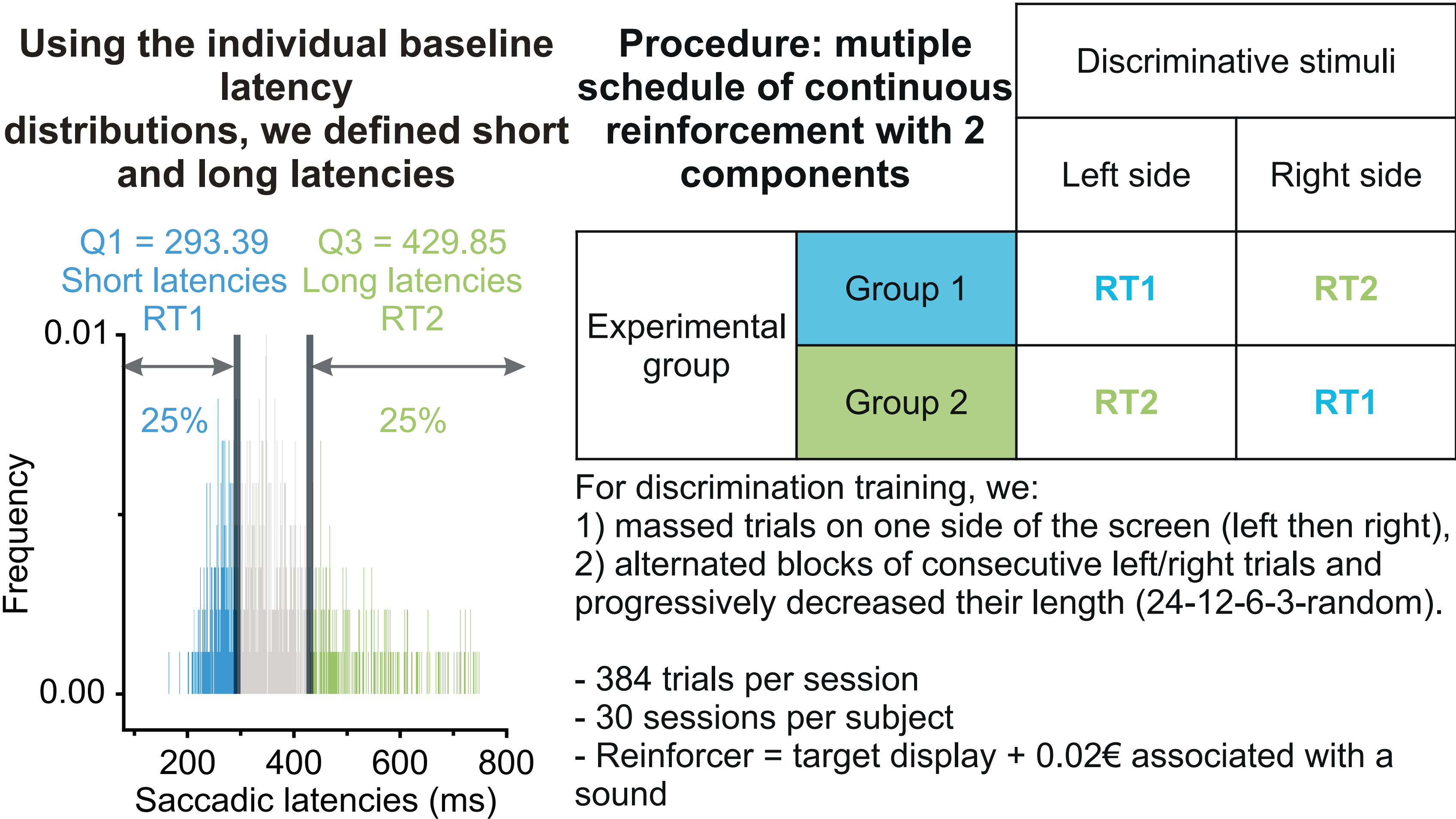
