

Introduction

- Cognitive impairments are common in progressive supranuclear palsy (PSP) and corticobasal syndrome (CBS), however these symptoms are often overshadowed by the motor symptoms.
- Language impairment is a common early symptom in patients with PSP and CBS, therefore, language assessment may have significant utility in their differential diagnosis.
- Here, we present preliminary findings using the newly developed Mini Linguistic State Examination (MLSE) to examine the status of language in patients with PSP and CBS.

Methods

- 30 patients (10 PSP, 9 CBS, 11 nonfluent/agrammatic variant primary progressive aphasia: nvPPA), and 30 healthy volunteers completed the MLSE, a language assessment tool featuring tasks which cover the range of domains affected in progressive aphasia (e.g. naming, word/ sentence comprehension, semantic association, repetition, reading, and writing).

Results I – Movement disorder group vs nvPPA and controls

- The movement disorder group were significantly impaired on tasks of nonword repetition, sentence comprehension, reading of regular and irregular words, and sentence repetition compared to controls.
- nvPPA patients were significantly impaired on tasks of naming, word and nonword repetition, word comprehension, sentence comprehension, and sentence repetition compared to the movement disorder group.

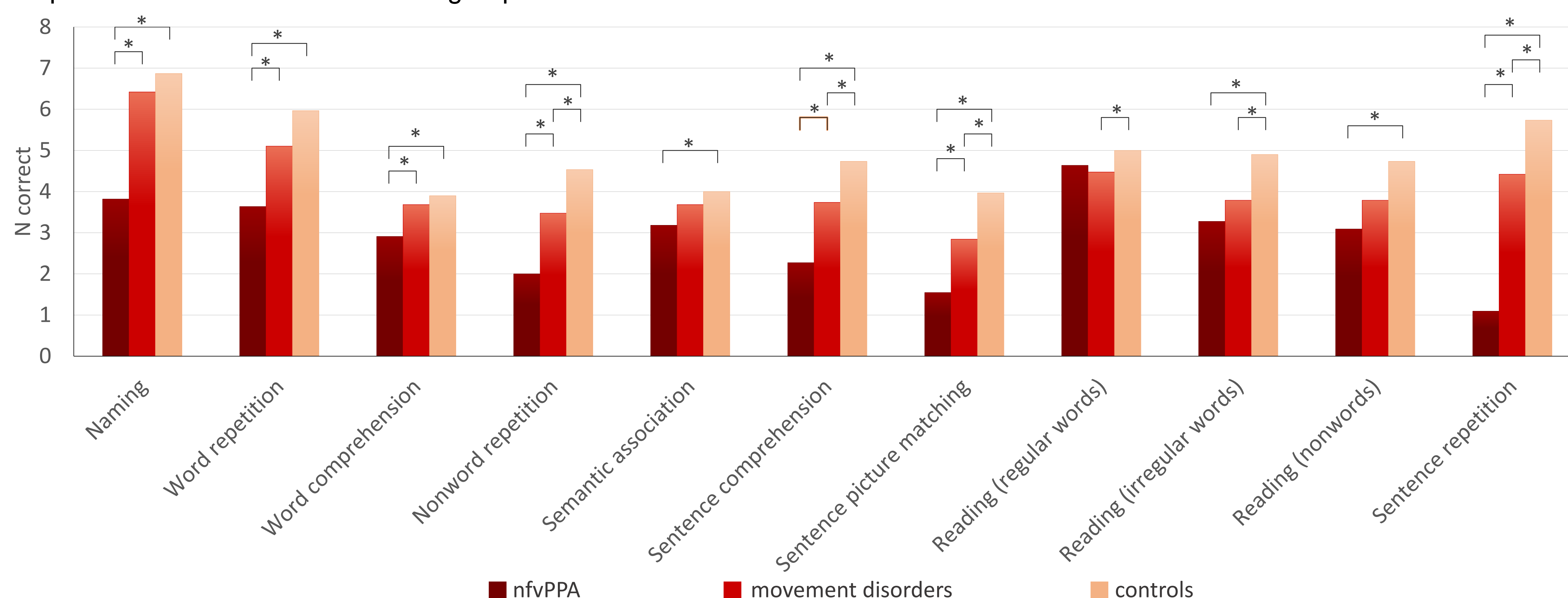


Figure 1. Group differences between movement disorder patients, nonfluent/agrammatic variant primary progressive aphasia (nvPPA) patients, and healthy controls on subtests of the Mini Linguistic State Examination (MLSE)
 Scores are mean number of correct items per subtest. Group differences were examined using one-way ANOVAs. Post hoc comparisons were conducted using the Tukey test.

Results II - Comparison of PSP and CBS patients

- Overall performance:** PSP patients were significantly impaired on reading of regular words (mean score = 4, SD = 1.33) compared to CBS patients (mean score = 5, SD = 0.00; $p = 0.038$). There were **no other** significant differences between PSP and CBS patients on MLSE subtests.
- Error types across groups for naming and reading:** our preliminary investigation suggests that the two movement disorder groups differ significantly in the nature of their errors on linguistic tasks.

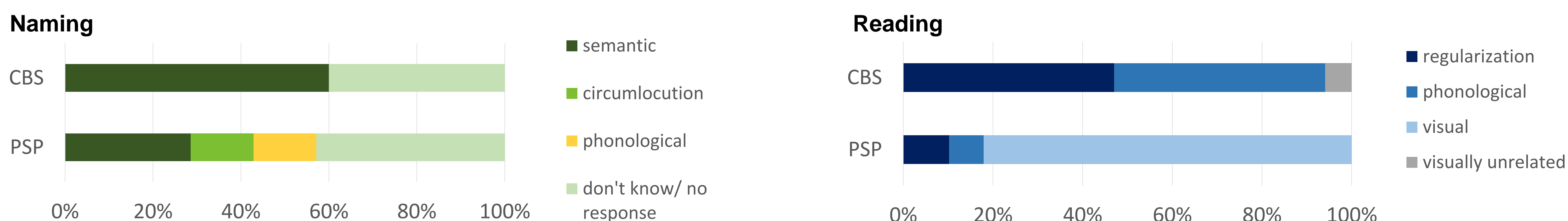


Figure 2. Proportion of error types made by PSP and CBS patients (total across group) on naming and reading subtests of the MLSE
 Total errors: naming = 5 (CBS) and 7 (PSP); reading = 17 (CBS) and 39 (PSP)

Conclusion

- Although PSP and CBS patients may both show mild impairments on language tasks, there is little evidence that overall language scores will help to differentiate these two disorders.
- By contrast, analysis of error types may aid the differential diagnosis of PSP and CBS.

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