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Jaargang 23, Supplement 1, september 2018

Stem-, Spraak- en Taalpathologie

19th International Science of Aphasia Conference - Venice

Wednesday, September 19, 2018

09.15 Invited talks1

13.30 Contributed Papers I 1

15.30 PosterSession I 19

Thursday, September 20, 2018

09.00 Invited talks2

11.30 PosterSession II 58

Friday, September 21, 2018

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Saturday, September 22, 2018

09.30 Invited talks

11.00 Workshops

Morphological Decomposition in Primary Progressive Aphasia: Evidence from Greek

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Introduction

Morphological structure has been extensively studied in research on word recognition across many languages (Tsapkini et al., 2014; Wilson et al., 2014, Auclair-Ouellet et al., 2016). The main focus of those studies has been to comprehend the role of morphological decomposition in lexical access (Tsapkini, Jarema, & DiSciullo, 2004) and representation in the mental lexicon of people. This aim extended over the years to conditions such as Broca's aphasia (Peristeri & Tsapkini, 2011) and Primary Progressive Aphasia (PPA). Research on the latter is, however, scarce and for that reason, the present study investigates morphological decomposition in Greek-speaking patients with non-fluent/agrammatic PPA.

Methods

Participants

Ten Greek-speaking patients with non-fluent variant PPA participated in the study (mean age: 63;4 yrs., Standard Deviation (SD): 6.2), along with 11 age- and education-matched language unimpaired controls.

Task

The patients were administered a Lexical Decision Task that included high- and low-frequency prefixed (e.g. tri_{PREFIX}-klinostem / 'three-bed room') and simple words. Both reaction times and accuracy were recorded through E-prime.

Results

RTs analyses indicate a slower performance of the PPA group, verified by a Crawford Singlims test, with higher RTs for both groups for the prefixed words. A repeated measures ANOVA with group as the between-subjects factor indicated a morphological deficit for the PPA participants ($p = .001$). A second ANOVA with the data split by groups verified the deficit for the PPA group and presented a high significance of both factors, namely word type ($p = .000$) and frequency ($p = .000$), as well as word type by frequency ($p = .000$), for the control group leading to a Paired sample T-test. Its results showed high significance of word frequency (HF, $p = .006$, LF, $p = .001$) for the PPA group and high significance both of frequency ($p = .000$) and word type by frequency ($p = .000$) for the control group. Overall, the PPA group indicated a morphological deficit in word recognition as an effect of word frequency.

Discussion

The present study's results indicate an overall normal performance for the control group, while the PPA participants present with an expected slower performance both on prefixed words in general and in simple words of lower frequency.

The recognition latencies can be accounted for by means of a left-to-right parsing orientation theory (Colé, Beauvillain, and Segui, 1989) that supports whole-word lexical representation and access in the mental lexicon. It also claims that morphological information plays no important role, but rather it is the full-form surface frequency that provides access to the complex word. This theory contrasts Taft and Forster's (1975) affix stripping model of morphological decomposition. It also presents contrasting claims to Tsapkini et al. (2014) and Laudanna, Burani, and Cermele (1994), in that it supports recognition latencies of prefixed words as a consequence of their surface frequency, while the before-mentioned studies present results in favour of quicker recognition of prefixed words due to their full-form access. A more practical account of why prefixed HF items that are considered to require lower RTs for their recognition present such high RTs for the PPA group in the present study, is the one provided by Schriefers, Zwitserlood, and Roelofs (1991) and by Tsapkini, Jarema, and DiSciullo (2004) that support a priority of importance for affixal over stem properties. More specifically, Schriefers, Zwitserlood, and Roelofs (1991) postulate that although complex words are processed in a left-to-right orientation, it seems that they are identified with respect to the specific properties assigned to their constituent elements. Tsapkini, Jarema, and DiSciullo (2004) delve further in the particular properties of affixes and present the configurational asymmetry of prefixes, namely whether they are internal or external to the verb, as the main influencing factor for either the full-form accessing or the decomposition of prefixed words. Thus, configurational asymmetry is reflected on RTs and is an influencing factor for lexical access.

This finding could account for the recognition latencies presented by the Greek-speaking nfvPPA patients, however further research would be required in order to differentiate between externally and internally prefixed stimuli employed in the study. Moreover, further research is required as regards the mean accuracy levels of the PPA participants in order to specify whether there are particular items that account for the recognition latencies of this group.

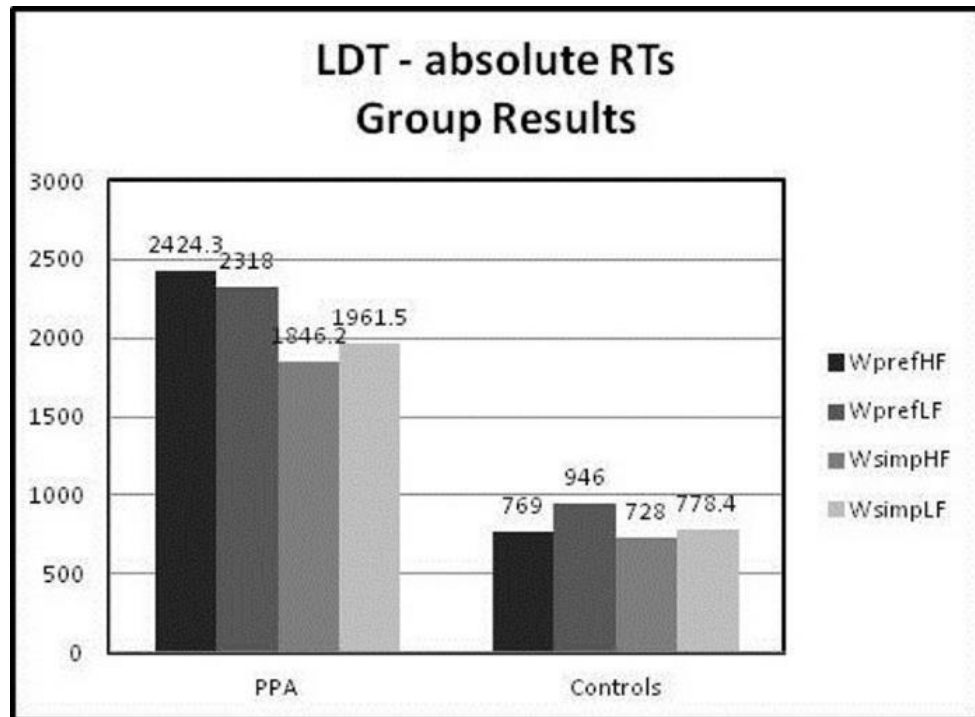


Table 1. Reaction times (RTs) per condition per group.

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Poster session 2

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