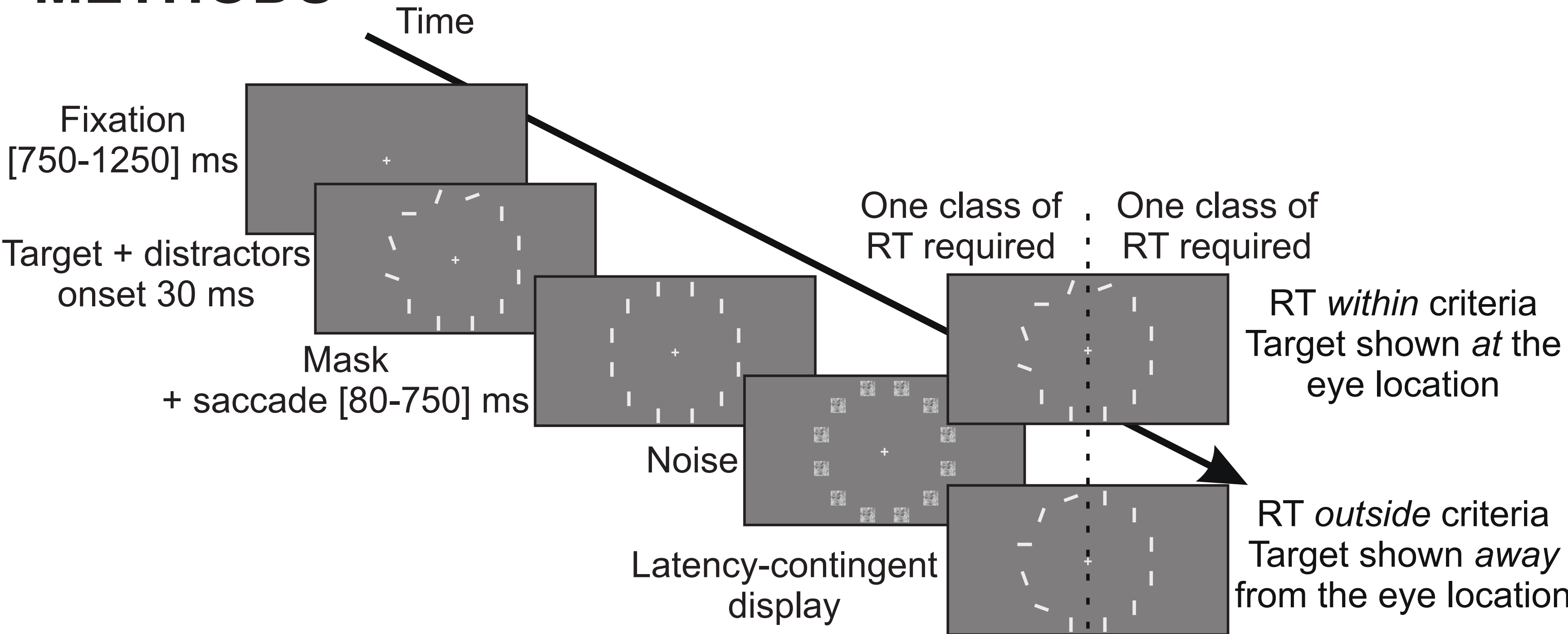


