

### **APA citation of journal article:**

Seli, P., Carriere, J. S. A., Wammes, J. D., Risko, E. F., Schacter, D. L., & Smilek, D. (2018). On the Clock: Evidence for the Rapid and Strategic Modulation of Mind Wandering. *Psychological Science*, 29(8), 1247–1256. <https://doi.org/10.1177/0956797618761039>

### **The Basics:**

1. What was the broad question being asked by this research project? What was the specific question being asked by this research project?
  - a. Summarize the background information on the research topic in three sentences.
  - b. What is the gap in the literature identified by the researchers? What question(s) are they trying to answer? What is their hypothesis and what should happen if the author's hypothesis is true?
  - c. What are alternative hypotheses?

The study aimed to explore the relationship between mind-wandering and attention. The researchers hypothesized that when task requires more attention, participants will modulate their minds to wander less and focus more on the task.

2. What experiments were done to test the hypothesis or investigate the research question?
  - a. Explain the task design – what are participants instructed to do and what is being measured? Think about the independent and dependent variables.

Participants were asked to complete a task that demands more attention at some times than others. The amount of attention needed at a given time is completely predictable. The participants were asked to self-report their level of mind wandering at set intervals of the task through thought probes.

3. What evidence supports each of the conclusions?
  - a. Before you read the discussion, summarize the main findings and link each one back to the research question(s). How does each result inform the hypothesis?

According to the self-reported measure of mind wandering, the participants mind wanders the most when less attention is needed, and they modulate their minds to wander less when they need to perform the task. This supports the hypothesis.

4. What are the major conclusions?
  - a. What do the results add to the field? How do the researchers interpret their findings? Summarize any limitations identified by the researchers.

The researchers conclude that such results indicate that people are capable of modulating their minds when they expect themselves to pay attention. Maybe future research can explore the moderating role working memory capacity plays in this process.

### **The Critique:**

1. Is the paper well written? How do you know? For week 2 & later, use this space to practice headlines & summaries of the articles via tweets.

This paper follows the APA style and is pretty well written.
2. Do the conclusions seem logical given the data processed? Why or why not? Another way of thinking about this: do the results adequately support the conclusions that are drawn? Are there alternative explanations for the findings? What inferences about the hypotheses and questions can be made based on these results?

I don't know how reliable self-reported measures are in this context, because answering to the thought probe questions requires attention. I also wonder if it could be inferred based on the results that the participants modulate their own minds, because we can't be completely sure that mind wandering is subjectively controlled.

3. Are the conclusions important? How do you think this relates to everyday behavior?

The conclusions are important. This does relate to our everyday behavior, considering that we sometimes need to pay more attention than other times. If we are capable of modulating our own mind to focus, we can condition ourselves to focus during events that demand great attention, such as lectures.

4. What were the best aspects of the research presented, and how could the research be improved? Name at least one way to improve the experiment.

I think the research can be improved by using objective measures instead of subjective self-reported ones. Maybe the researchers could use fMRI to monitor participants' state of mind, if they were able to locate the brain region that is in charge of attention.

5. How would you follow-up this experiment or study?

Keep up with the research of the authors' lab.

**Additional Resources:** What are the basic concepts that you need to know to understand the science presented in your paper? What other information or resources would help you better understand the paper? This is helpful to consider for your science communication pieces. Knowing the concepts behind mind wandering and attention would be helpful.

### Questions and Comments

1. Wouldn't the participants gather their attention when they answer the thought probe questions?
2. How reliable is the thought probe self-reported measurement
3. How significant is the difference they found? It doesn't seem like people's attention changed that much throughout the course.
4. When the participants expect the thought probe question to pop up every 5 seconds, then wouldn't they wander more during the intervals because they can expect the questions to remind them of time?
5. I think the future research about working memory sounds very interesting!