

Personality structure in AD-like dementia and the link between personality and cognitive change

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- AD-like dementia is associated with a less differentiated personality structure, particularly affecting Emotionality.
- Personality de-differentiation appears specific to AD-like dementia rather than normal aging.
- Personality changes in AD but not in healthy aging are closely linked to cognitive decline across multiple domains.

INTRODUCTION

AD is associated not only with cognitive decline but also with **behavioral/personality changes** (Robins et al., 2011).

Personality structure changes in aging (Gobbo et al., 2025) and could be further altered in neurodegeneration.

No studies have directly examined **links between personality change and cognitive change**.

Aim: To test whether AD-like dementia is associated with (i) structural reorganization (de-differentiation) of HEXACO personality traits and (ii) co-occurring associations between perceived personality change and cognitive decline.

METHODS

Participants: informants of patients with AD-like dementia (n=207) and of cognitively healthy older adults (OA) (n=201)

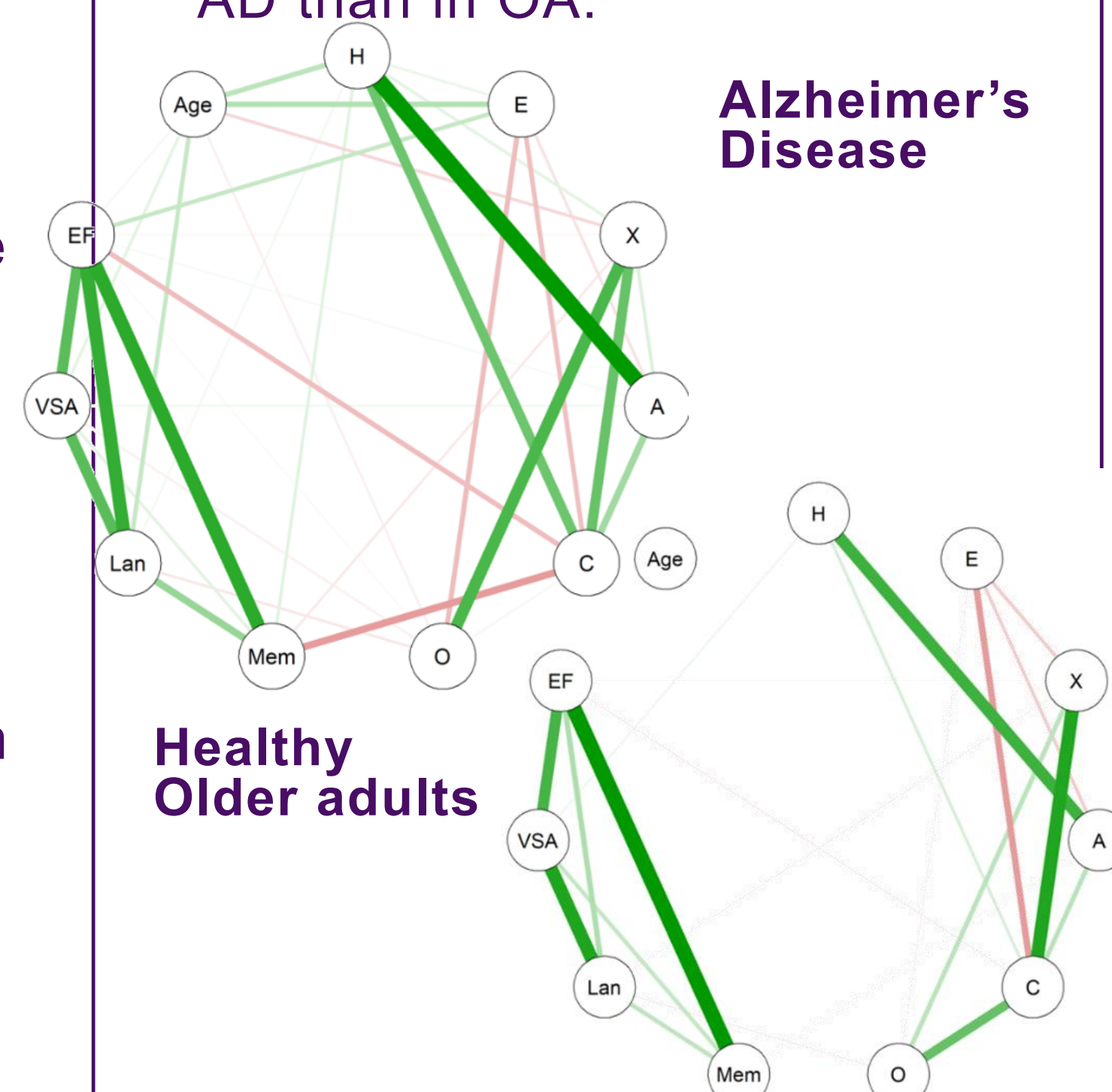
Materials: Informants completed

- HEXACO Adjective Scale (current personality)
- retrospective HEXACO change (personality change over the last 10 years)
- e-Cog (cognitive change across Memory, Language, Visuo-Spatial, Executive functions)

Analyses: Principal Component Analysis (PCA) on current HEXACO data; network analysis on personality-cognition change; group comparisons via Network Comparison Test.

RESULTS

- Personality is simplified in AD (but not in OA) losing Emotionality and presenting higher correlations
- Personality and cognitive changes are more associated in AD than in OA:



CONCLUSIONS

- AD-like dementia is associated with a simplified personality structure, with Emotionality no longer emerging as an independent factor, likely reflecting core AD symptoms such as apathy and depression.

This pattern parallels previously reported cognitive de-differentiation in neurodegeneration (Tosi et al., 2024)

- Personality and cognitive changes co-occur in a distributed, interrelated pattern compared to healthy older adults.

→ Relevance of including personality assessment in clinical and care settings for neurodegenerative disease.

REFERENCES

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