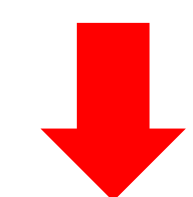




What's Lagging in our Understanding of Interruptions?: Effects of Interruption Lags in Sequential Decision-Making

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Introduction

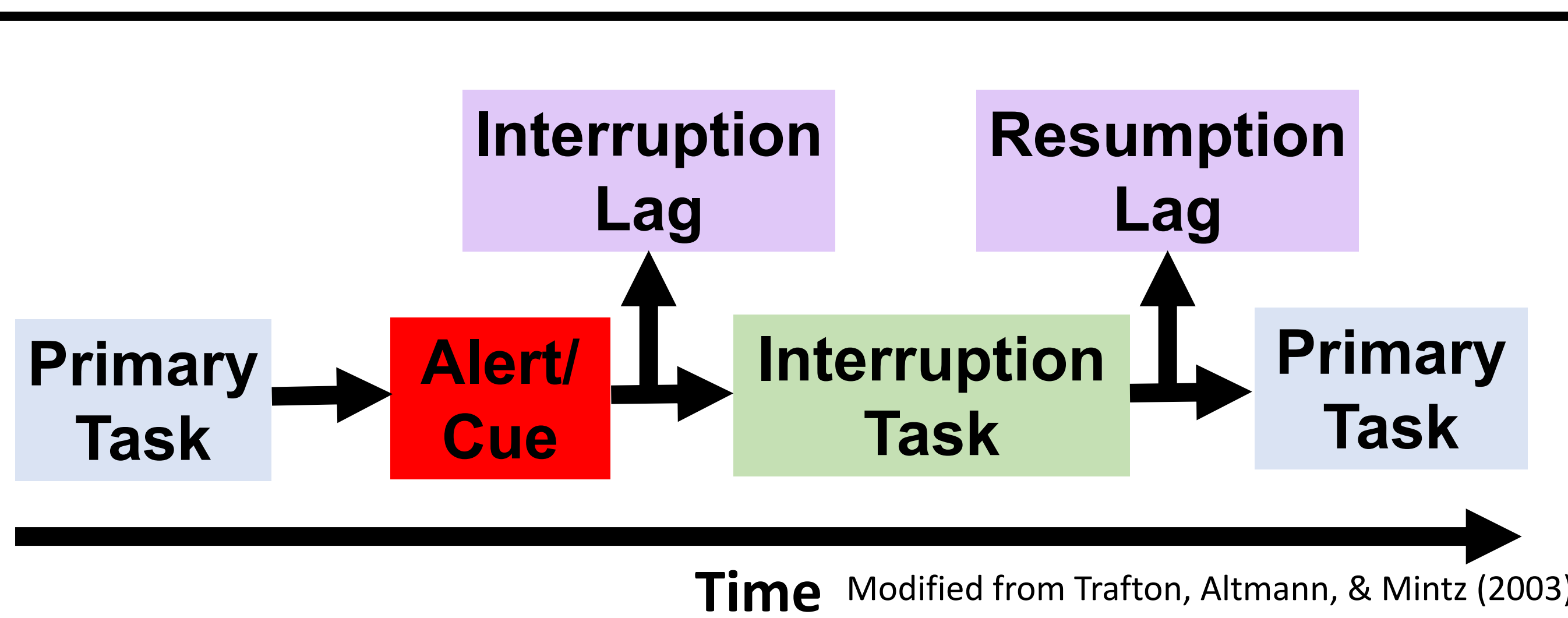
Interruptions in every day life:

-  Performance
-  Response time
-  Errors

What makes interruptions disruptive?

