

Social norms recognition judgment in frontotemporal dementia and semantic variant of primary progressive aphasia

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Introduction: Altered knowledge of social norms has been suggested to contribute to changes in social behavior observed in patients with frontotemporal dementia (FTD) and semantic variant of primary progressive aphasia (svPPA) (Zahn et al. *Cortex* 2017; 93 107-118). The aim of this study is to assess the ability to recognize social norms, and its underlying cognitive mechanisms in FTD and svPPA.

Methodology: Eighteen FTD patients, 19 svPPA patients, and 30 matched controls performed a social norm recognition task consisting of 44 images, half of which depicted a person transgressing a norm. Three types of errors were calculated: 1) non-detection of a norm transgression, 2) misdetection i.e. detection of another rule than the common one, and 3) false alarm in a neutral situation. The ability to detect rules, semantic memory and theory of mind (ToM) were assessed.

Results: The number of each type of errors was significantly higher in both patients' groups compared to controls and did not differ between FTD and svPPA patients. We observed significant correlations between the number of errors and the ability to detect rules and the semantic memory. We also reported significant partial correlations between the TOM scores and the number of errors regarding the misdetections in the FTD group and the non-detections in the svPPA group.

Conclusion: We report comparable difficulties in recognizing social norms in both FTD and svPPA. Our results contribute to a better understanding of the mechanisms supporting the social rule recognition deficits that appear to differ in FTD and svPPA.

Conflicts of interest

None