

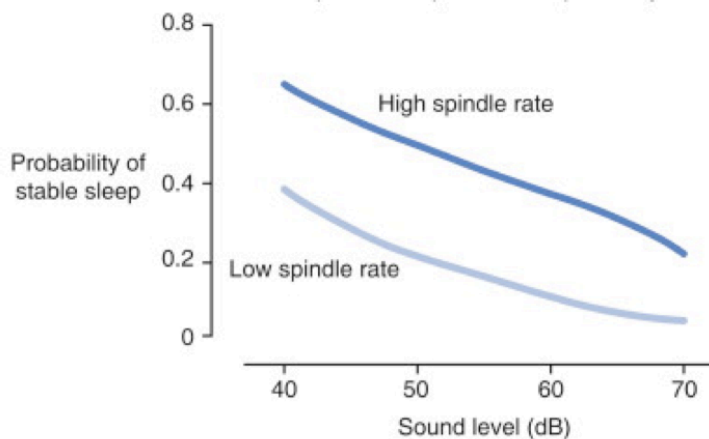
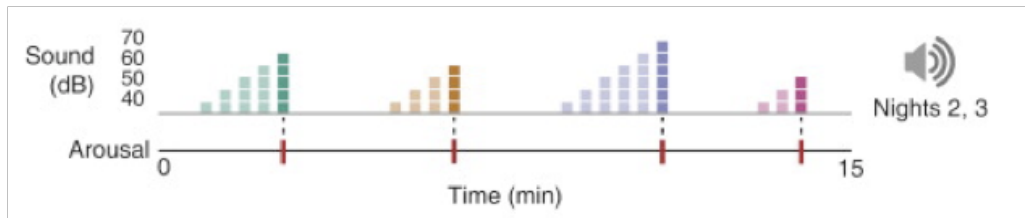
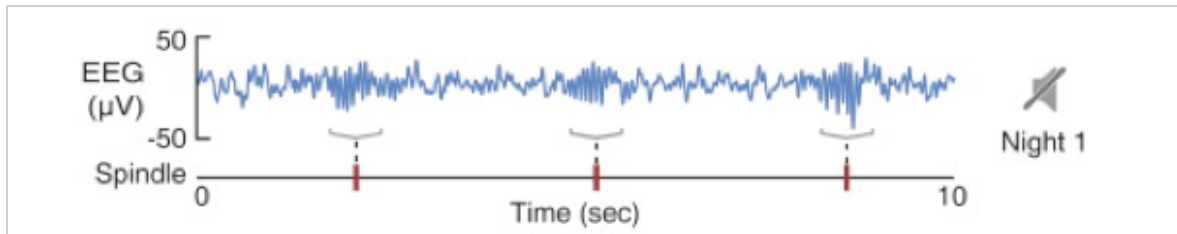
# Scholarly Journal Articles

Obj. 5.10: Identify the purpose and conclusion of a scholarly journal article



## Data Challenge!

Examine the following data representations and make inferences about the purpose and the conclusions of the study from which this data came. Use all your clues and make logical guesses!



Purpose:

Conclusion:

## DISCUSS

**Two Heads...**

Two heads are better than one. The previous exercise was probably a challenge. Work with a partner to discuss what you could make of the data and together work to refine your Purpose and Conclusion.

NEW  
INFO**What is a Scholarly Journal?**

In academic publishing, the goal of peer review is to assess the quality of articles submitted for publication in a scholarly journal. Before an article is deemed appropriate to be published in a peer-reviewed journal, it must undergo the following process:

- The author of the article must submit it to the journal editor who forwards the article to experts in the field. Because the reviewers specialize in the same scholarly area as the author, they are considered the author's peers (hence "peer review").
- These impartial reviewers are charged with carefully evaluating the quality of the submitted manuscript.
- The peer reviewers check the manuscript for accuracy and assess the validity of the research methodology and procedures.
- If appropriate, they suggest revisions. If they find the article lacking in scholarly validity and rigor, they reject it.

Because a peer-reviewed journal will not publish articles that fail to meet the standards established for a given discipline, peer-reviewed articles that are accepted for publication exemplify the best research practices in a field.

