

Exercise 06 ■ Methods

Name: _____

Goals

1. To understand what aspect of neural structure or function a given method measures.
2. To understand what spatial and temporal scales characterize different methods.
3. To understand the comparative strengths and weaknesses of different methods in answering questions about behavior and internal states (thoughts, feelings, and memories).

Activity

Answer the following questions in a few sentences:

1. What technique(s) for recording neural activity have especially high spatial and temporal resolution?
2. Which of these techniques would be most suitable for use with human participants?
3. Why is functional MRI considered an *indirect* measure of neuronal activity?

Choose a behavior, an internal psychological state, or a disorder that interests you or your group partners. Search the literature for one to three (1-3) papers that illustrate two to three (2-3) different methods. Answer the following questions about these papers and methods in a few sentences:

5. For each method, describe what evidence it provides about the neurological basis of your topic.
6. How do the different sources of evidence compare with one another?
7. What essential gaps exist in our understanding of the psychological phenomenon based on the biological evidence?

Submission details

- Submit your write-up by **Wednesday, March 5, 2025 at 11:59 pm**.
- If you work with other people, please indicate the name(s) of your co-authors in your document. You need not include them in the document file name, however.
- If you found any resources that were especially useful to you in answering these questions, please cite them.