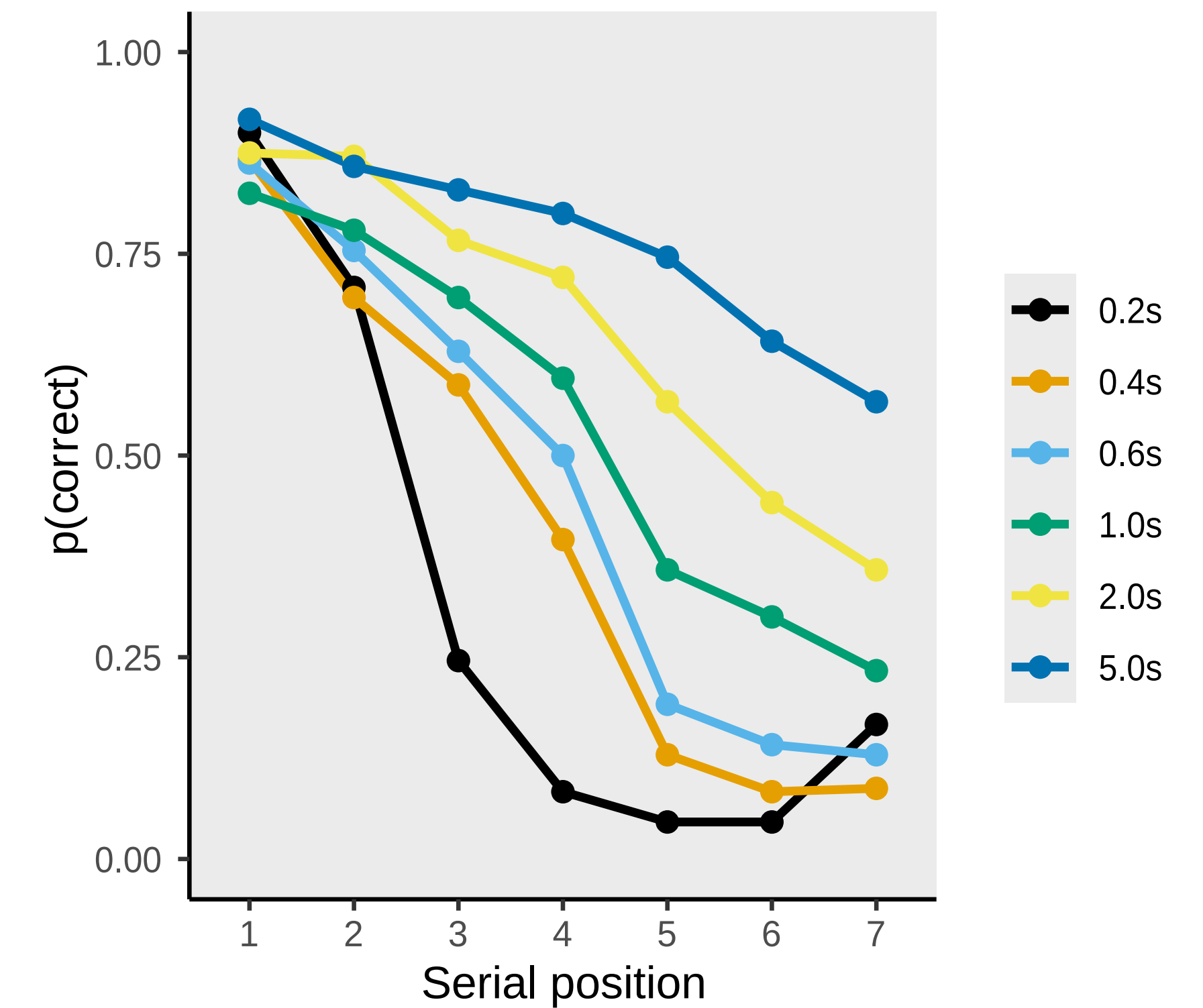


Introduction

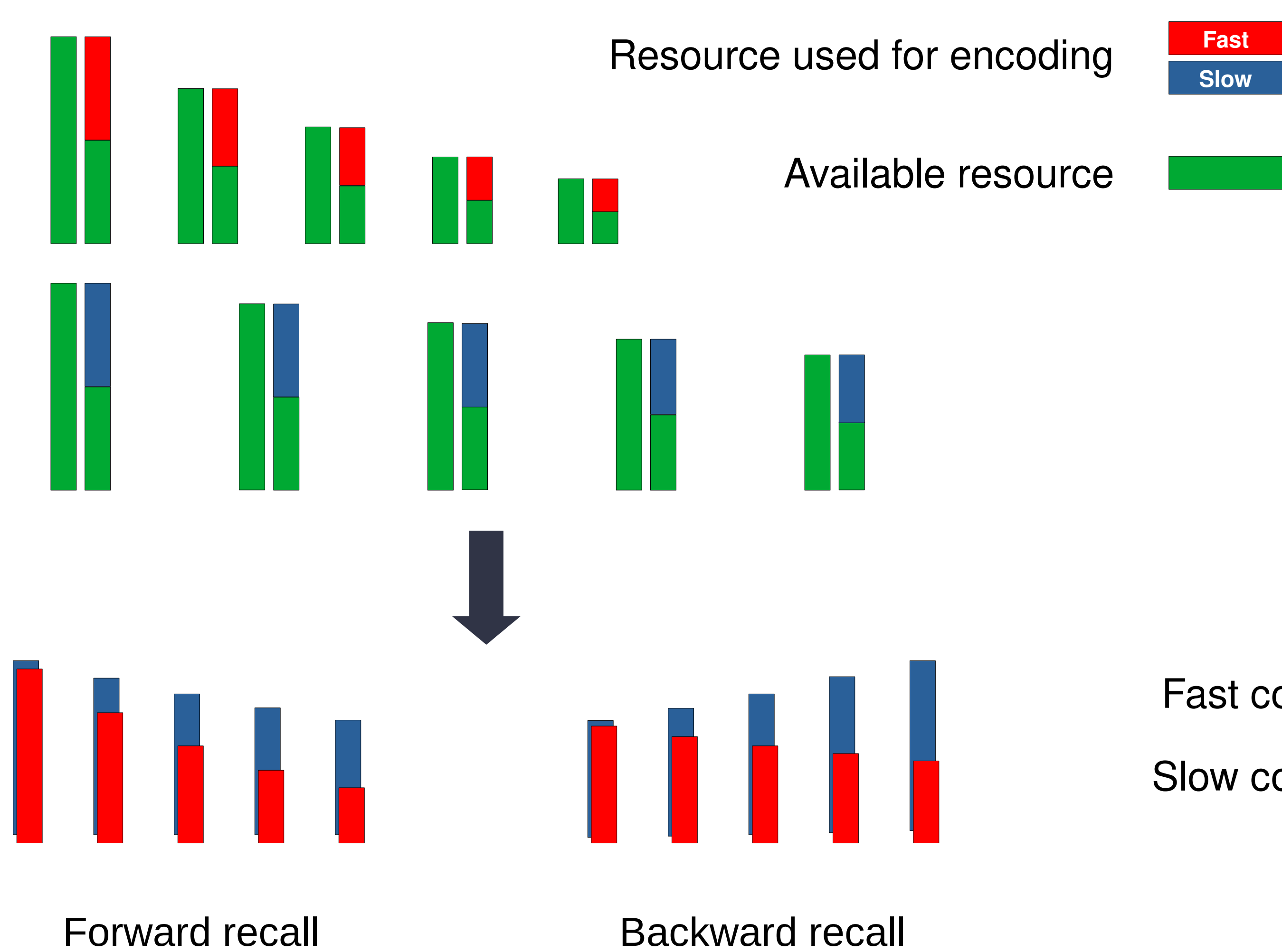
- Working memory performance improves with additional free time¹.
- This free-time benefit grows across serial position²: The *fanning-out effect*.
- **Current interpretation**: Limited encoding resources that progressively replenish with free time³.
- **Alternative hypothesis**: Stronger resistance to output interference⁴ via a **consolidation** process.

