

Summary

Your work builds off previous research demonstrating that people perceive a specified time interval in the past as being farther away than the same time interval in the future (i.e., the Temporal Doppler Effect). First, you propose a replication of the Temporal Doppler Effect. One explanation for the Temporal Doppler Effect is it results from our subjective experience that we are moving toward the future and away from the past. However, you propose testing an alternative explanation. Specifically, you want to determine if the number of events within the time interval in question explains the temporal asymmetry between the past and the future.

You have a good start here. You are proposing a replication of the Temporal Doppler Effect and testing an alternative explanation for the effect. Your alternative explanation is reasonable and you provide some literature to support your ideas. However, the Temporal Doppler Effect has already been replicated with additional experiments and your alternative explanation has already been addressed to some extent by Caruso et al. (2013). Caruso et al. (2013) discuss and test event/task “filling in” as an explanation for the Temporal Doppler Effect. Their work related to “filling in” and intervening events as an explanation of the Temporal Doppler Effect should be discussed in the context of the research proposed in your submission. Your proposed method for exploring “filling in” and intervening events is somewhat different than the one described by Caruso et al. (2013) but both methods address “filling in” differences between future and past events. Overall, this submission feels more like the start of a research idea than a fully developed one. There is a contribution here, but more is needed to confidently say the current project is a novel and significant contribution.

Additional Comments

Introduction

- Your discussion of the Temporal Doppler Effect is clear, and your supporting discussion related to our representation of time and space is helpful. However, a more detailed description of the Caruso et al. (2013) Study 3 results is needed.
- Much of the literature you discuss centers on previous work related to the Temporal Doppler Effect. This makes sense and your discussion is appreciated. However, a more developed discussion of time perception as it relates to your research is needed. For example, you briefly discuss research exploring variables that impact time judgments of past events but additional detail would be helpful. A discussion of research exploring variables that are known to affect time judgments of future events is also needed.

Methods and Data Plan

- Your rationale for sample sizes was consistent with current practice. You decided to use quite conservative values for your power analysis but given your focus on replication this seems reasonable.
- In your study, participants will first report the perceived temporal distance to a target day in the past (or future). Next, participants will report how “filled” this time period was with errands and events. Will a participant’s errands/events response be driven by their perceived temporal distance report? If so, does this impact your ability to adequately address your research

questions/hypotheses? Your submission would benefit from a rethinking of the experimental design or some discussion of these issues.

- For study 2, you identify Cohen's d (0.45) from Caruso et al. (2013) Study 1b when explaining your sample size decision. You note this effect size is larger than the effect size used in your Study 1 (0.26) to argue your Study 2 sample size can safely be equal to that of your Study 1. However, the Caruso et al. (2013) effect size that you used for Study 1 was 0.52. You halved the original effect size of 0.52 based on concerns that it was an overestimate. I don't think you can compare the 0.45 effect size (which is still in its original form) to the 0.26 effect size (which you adjusted from the original 0.52). Some revision here might be needed to clarify your language (larger/smaller) and rationales.