EVENT ABSTRACT

Production of subject-verb agreement, tense, mood, and negation in Italian agrammatic aphasia.

Valantis Fyndanis[1*], Carlo Semenza[2, 3], Rita Capasso[4], Marialuisa Gandolfi[5], Serena De Pellegrin[2], Giorgio Arcara[2], Francesca Burgio[2, 3], Anna Maculan[2], Nicola Smania[5] and Gabriele Miceli[6]

[1] University of Potsdam, Germany, Germany
[2] University of Padua, Italy
[3] IRCCS S Camillo, Italy
[4] SCA Associates, Italy
[5] University of Verona, Italy
[6] University of Trento, Italy

Impaired (morpho)syntactic production is the hallmark of agrammatic aphasia. Several hypotheses have been proposed to account for agrammatic production, which often make different predictions. The Distributed Morphology Hypothesis (DMH) (Wang et al., 2014) posits that categories involving inflectional alternations are impaired in agrammatism. The Tense Underspecification Hypothesis (TUH) (Wenzlaff & Clahsen, 2004, 2005) states that what is impaired ("underspecified") is tense; subject-verb agreement and mood are well-preserved. The Interpretable Features' Impairment Hypothesis (IFIH) (Fyndanis et al., 2012) predicts categories involving integration processes (e.g., tense, mood, negation) to be more impaired than categories that do not involve integration processes (e.g., agreement). The Tree Pruning Hypothesis (TPH) (Friedmann & Grodzinsky, 1997) states that the syntactic tree is pruned at a specific node, usually tense, with all nodes/categories above the pruning site deleted/inaccessible and all nodes below intact. To reliably test these accounts, one should test agrammatic speakers on a wide range of (morpho)syntactic phenomena/categories. In this study, we investigate the ability of Italian-speaking agrammatic individuals to produce subject-verb agreement, tense, mood, and sentential negation.

A sentence completion task (SCT) tapping agreement and tense, a SCT assessing mood, and a constituent ordering task tapping negation were administered to eight native speakers of Italian with chronic agrammatic aphasia and eight controls.

Results are presented in Table 1. The control group performed better than the aphasic group on all four conditions. Both groups showed similar patterns of performance, with better performance on agreement and tense than on mood. Negation was better preserved than agreement, tense, and mood in the aphasic group, but in the control group negation was not different from any other category. At the individual level, five agrammatic participants exhibited the same pattern of performance (agreement/tense /negation>mood).

At the group level, the results of the agrammatic participants are not consistent with any of the hypotheses discussed here. Contrary to the TUH, participants performed better on tense than on mood. The DMH cannot explain the observed, selective impairment of categories involving inflectional alternations (tense/agreement>mood). Results do not support the TPH, as the higher the category in the syntactic hierarchy (Neg>T(future/past)>M) (Cinque, 1999; Zanuttini, 2001), the better the performance of agrammatic participants. Lastly, results are at odds with the IFIH, because negation (+integration processes) is better preserved than agreement (-integration processes). Analogous results are observed at the individual level.

None of the available hypotheses can account for the patterns of performance of all the agrammatic participants. Their results, together with the production results of other agrammatic speakers in the literature, show that all possible patterns can be observed in agrammatism, and that a unitary account of the disorder is unlikely to succeed. We suggest that subject-specific characteristics (e.g., site/type/volume of brain damage, type/severity of language impairment, education, age) and language-specific properties of functional categories (e.g., syntactic hierarchy, interpretability/involvement of integration processes, frequency) may interact in determining the way in which (morpho)syntactic impairments manifest themselves across agrammatic speakers and languages.

Figure 1

Acknowledgements

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