skills Centre during **writing drop-in sessions**. Our writing experts can support how you structure **ideas**, **communicate** clearly, and **present knowledge** effectively.

General drop-in hours throughout the week, please visit: <https://www.utm.utoronto.ca/asc/drop-in-appointments>.

Formatting Instructions

- **Format assignment using APA style:**
 - 5 pages maximum
 - Font: **12-point**, Times (or similar), double spaced
 - Remember: Always be precise, and goal oriented in your writing.
 - **Include a title page.** Use the instructions for creating your title page from the following link: <https://owl.english.purdue.edu/owl/resource/560/01/>. Please see the written and visual descriptions provided.
 - Include a **page header and page number** (also known as the "running head") at the top of every page. <https://owl.english.purdue.edu/owl/resource/560/01/>
 - Insert page numbers **flush right at top of page (all pages)**.
 - **In-text citations and reference list.**
 - Use the following instructions to help guide your creation of **in-text citations** (<https://owl.english.purdue.edu/owl/resource/560/02/>)
 - Use the following instructions to create your **reference list:**
 - Basic Rules: <https://owl.english.purdue.edu/owl/resource/560/05/>
 - single / multiple authors: <https://owl.english.purdue.edu/owl/resource/560/06/>
 - Journal Article: <https://owl.english.purdue.edu/owl/resource/560/07/>
 - On-line 'Non-periodical' report: <https://owl.english.purdue.edu/owl/resource/560/10/>

Submission Instructions

Please read carefully as this will help ease the grading process and reduce confusions.

- **Due: NOVEMBER 20th at 9am.**
- **Name** Your files:
 - PLEASE name files using the first 3 letters of your last name and the last 3 digits of your student ID. For example, if I were to hand in an assignment, I would name my assignment "**Bes233**" as **Beston** is my last name and **233** is the last 3 digits of my undergrad student ID! I don't mind if you add anything after that, like "**Bes233 Assignment1.pdf**."
- **Where to submit** Your files:

MANDATORY SUBMISSION - Your assignment should be **uploaded to PORTAL**. This process works in conjunction with Turnitin.com and makes the process of submitting assignments a little easier.

OPTIONAL SUBMISSION - You can earn Course Engagement Credit (CEC, 2%) by peer reviewing the work of two other students **BEFORE THE DUE DATE**. To participate in this process, you **MUST** upload a copy of your work to PeerScholar (link found in assignment folder) by **Monday, November 13th at 9am**. You will then be assigned to review two other pieces of work and you will be given until **Wednesday the 15th at 11:59pm** to complete your reviews. Only students that have completed both peer reviews will receive credit.

Assessment

Assignment be assessed on the following criteria:

(Items will be assessed using an 8 point scale of your ability to demonstrate these elements.)

Part I –The Introduction:

1. How well is the media claim introduced and linked to the primary research article?

Part II – Summary of Research Article

2. Does the student introduce the **rationale** and **hypothesis** of the main research article?
3. Is there a clear explanation of **how** the research was conducted.
4. Does the student accurately convey the **main research findings**.

Part III –Critical Evaluation of Media Claim

5. Does the student **compare** the media statement in light of the research article findings. Comment.
6. Does the student demonstrate a meaningful attempt to **reflect / evaluate** the claims in the media article.

Style

7. Clear communication and organization of written work.
8. Evidence of effective integration and use of source material.
9. Appropriate use of **APA formatting** throughout.

Do NOT exceed the page limit. Our Teaching Assistants will be instructed to stop reading beyond the page limit and to provide a comment that they have done so.