# p-013

# Thursday

## Social cognition in primary progressive aphasia

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**State of the art.** To investigate theory of mind (ToM) and its neural correlates in the semantic (svPPA) and non-fluent (nfvPPA) primary progressive aphasias in comparison with the behavioural variant of frontotemporal dementia (bvFTD).
**Methodology.** We recruited 12 svPPA, 12 nfvPPA and 29 age-, sex-, and education-matched bvFTD. Patients underwent neuropsychological assessment including the Story-based Empathy Task (SET), a non-verbal ToM test assessing abilities of intention (IA) and emotion (EA) attribution. Differences in SET global, IA, and EA raw scores, and distributions of pathological performances were compared across groups. Voxel-based morphometry (VBM) was used to perform multiple regressions between grey matter (GM) density and SET scores.
**Results.** Global, IA, and EA performances, as well as distribution of pathological scores, did not differ across groups, even when bvFTD were compared with PPA patients combined in a single group (N=24). VBM analyses revealed that both in bvFTD and PPA patients IA performance was positively associated with GM volume in mid-frontal and cingulate areas, while EA performance was positively correlated to GM density in temporal and orbitofrontal regions.
**Conclusions.** We observed no differences between bvFTD, svPPA, and nfvPPA in cognitive and affective ToM tasks. The association between SET performances and GM volume reflects the areas known to be involved in ToM tasks. These areas might be particularly vulnerable also in PPA patients, making them more prone to the development of social cognition deficits even from early stages.
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## Conflicts of interest

N/A