1. Duration of interruption
2. Complexity of interruption
3. Moment of interruption (Borst, Taatgen, & Rijn, 2015)

Theoretical Framework

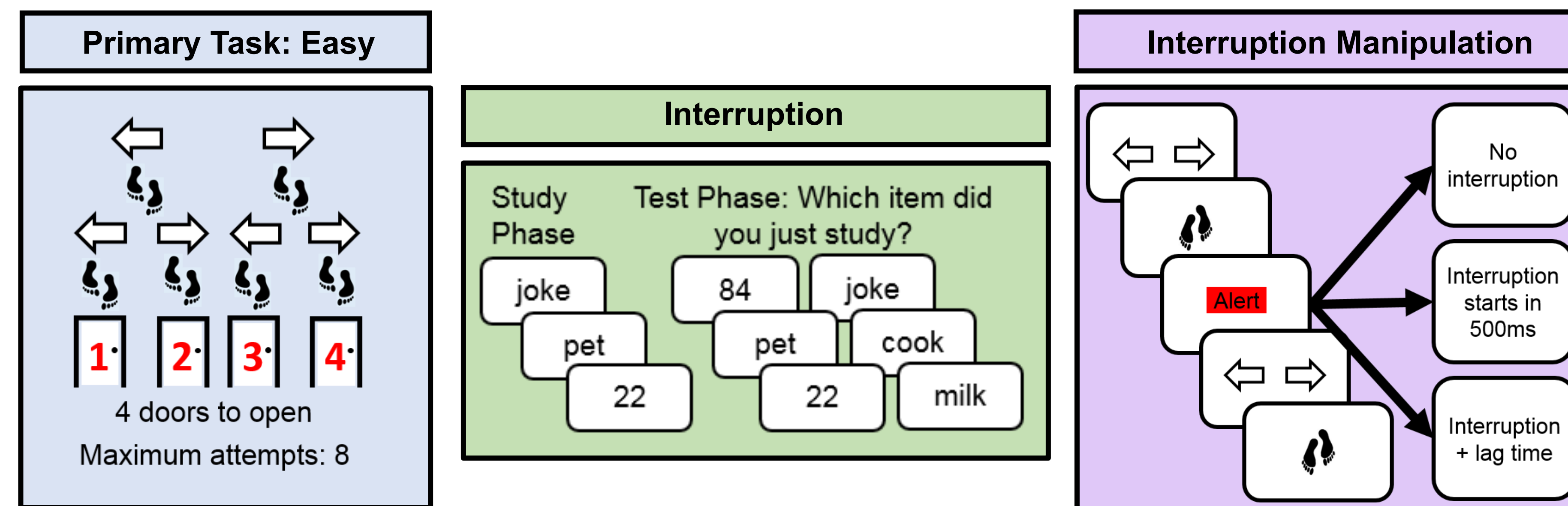


Hypothesis: Interruption lag gives you time to prepare to resume primary task after an interruption

