

Background

- Mind wandering (MW) and on-task thought are typically measured via multiple-choice thought probes, which intermittently ask participants where their focus was just prior.
- The designs of most MW experiments focus on associating probe-reported MW or on-task thought with behavioural or neurophysiological responses.
- One issue that is often overlooked regarding this method is that the phrasing and format of probes varies considerably between studies (Weinstein, 2017).
- Differences in probe format & phrasing could lead to diffs. in reported MW and on-task thought across probes (e.g. Weinstein, De Lima & van der Zee, 2018; Seli et al., 2018).
- To date, little research has been done on how variance in probe design affects measurement of mind-wandering and on-task thought.

Methods

In a between-groups paradigm, 159 undergraduate participants completed a 30 minute in-lab SART containing 16 to 18 mind wandering probes.

Probes varied by condition and were selected from three of the most frequently cited mind wandering papers:

What was your attention focused on just before the probe?
1 (on-task) - 7 (off-task)

1 2 3 4 5 6 7

Were you just having an irrelevant thought?

Yes
No

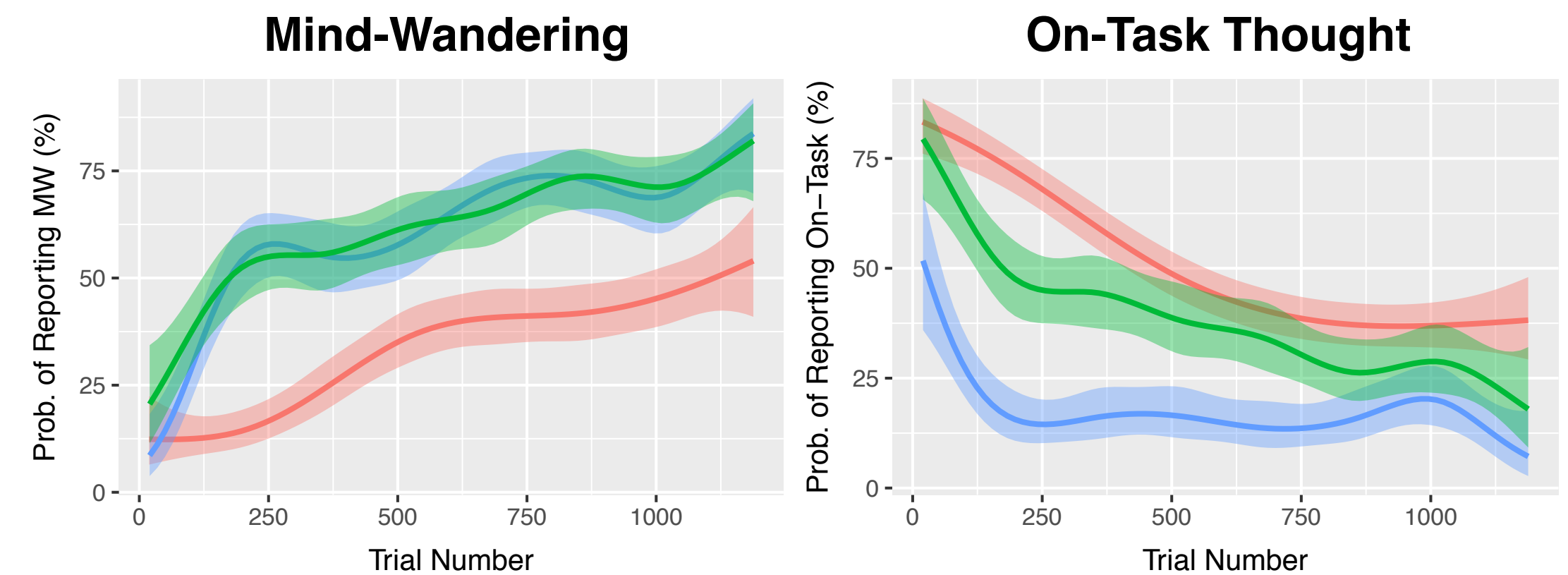
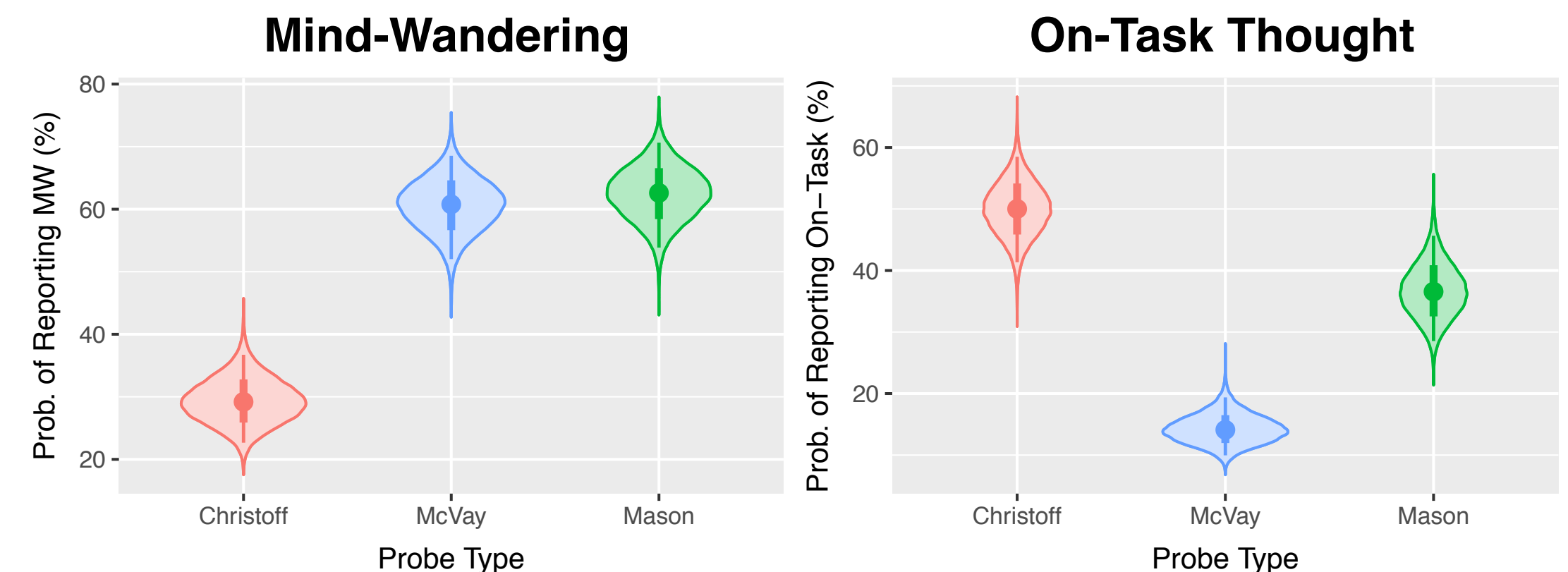
What were you just thinking about?

The task
Task experience/performance
Everyday stuff
Current state of being
Personal worries
Daydreams
Other

1. Christoff et al. (2009)
2. McVay & Kane (2009)
3. Mason et al. (2007)

Results

According to our model, the overall probability of reporting mind wandering and on-task thought differed substantially between the three probe types.



Moreover, the shape of time-on-task effects on the probability of reporting mind wandering and on-task thought differed as a function of probe type.

Conclusion

Probes of this kind have been used extensively over the past decade to examine the neural and behavioural correlates of MW and attention to tasks, however our results suggest that reports of MW are not comparable between studies. We urge researchers to be mindful when creating thought probes or replicating past research.