# INTRODUCTION

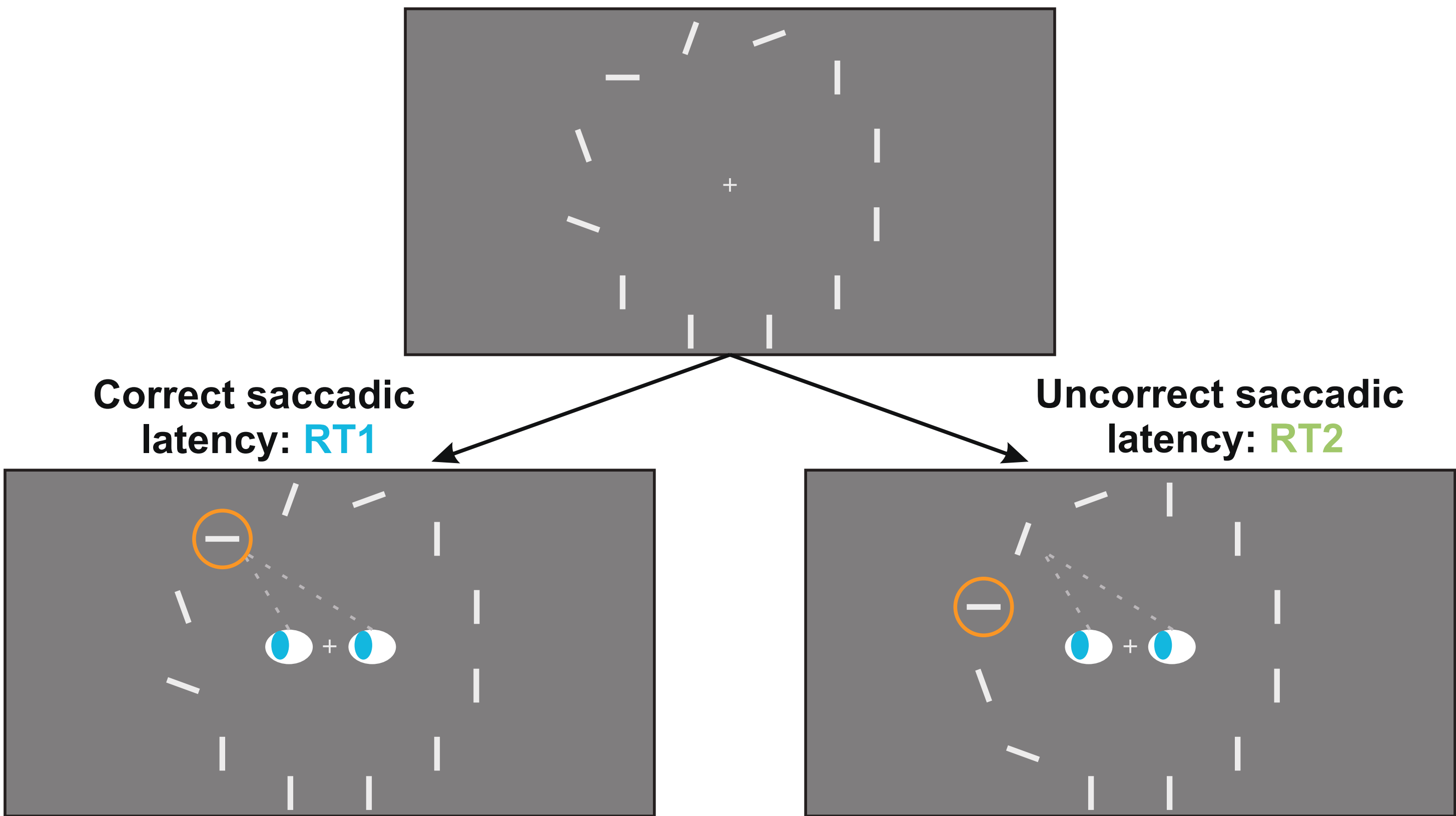
Saccadic eye movements may be regarded as an observing behavior mostly concerned with the spatial localization of information. However, recent studies have shown that they are also affected by the temporal regularities in dynamic environments (e.g. Hoppe & Rothkopf, 2016; Vullings & Madelain, 2016).

Here, we probe whether discriminative control of saccadic reaction times can be established using a latency-contingent visual display in a search task.

