

INTRODUCING A NEW EYETRACKING TASK FOR SOCIAL COGNITION IN GENETIC FTD

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alzheimer nederland



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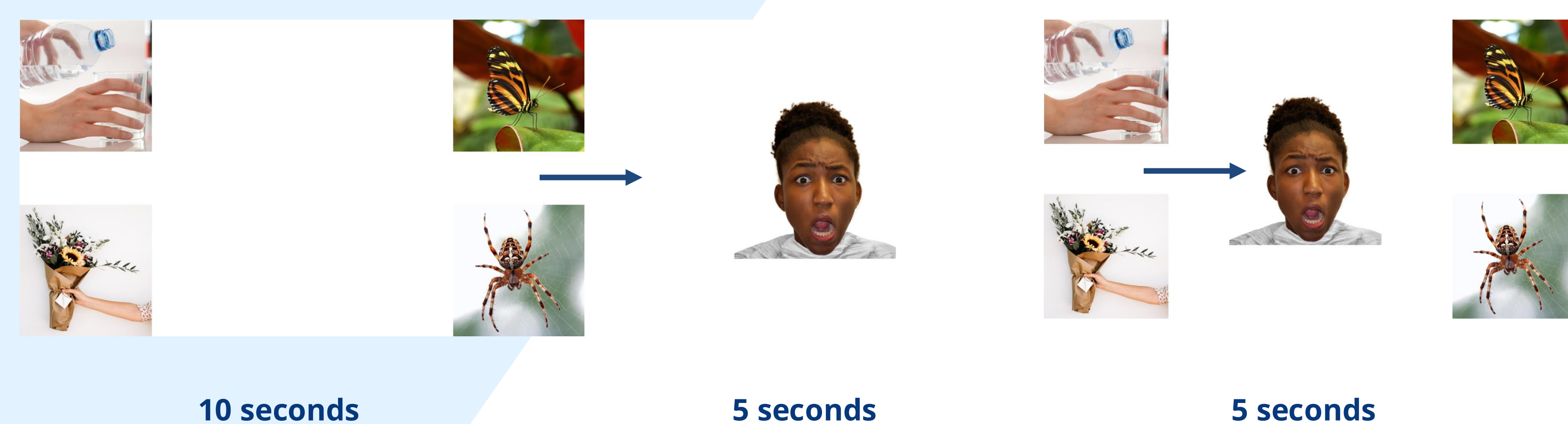
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INTRODUCTION

- **Social cognition** deficits are key features of **Frontotemporal Dementia (FTD)**.
- More cognitively demanding modalities of social cognition, such as establishing **emotional semantic associations**, have been less understood in FTD.
- Traditional pen-and-paper assessments may not detect early (presymptomatic) changes in these modalities due to **complexity** of instructions and ceiling effects.
- We propose using **eye tracking tests** to study emotional semantic associations, offering a sensitive, **instructionless** method to identify early social cognitive impairments.

