

# Does background speech interfere with visual search?

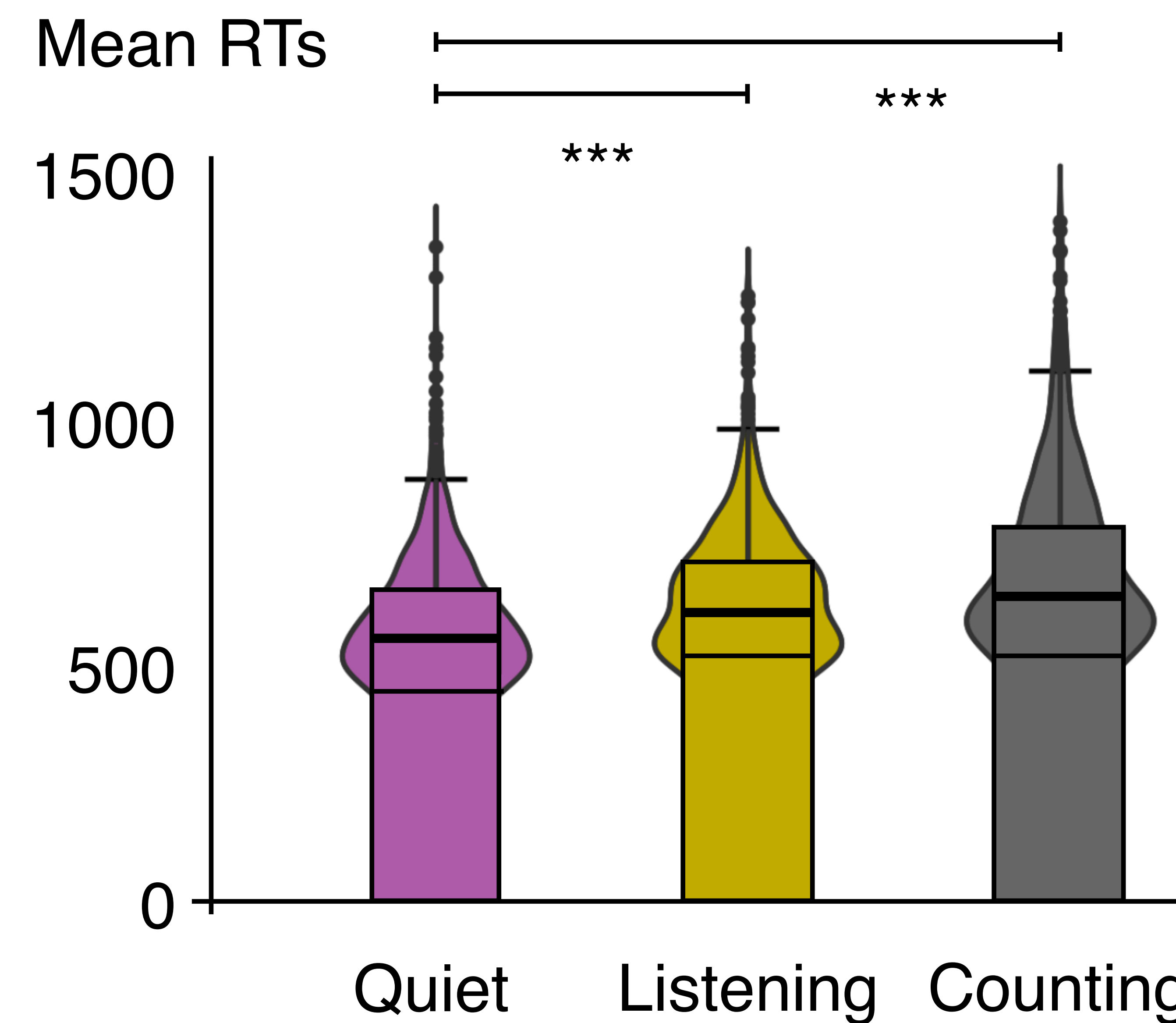
We used the Multi-Item LOcalization (MILO) task, in which participants clicked through items 1-8 in numerical order as quickly as possible while hearing auditory information through headphones to examine the effect of background sound on visual search.

DON'T  
TALK  
TO ME!

Relevant sound disrupts visual search,  
irrelevant sound does not.