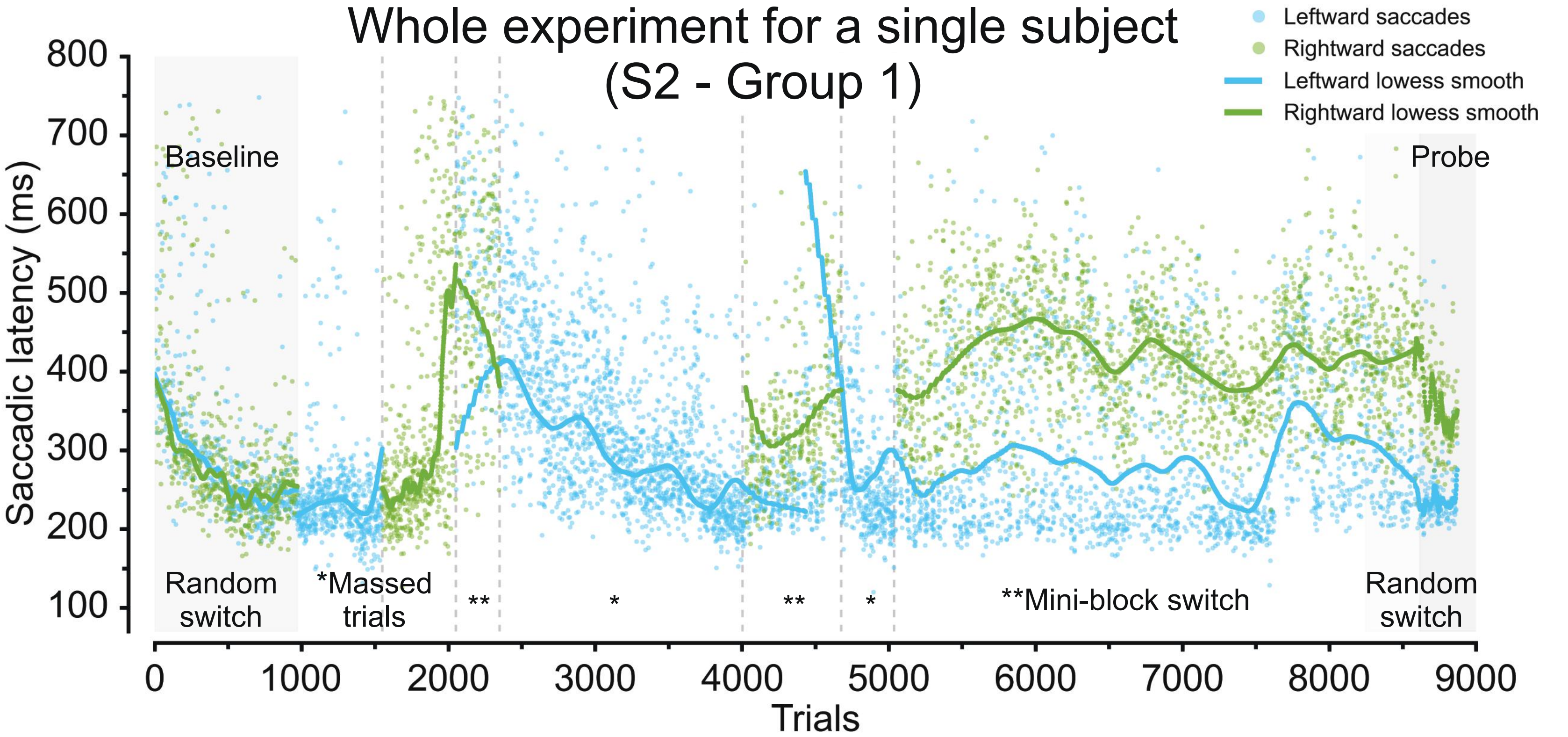
# METHODS