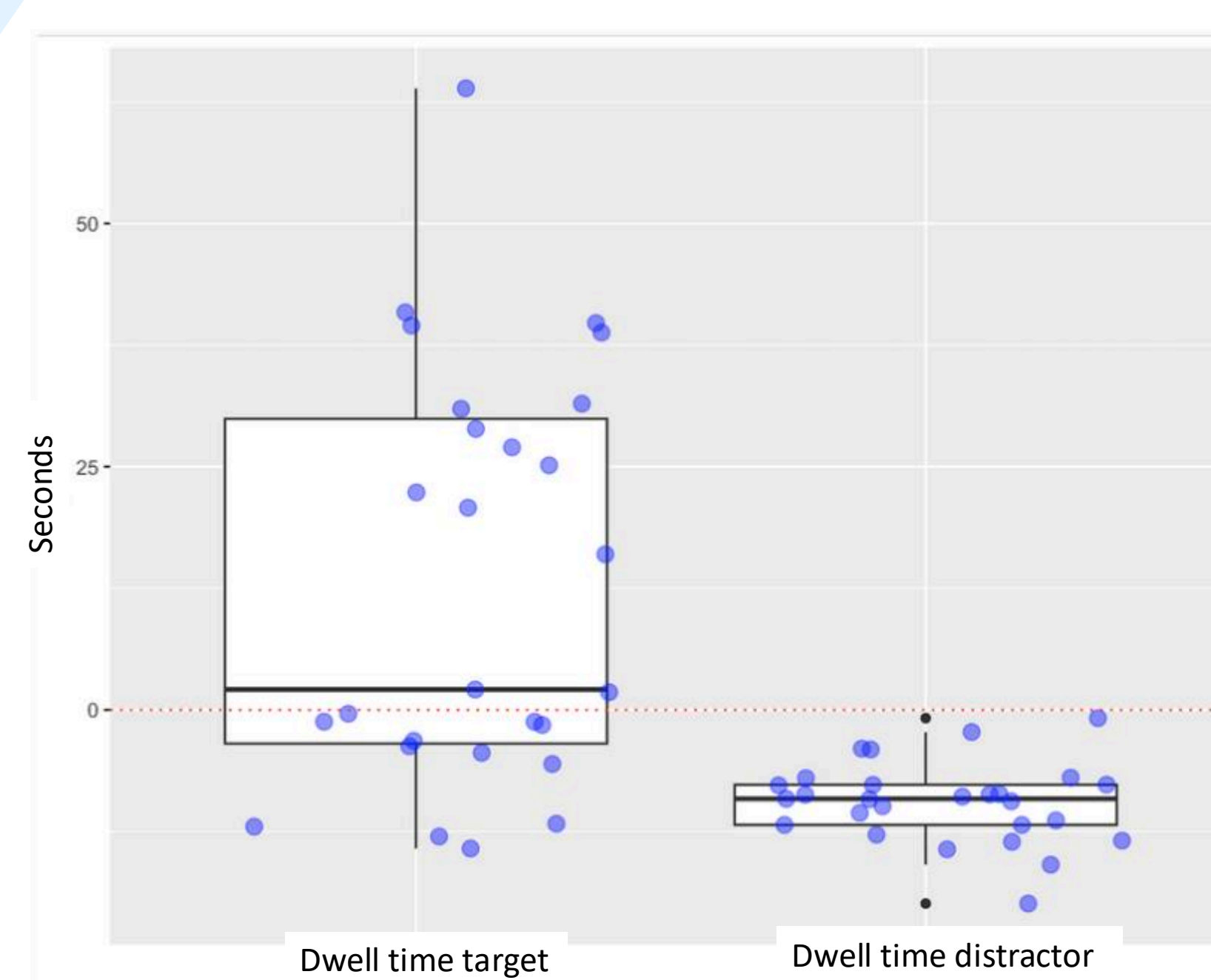
METHODS

- **Pen-and-paper test** ($n=61$) with 30 items to ensure test validity and to identify confusing items.
- Participants matched faces from different **ethnicities** and with different **facial expressions** with the target image (next to 3 distractor images).
- **Eyetracking** version (Tobii and EYELINK), requiring no instructions.
- Calculating **dwell time** > number of seconds spent per image
- 2 pilot studies ($n=27$, $n=15$)
 - Pilot study 1: 24 items
 - Pilot study 2: 24 items, 6 images were changed, emotional face presented for a longer period of time.

