What is unique in the brain of an Arabic speaker?

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Literary Arabic is expressed in the brain of an Arabic speaker as a second language and not as a native language. This has been shown in a new study by Dr. Raphiq Ibrahim of the Edmond J. Safra Brain Research Center for the Study of Learning Disabilities at the University of Haifa's Department of Learning Disabilities.

"The cognitive disparity between the two languages is similar to the difference between a native and a second language. This offers an explanation for the objective and day-to-day difficulties that confront Arabic-speaking students when attempting to learn to read the non-spoken language," the researcher explains. The new study has been published in the Journal of Psychology Research and Behavior Management.

The Arabic language differentiates between the everyday spoken language, which has varying local dialects, and the written, literary Arabic (so called Modern Standard Arabic - MSA), which is shared by all Arabic speakers and is learned in all schools alongside reading and writing. According to Dr. Ibrahim, data collected over the past few years examining the Arabic reading skills and comprehension of Arabic-speaking students in Israel and Arab countries have shown a lower level of proficiency compared to Hebrew-speaking counterparts in Hebrew and to other native speakers in their native languages. One assumption has been that the difference between the languages influences the student's levels.

The current research sought to examine the cognitive status of spoken Arabic versus MSA in the brain, by means of a priming technique: examining the effect of auditory presented words in one language on the cognitive processing of the same word in another language. In order to do so, the researcher compared the priming effects between MSA, spoken Arabic and Hebrew amongst native Arabic speakers who master the three languages.

The results have shown that the cognitive process in using MSA in a bilingual native Arabic speaker who is also fluent in Hebrew is more similar to that employed for Hebrew, which is a second language, and less similar to the cognitive process of using a mother tongue. As such, all Arabic speakers who are fluent in MSA are considered de facto bilinguals. Dr. Ibrahim explains that "the results of this study indicate that linguistic structures of MSA that constitute the basis for reading acquisition are likely to be unfamiliar to the Arabic-speaking child when beginning to learn to read in first grade. This makes learning to read in Arabic a double mission, whereby children are expected to acquire in parallel an auditory linguistic system as well as a complex orthographic-visual language system."

He adds that this could have a negative effect on the development of reading skills and could compromise a pupil's achievements in the higher grades, especially for less skilled students. This new study also implies that MSA ought to be taught with techniques usually employed for the instruction of a second language. One such known technique, for example, is auditory exposure to a second language as early as preschool and kindergarten.

Source: University of Haifa (news : web)