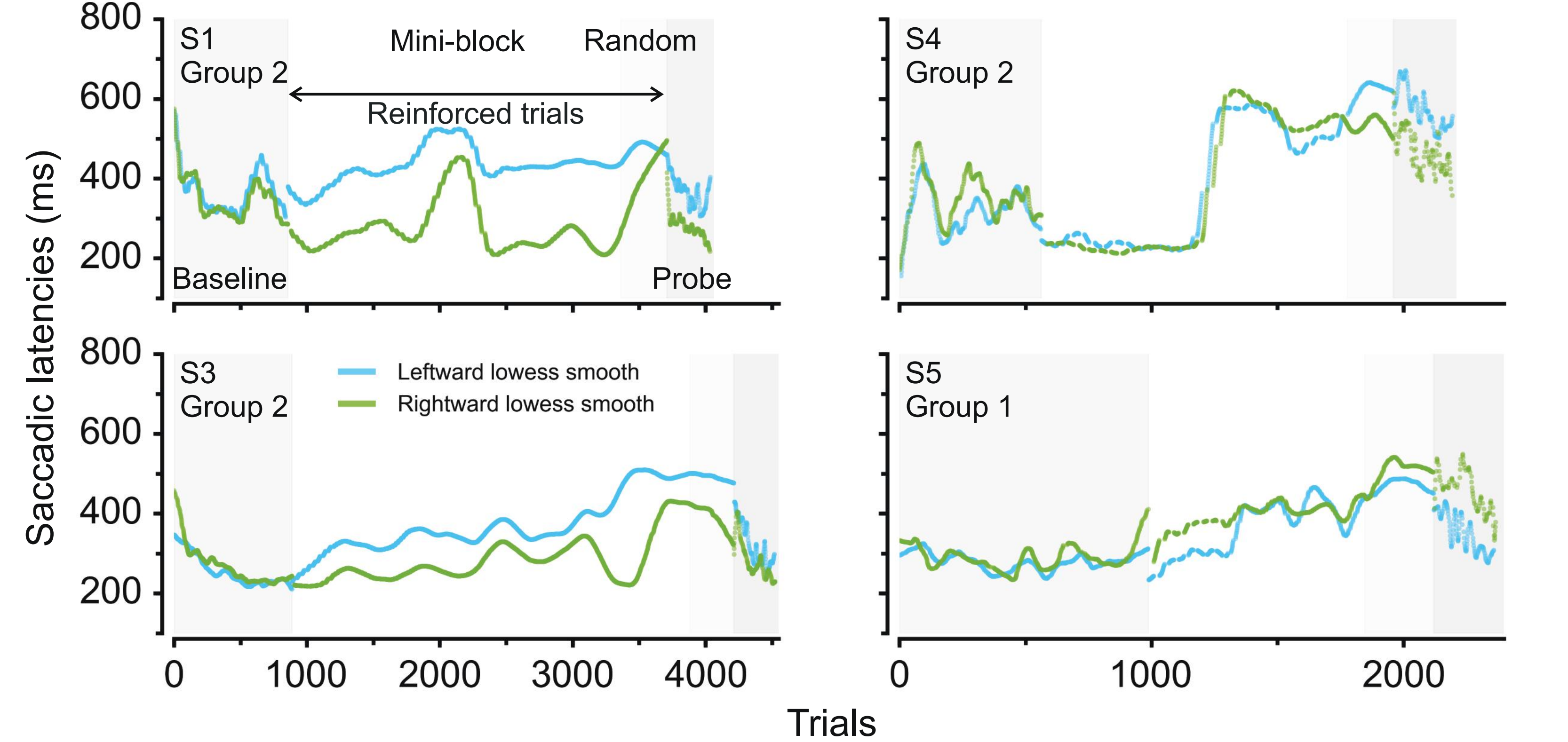
Instance of latency-contingent display for group 1