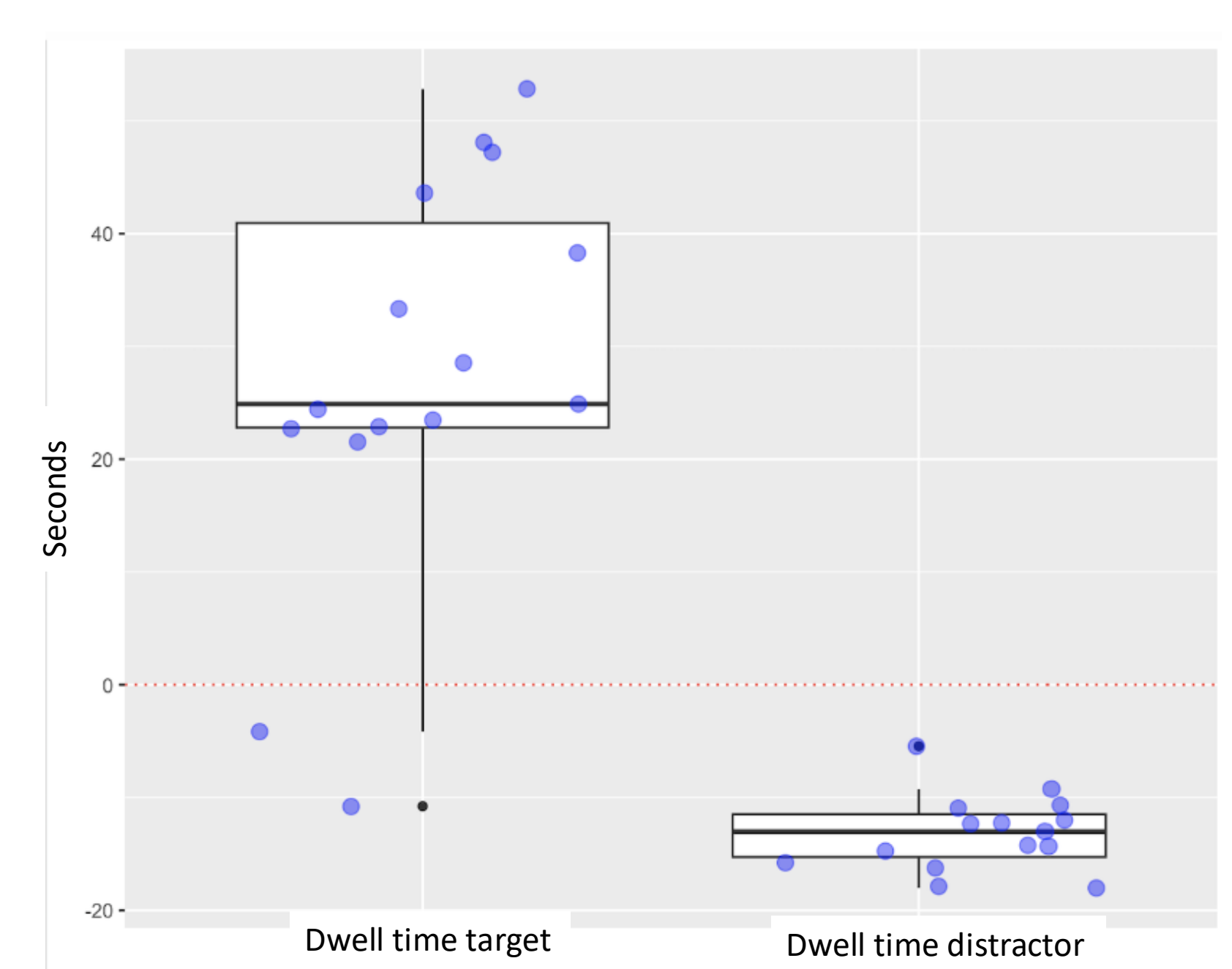


RESULTS

- Item analysis of the **pen-and-paper** version resulted in removing 6 confusing items, leaving a total of 24 items.
- **First pilot study**: higher dwell time in target image, but a lot of variation in performance.
- **Second pilot study**: higher dwell time in target image, less variability in performance.
- Current data collection in genetic FTD still ongoing.



Pilot 1 ($n=27$)



Pilot 2 ($n=15$)

DISCUSSION

- This test can contribute to the advancing field of social cognition research, taking into account **cultural factors**.
- The test is currently administered in controls, presymptomatic and symptomatic mutation carriers in the GENFI study cohort.



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