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## Comparison of Frequency and Typicality Effect on Naming Performance in Turkish Individuals with Aphasia

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### Introduction

Naming deficit is common among individuals with aphasia. Studies with people with and without aphasia revealed that a variety of different factors play a role in picture naming performance, such as word frequency (FR), familiarity, number of syllables or phonemes, etc. (Nickels & Howard, 1995). Typicality (TP) effect on various language tasks was also studied in previous studies, including aphasic population as well as the others (e.g., Kiran & Thompson, 2003).

Aim of this study is to compare the frequency and typicality effect on picture naming performance of Turkish participants with aphasia.

### Methods

Fifteen individuals with aphasia participated in the study. The types of aphasia were determined by their performance on the Language Assessment Test for Aphasia in Turkish (Maviş & Toğram, 2009). All participants had better scores in auditory comprehension, but poorer scores in confrontation naming.

For picture-naming task, a set of 72 pictures of words was developed. Frequency of words in six categories was determined by a Verbal Fluency Test (VFT) in Turkish (Tunçer, 2011) which was applied to 382 Turkish adults in different age and education groups. Thus, high and low frequent words had already become evident.

Since there is no study of typicality in Turkish, a prestudy was conducted to determine the typicality scores of words selected out of the VFT. 20 non-aphasic participants were asked to rate a total of 335 exemplars of categories on a 7-point scale of typicality. Words were excluded if they had a standard deviation of 2 or more, and if they were marked as an unfamiliar by at least 40% of the participants. 72 words were included in the task with; high, low and intermediate typicality. 36 of them were equal in FR and TP, 18 had higher FR scores than TP, and 18 had higher TP scores than FR.

The set of 72 pictures was presented to participants on a computer screen. Participants were then asked to name the picture on each slide in 20 seconds. If there was no response, semantic and phonemic cues were provided to elicit naming.

The number of correct naming for each picture was counted and FR-TP groups were compared to find which group of words was named more accurately.

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## **Results**

According to preliminary results, participants showed better performance in naming words that have higher frequency compared to typicality. Detailed results will be presented.

## **Conclusions**

Frequency is expected to have a larger effect than typicality in naming performance.

## **References**

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