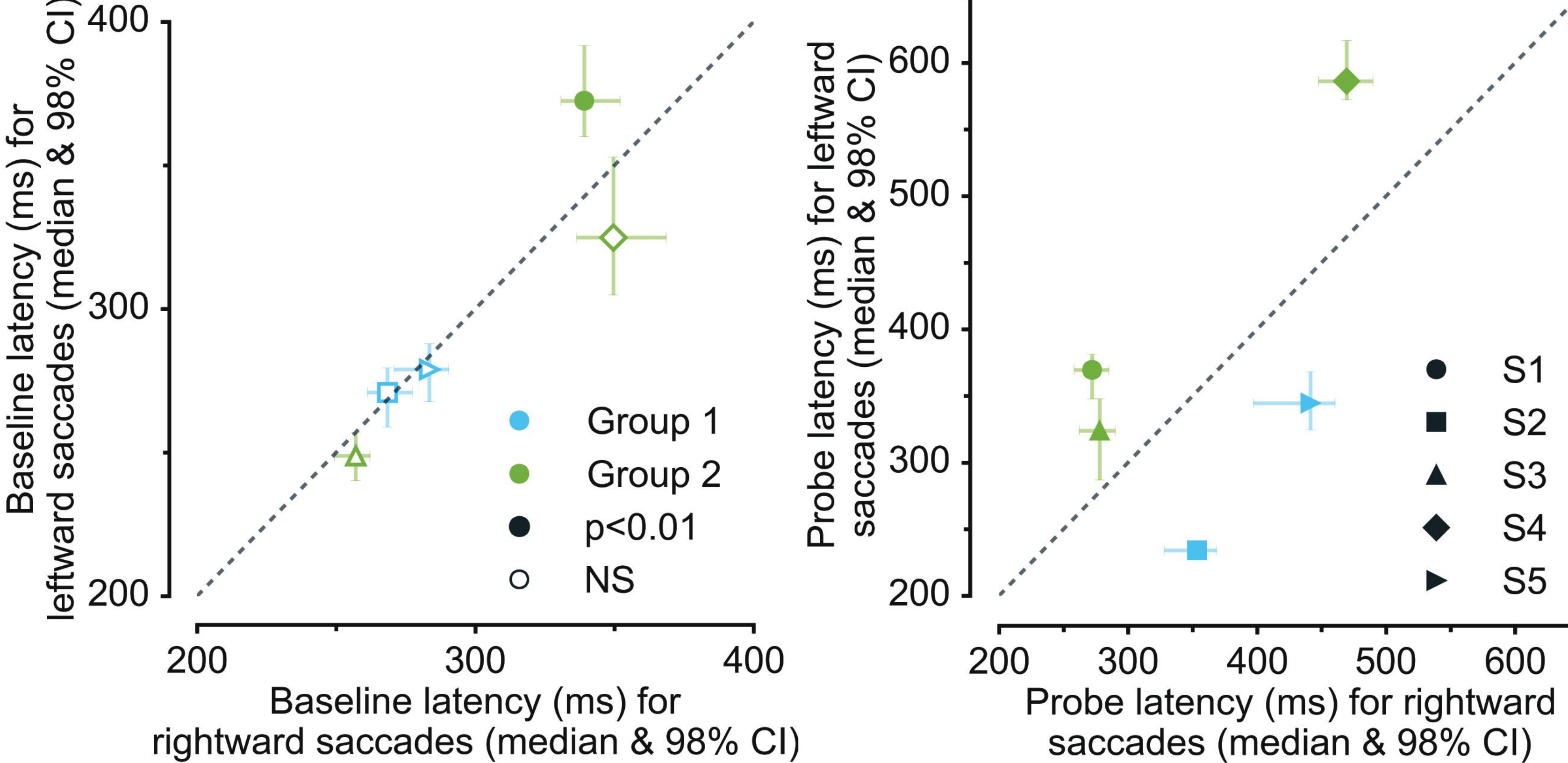
# RESULTS



Saccadic reaction times can be controlled by discriminative stimuli



Difference of 95 ms in latencies for leftward vs. rightward saccades



# CONCLUSION

- Saccadic latencies can be put under stimulus control, which further confirms the operant nature of saccades.
- Saccade triggering is finely controlled by learned temporal and spatial properties of the environment.

# REFERENCES

Hoppe & Rothkopf (2016). Learning rational temporal eye movement strategies. *PNAS*.

Vullings & Madelain (2016). Saccadic latency and choice in a concurrent random interval reinforcement schedule. *Journal of Vision*.

ANR grant ANR-13-APPR-008 and PhD grant from the French Ministry for Research