Prosodic disturbance in Persian-speaking Broca’s Aphasics: Production

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Stroke can negatively affect a person’s ability to utilize properly acoustic measurements as a cue to prosody at the sentence level. The objective of this study was to determine the nature of the prosodic disturbances in Persian Broca’s aphasics at the sentence level in the framework of Autosegmental-Metrical Phonology. The subjects of this experimental study included three Persian-speaking males. They were selected by simple purposive sampling method from patients directed to the speech therapy unit in the Ghaem Educational, Research and Treatment Centre (Mashhad, Iran). Aphasic subjects sustained a lesion to the left hemisphere and particularly to the Fronto-temporal region. Acoustic measurements of duration, intensity, and terminal components of fundamental frequency (F₀) that distinguish statements from their yes-no question counterparts were examined in the reading task in Persian-speaking aphasis patients. The findings of the present research revealed that the aphasic individuals were able to produce statements from their yes-no question counterparts in terms of terminal components of fundamental frequency (F₀); however, they demonstrated a poorer performance than the control group. So, generally speaking, the present study confirms that linguistic ability of Persian-speaking aphasic patients to differentiate statements from questions may be preserved to some extent. The findings also support the notion that the left hemisphere may be important in the production of prosody and the Fronto-temporal region is sensitive to sentence-level prosodic contours.

Keywords: Prosody, Broca’s aphasia, Persian language, Production, Autosegmental-Metrical Phonology.

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