## Experiment 1

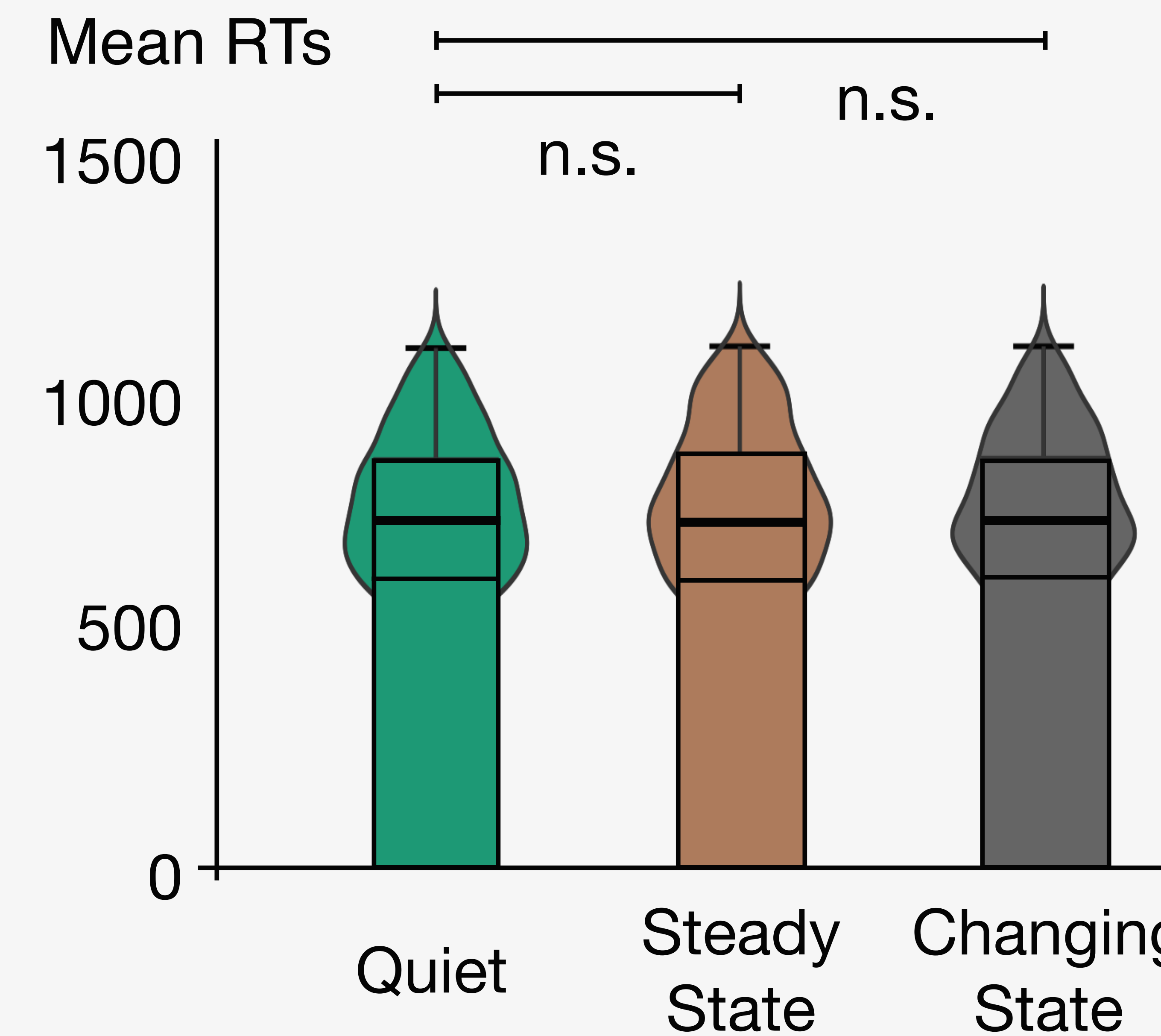
A **Quiet** condition was compared to a **Listening** condition (participants listened to news followed by a quiz) and a **Counting** condition (participants counted how many times a specific number was presented).



Listening to meaningful background sound interferes with MILO search speed.