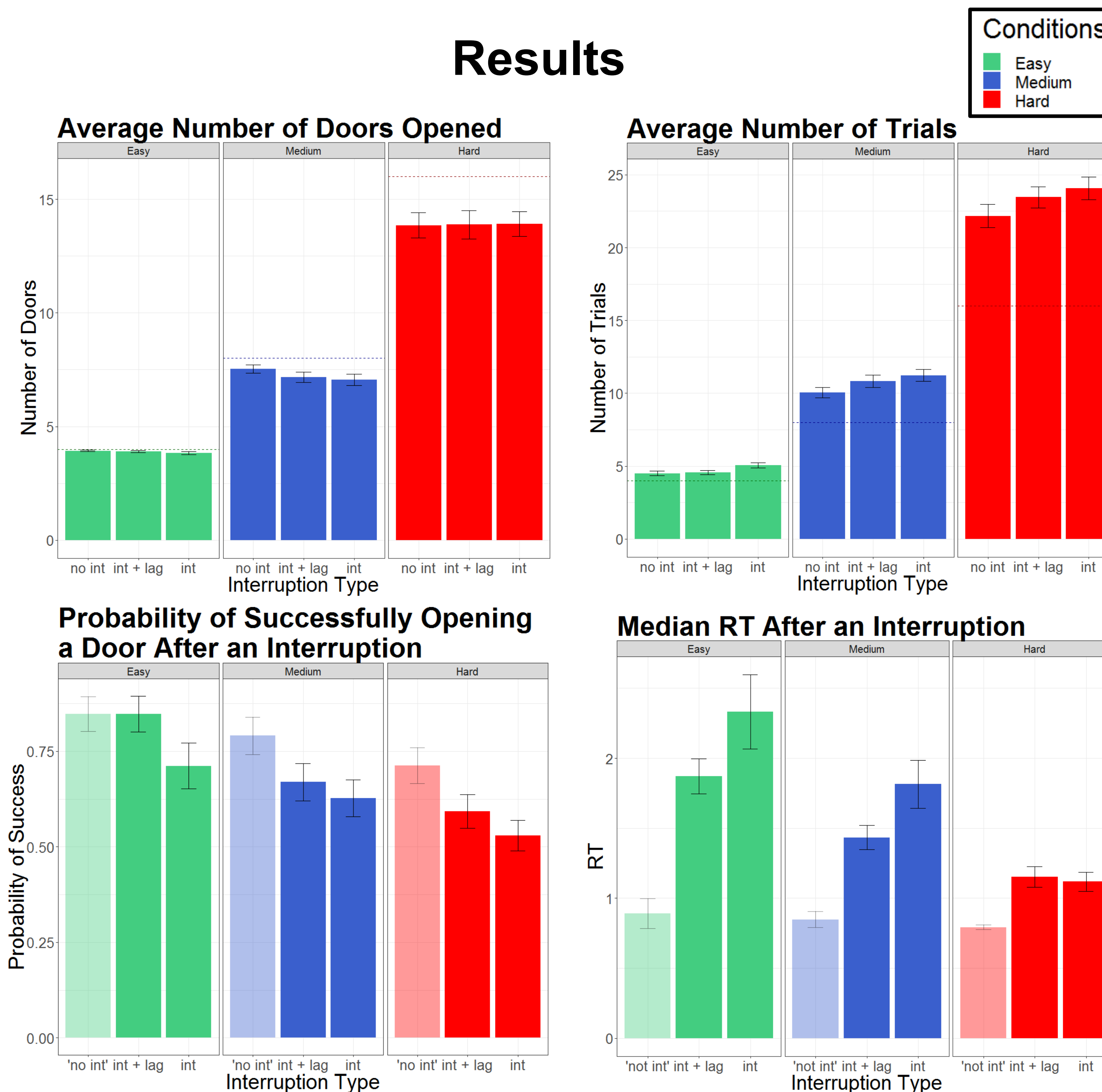
Methods

3 (difficulty: easy = 4 doors, medium = 8 doors, hard = 16 doors) x 3 (type of interruption: no interruption, interruption, and interruption + lag) fully within subject design (N = 59)

