



Concrete and Abstract Verb Production in Persian-Speaking People with Fluent and Non-Fluent Aphasia and Healthy Adults

Fatemeh Alipour^{1*}, Fariba Yadegari²

1. Department of Speech Therapy, Faculty of Rehabilitation Sciences, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

Abstract

Concreteness, a semantic feature related to imageability, seems to facilitate processing because concrete words benefit from both verbal and visual encoding according to dual coding theory, while abstract words rely primarily on the verbal route. To investigate the semantic feature of concreteness, we aimed at comparing the concrete/abstract verb production in Persian-speaking fluent and non-fluent people with aphasia (PWA) and healthy individuals. Forty-five participants, including 11 fluent PWA, nine non-fluent PWA, and 25 healthy controls, took part in this study. Several speech elicitation tasks comprising narrative discourse, picture description, and open-ended questions were applied. The percentages of produced concrete and abstract verbs were analyzed. The non-parametric Kruskal-Wallis's test was used to compare the three groups, and the Mann-Whitney U test was used as a post hoc test. Results showed significant differences in the total number of produced verbs, with non-fluent PWA producing fewer verbs than both healthy and fluent groups. No significant difference was found between groups in the proportion of produced concrete verbs. However, the production of abstract verbs was significantly lower in both PWA groups compared to healthy controls, with the non-fluent group showing the greatest deficit. These findings suggested that the semantic properties of verbs may affect their retrieval, with concrete verbs having richer mental representations due to sensorimotor connections. The greater difficulty in producing abstract verbs by non-fluent PWA may be attributed to left frontal brain damage, consistent with previous neurolinguistic research. Overall, the study supports the concreteness effect in verb production.

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Email: Shadii.alipur@gmail.com



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