The fanning-out effect
Reproduced from Oberauer (2022)

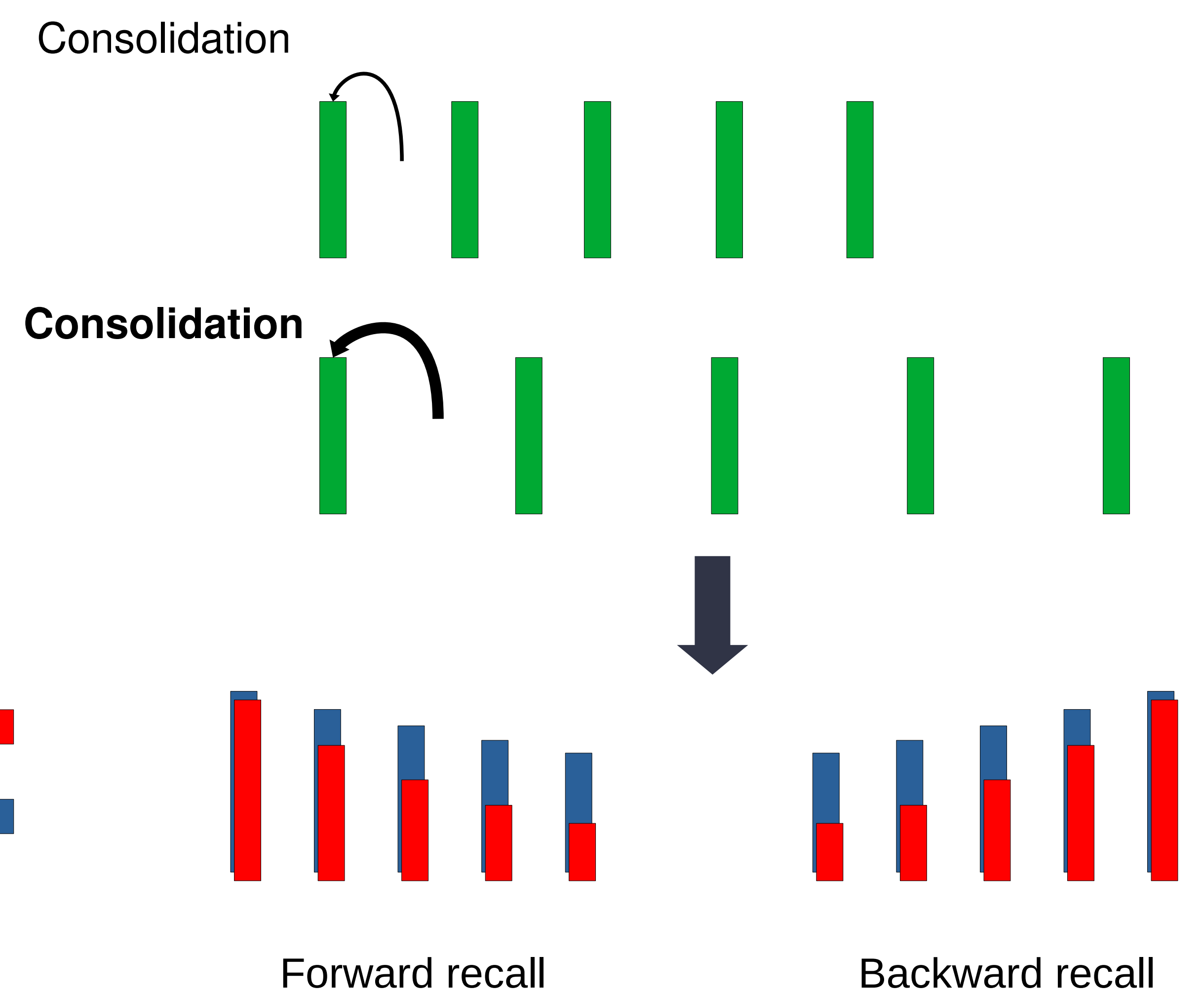


Hypotheses

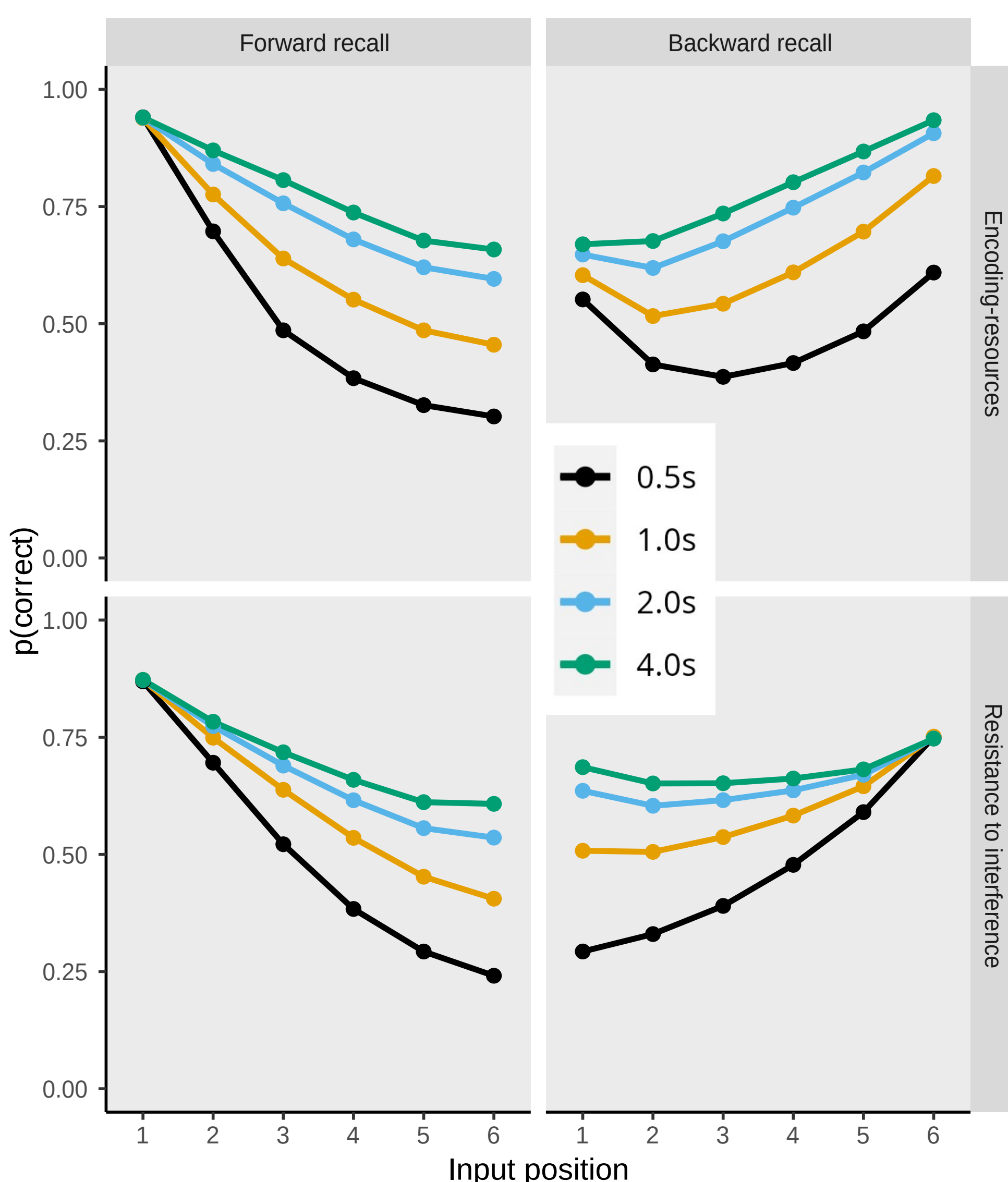
Encoding-resource hypothesis



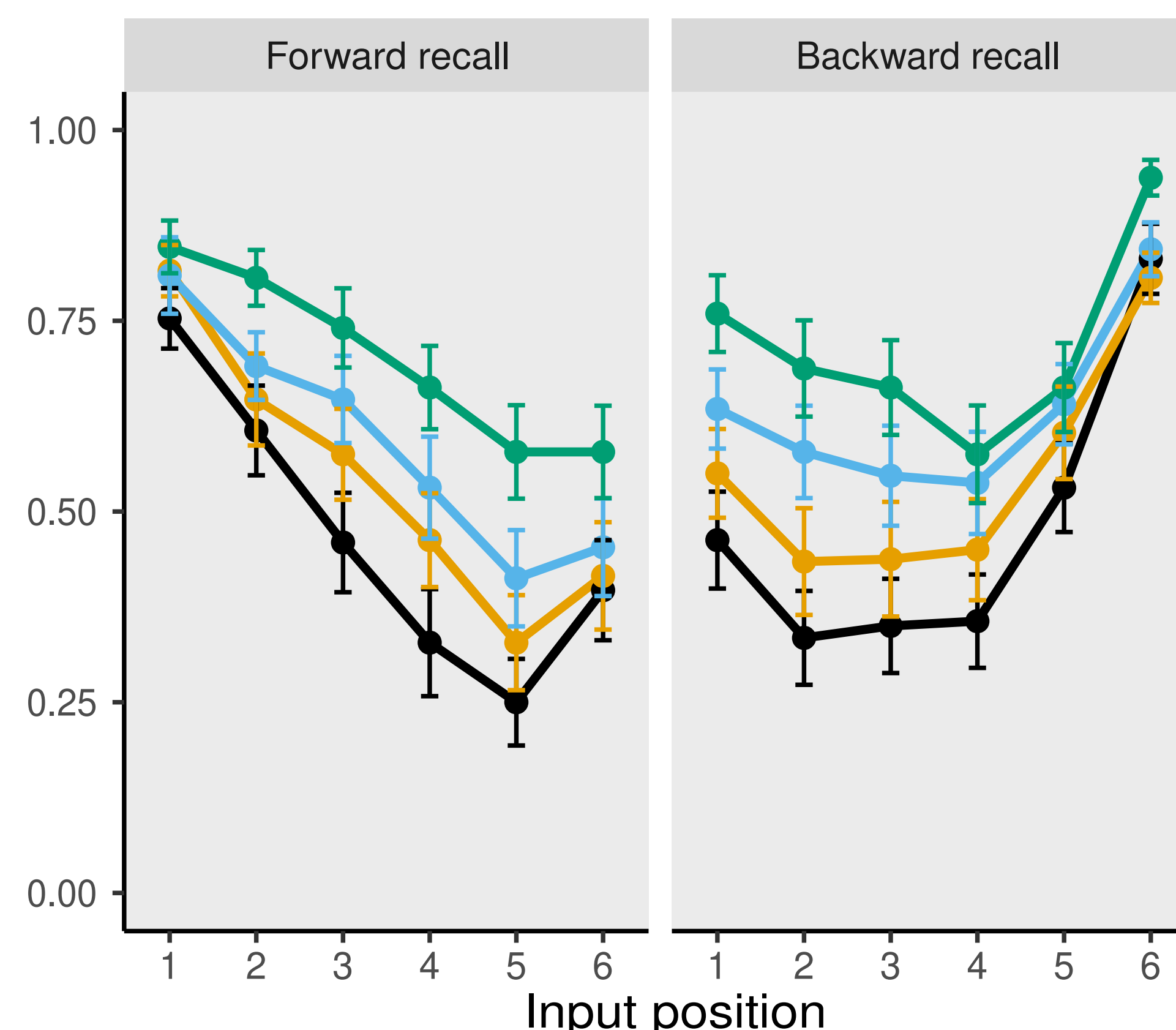
Alternative hypothesis



Predictions



Results



Conclusions

- The fanning-out effect *reversed* with backward recall.
- Does not support the encoding-resource mechanism as a plausible explanation.
- Better explained by a mechanism through which items become more resistant to output interference with additional free time.

1. Penney, C. G. (1975). Modality effects in short-term verbal memory. *Psychological bulletin*, 82(1), 68.
 2. Oberauer, K. (2022). When does working memory get better with longer time?. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 48(12), 1754.
 3. Popov, V., & Reder, L. M. (2020). Frequency effects on memory: A resource-limited theory. *Psychological review*, 127(1), 1.
 4. Cowan, N., Saults, J. S., Elliott, E. M., & Moreno, M. V. (2002). Deconfounding serial recall. *Journal of Memory and Language*, 46(1), 153-177.