## Experiment 2

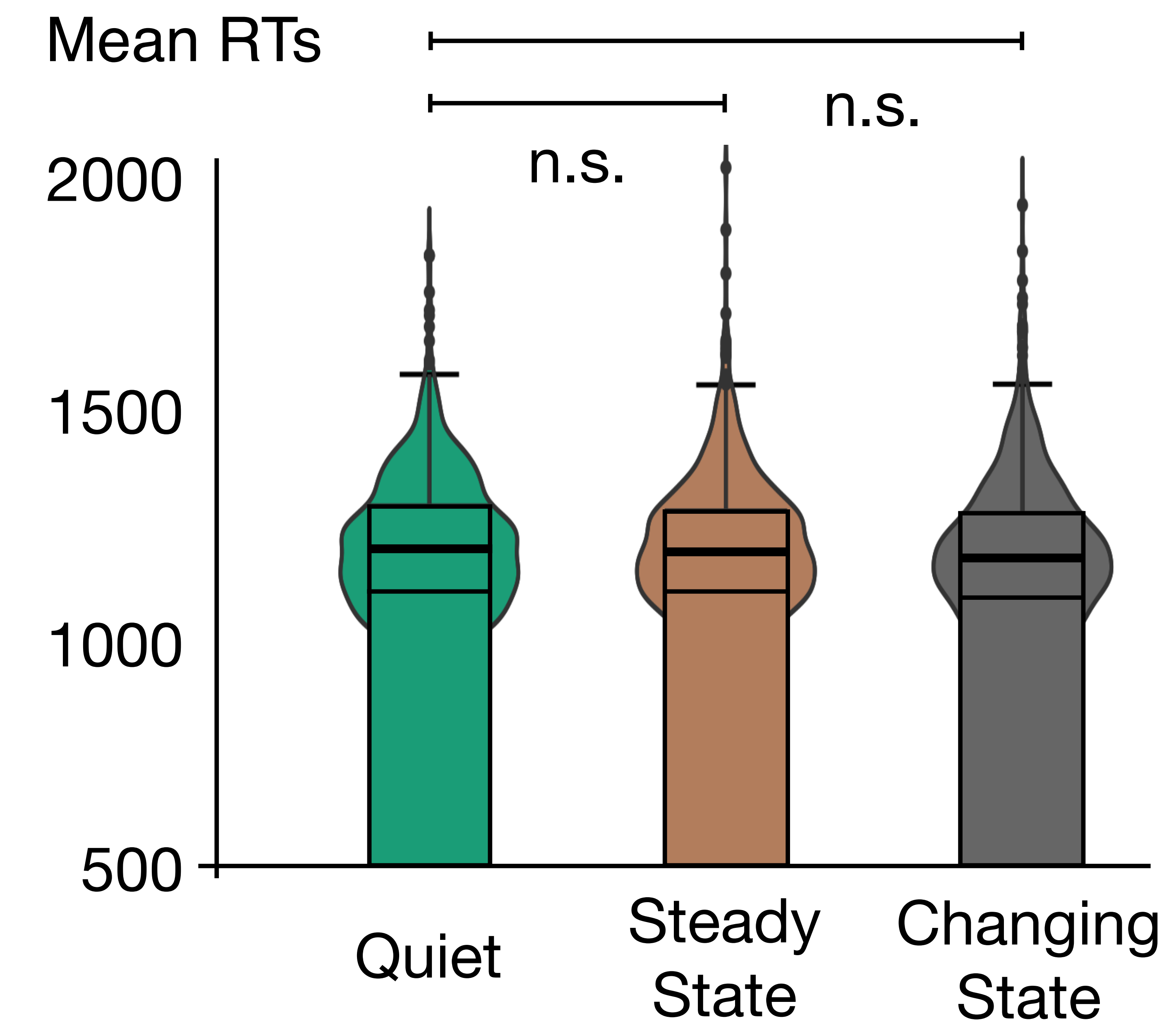
Meaningless words were presented that had previously been shown to disrupt visual-verbal working memory, either sequences of the same word (**Steady State**) or sequences of random words (**Changing State**).



Meaningless background sound does not interfere with MILO search speed.

## Experiment 3

Replication of Experiment 2 using a “shuffle” manipulation in which the subsequent items in a MILO sequence were randomly repositioned after each localizing response, increasing the difficulty of the search task.



Still no interference by meaningless background sound on MILO search speed.

The overall pattern of results suggests that visual search performance can be effectively shielded from auditory distraction, but only if we can choose to ignore the background speech and not if we actively listen to it.

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## MILO Task

