



Tense and aspect in aphasia and semantic dementia

Vasiliki Koukouloti^{1*} and Stavroula Stavrakaki²

¹ Goethe University Frankfurt/Main, Institut für Linguistik, Germany

² Aristotle University of Thessaloniki, Greece

Impairment in past tense production as well as interaction between tense and aspect have been found in both fluent and non-fluent aphasia (e.g. Dragoy & Bastiaanse, 2013). Inflection has been found to be relatively preserved in semantic dementia (SD) (Thompson et al., 2012).

The aims of the present study are a) to compare the morphosyntactic abilities of patients with aphasia and SD in tense and aspect marking and b) to explore the interaction of lexical (+/- telic) and grammatical (perfective/imperfective) aspect in aphasia and SD. A sentence completion task was administered to 30 native speakers of Greek: 10 patients with aphasia (6 anomic, 2 Wernicke and 2 agrammatic), 10 age and education-matched controls, 5 patients with SD and 5 controls. The material consisted of unergative, unaccusative and transitive verbs (12 of each verb class) and the participants had to apply present (imperfective) and past (perfective) tense. Unergative and unaccusative verbs differ in terms of their aspectual properties with the unergative being [-telic], and unaccusative [+telic]. Transitive verbs vary. A principal distinction between the tested conditions was the standard unmarked combination ([+telic] verbs in past perfective and [-telic] verbs in present imperfective) vs. the marked one ([+telic] verbs in present imperfective and [-telic] in past perfective).

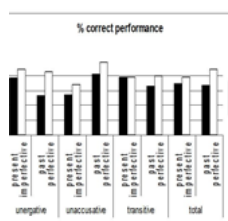
Both control groups performed at ceiling in all conditions. Aphasic participants were significantly more impaired than the control group in all conditions. SD participants were significantly more impaired than the controls only in the production of present tense (M-W U= 1.5, p= 0.024).

There was no difference between past perfective and present imperfective for neither group, but there was an interaction between verb class and tense for the aphasic participants, as performance in unaccusative verbs in past perfective (unmarked condition) was significantly better than in unergatives in past perfective (marked condition) ($Z=2.512$, $p=0.012$) but performance in unaccusatives in present imperfective (marked condition) was significantly worse than performance in unergatives in present imperfective (unmarked condition) ($Z=2.680$, $p=0.004$). In sum, aphasic participants performed significantly better in the unmarked than in the marked conditions. Such an interaction was not found for the SD group.

Aphasic participants performed significantly worse than the SD subjects in past perfective tense (M-W U= 7.5, $p=0.029$) in total, and the difference was significant only for unaccusative verbs (M-W U= 6.5, $p=0.021$), although both groups performed very well in this condition. There was no difference in present, neither for each verb class separately nor for the total score.

A general past tense deficit cannot be upheld for either group. Rather, SD participants appear relatively impaired in producing present tense. We argue for slight morphosyntactic impairment in SD, although with a different underlying cause than in aphasia. Moreover, our data suggest an effect of aspectual markedness in aphasia but not in SD. We discuss this finding in the light of the different neuropathology of the two populations.

Figure 1



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References

- Dragoy, O., & Bastiaanse, R. (2013). Aspects of time: Time reference and aspect production in Russian aphasic speakers. *Journal of Neurolinguistics*, 26(1), 113–128. doi:10.1016/j.jneuroling.2012.05.003
- Thompson, C. K., Cho, S., Hsu, C.-J., Wieneke, C., Rademaker, A., Weitner, B. B., ... (2012). Dissociations between fluency and agrammatism in primary progressive aphasia. *Aphasiology*, 26(1), 20–43. doi:10.1080/02687038.2011.584691

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* **Correspondence:** Dr. Vasiliki Koukouloti, Goethe University Frankfurt/Main, Institut für Linguistik, Frankfurt am Main, D-60629, Germany, vasiliki.koukouloti@gmail.com

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