Design



Results

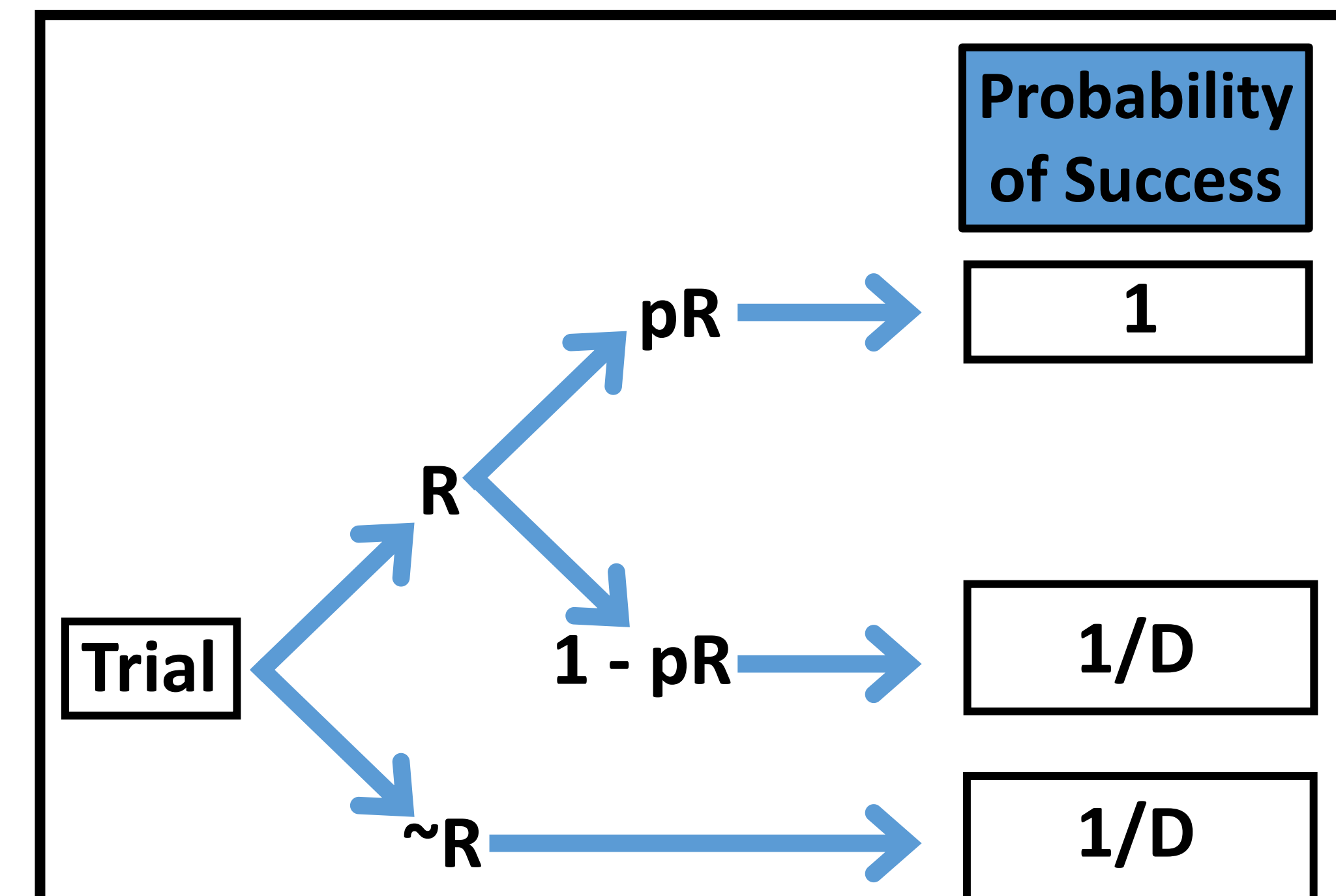


Discussion

Interruption lag does appear to have a positive effect on performance

- Completed task in fewer trials
- Fewer errors immediately following an interruption
- Shorter resumption lag

Modeling Framework



R = Think you remember your place in the Maze
pR = Actually remember your place in the Maze
D = number of doors in the condition (e.g. easy 1/4 = 0.25 probability of opening correct door)

References

- Borst, J. P., Taatgen, N. A., & van Rijn, H. (2015). What makes interruptions disruptive?: A process-model account of the effects of the problem state bottleneck on task interruption and resumption. In Proceedings of the 33rd annual acm conference on human factors in computing systems (pp. 2971–2980).
- Trafton, J., Altmann, E., Brock, D., & Mintz, F. (2003). Preparing to resume an interrupted task: effects of prospective goal encoding and retrospective rehearsal. *Int. J. Hum. Comput. Stud.*, 58(5), 583-603.