Scholarly journal articles in science will typically have the following sections (or similar):

- Abstract (a short summary of the entire study)
- Introduction/Background
- Literature Review
- Methods
- Results
- Conclusions

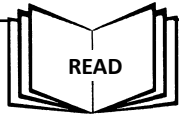
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Peer-reviewed, scholarly journal articles are challenging (but essential!) texts in science. Although they are written at a high level, with practice and reading strategies, you can make sense of them! Think about it, all of the scientific discoveries on any topic you can conceive of are available at your fingertips. To start out successfully, be sure you are focusing on critical reading. Work to figure out the purpose of the study, ask why, look up difficult vocabulary, draw inferences, and make connections. Finally, use ALL of your clues--assessing the title, headings, labels, captions, and the overall organization can make a huge difference

## READ

**Act I: The Abstract**

In this lesson, we will evaluate a complex abstract. Although it will be a challenging read the first time through, use reading strategies and annotate the text to help you make sense of it. Use the bubbles to track the Purpose, Results, & Conclusion in your own words.



## Spontaneous brain rhythms predict sleep stability in the face of noise

Thien Thanh Dang-Vu<sup>1,2,3</sup>,  
Scott M. McKinney<sup>2</sup>,  
Orfeu M. Buxton<sup>1,4</sup>, Jo M. Solet<sup>1,5</sup>,  
and Jeffrey M. Ellenbogen<sup>1,2</sup>

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Quality sleep is an essential part of health and well-being. Yet fractured sleep is disturbingly prevalent in our society, partly due to insults from a variety of noises [1]. Common experience suggests that this fragility of sleep is highly variable between people, but it is unclear what mechanisms drive these differences. Here we show that it is possible to predict an individual's ability to maintain sleep in the face of sound using spontaneous brain rhythms from electroencephalography (EEG). The sleep spindle is a thalamocortical rhythm manifested on the EEG as a brief 11–15 Hz oscillation and is thought to be capable of modulating the influence of external stimuli [2]. Its rate of occurrence, while variable across people, is stable across nights [3]. We found that individuals

who generated more sleep spindles during a quiet night of sleep went on to exhibit higher tolerance for noise during a subsequent, noisy night of sleep. This result shows that the sleeping brain's spontaneous activity heralds individual resilience to disruptive stimuli. Our finding sets the stage for future studies that attempt to augment spindle production to enhance sleep continuity when confronted with noise.

### Purpose

### Results

### Conclusions



### Analyze the Study

Use the abstract and data (from the Do Now) to answer the following questions.

1. According to the study, the ( more / less ) spindles you have per minute, the ( better / worse ) you are at sleeping through noise.
2. Predict: Write a sentence predicting the relationship between about **spindles** and **sleep through light**.
3. In this study, people who probably had poor quality of sleep were most likely those with ( high / low ) spindle rates. Explain!
4. According to the study, which group of people would be most likely to wake up in the middle of the night if the neighbors in the apartment next door started blasting music at 50 dB?
5. Based on the information in the graph, which person is most likely wake up? (Circle one.)
  - a. Suzie has a high spindle rate and at 6:30am her brother runs in to wake her up in the morning, screaming at a 70dB level
  - b. Pablo has a low spindle rate and at 6:00am a bird flies into the window, hitting it with a crash at a 40dB level
6. Based on results from the study:
  - a. How likely is it that Mr. Smith (who has high spindle rates) would wake up if exposed to his wife's 50 dB scream when she goes into labor in the middle of the night? \_\_\_\_\_% likely
  - b. How likely is it that Mr. Taylor (who has low spindle rates) would wake up from his lunchtime nap if exposed to the passing period bell at 40 dB? \_\_\_\_\_% likely



### Purpose & Conclusion

Summarize the purpose & conclusion of the article in your own words.

Purpose:

Conclusion:



### Influenza Scholarly Study

Use Google Scholar to find an abstract for a scholarly journal article focused one risk factor for influenza (you choose!). Summarize the Purpose, Methods, Results, & Conclusions on a separate sheet of paper.