

Academy of Aphasia 2012

## A-/A'-bar Movement in Agrammatic Comprehension in Turkish

Mavis I.<sup>a,\*</sup>, Aydın Ö.<sup>b</sup>

<sup>a</sup> Anadolu University

<sup>b</sup> Ankara University

### Introduction

The primary aim of this study is to present experimental data on the comprehension of structures involving A-/A'-movement (argument/non-argument) in non-fluent agrammatic speakers (Thompson et al., 1997). Turkish, basically with SOV order(1), is also a scrambling language allowing morphologically case-marked elements to occur freely in both pre-verbal (2) and post-verbal positions (3 & 4). These properties make (2) as an example of A-movement and (3 & 4) as an example of A'-movement, both of which become a good test case to find whether or not A-movement is easier for agrammatics than A'-movement in comprehension.

- (1) adam kadın-ı sev-iyor SOV  
man woman-acc love-pres.3s  
'the man loves the woman'
- (2) kadın-ı<sub>i</sub> adam<sub>i</sub> sev-iyor OSV
- (3) t<sub>i</sub> kadın-ı sev-iyor adam<sub>i</sub> OVS
- (4) adam t<sub>i</sub> sev-iyor kadın-ı<sub>i</sub> SVO

This paradigm also lets us test Mapping Deficit Hypothesis (MDH), which claims that the agrammatic speakers assign the agent theta role to the first DP in the sentence, Trace Deletion Hypothesis (TDH) which suggests that traces are lost in the agrammatic representation, and Derived Order Problem Hypothesis (DOP-H) that predicts more problems in sentences where the constituents are in derived order than in sentences in which the constituents are in their base position. DOP-H predicts that (1) will be easier than (2 - 3 & 4), while both MDH and TDH predict that the agrammatic Turkish speakers have more difficulties comprehending sentences in theme-agent order (2 & 3) than sentences in which the agent precedes the theme (1 & 4).

### Subjects

The participants were 15 speakers of Turkish with aphasia and their spouses, almost matched with age. Their language performance was assessed by ADD (Maviş & Toğram, 2009).

### Methods

\* Corresponding author. Tel.: 0 90 222 3352337.  
E-mail address: [imavis@anadolu.edu.tr](mailto:imavis@anadolu.edu.tr)

8 scrambled sentence types, designed for both ‘agents’, with 10 semantically reversible verbs (love, beat, chase, bite, embrace, push, hit, kill, look, slap) constituted 80 test sentences tested by a forced choice picture matching task (Figure 1). The sentences, orally presented by the experimenter, were repeated only once on demand. The patient was expected to point to the correct picture.

Figure 1 A sample picture of the test used



## Results

The test was piloted on 6 participants of aphasia in which the agrammatics tended to make comprehension errors mostly on post verbal scrambling sentences.

## References

Bastiaanse, R., & Van Zonneveld, R. (2005). Sentence production with verbs of alternating transitivity in Broca's agrammatic aphasia, *Journal of Neurolinguistics*, 18, 57–66.

Grodzinsky, Y. (1995) A restrictive theory of trace deletion in agrammatism. *Brain and Language*, 50, 27–51.

Maviş, İ & Toğram, B (2009). *Language Assessment Test for Aphasia (ADD)*. Detay Yayınevi, Ankara.

Schwartz, M. F., Linebarger, M. C., Saffran, E. M., & Pate, D. S. (1987). Syntactic transparency and sentence interpretation in aphasia. *Language and Cognitive Processes*, 2, 85–113.

Thompson, C. K, Shapiro L .P., Ballard K. J., Jacobs B. J., Schneider S. L., & Tait M. (1997). Training and generalised production of wh- and NP-movement structures in agrammatic aphasia. *Journal of Speech, Language, and Hearing Research*, 40, 228–244.