

Neural Correlates of Arabic Digits Naming

Authors : Fernando Ojedo, Alejandro Alvarez, Pedro Macizo

Abstract : In the present study, we explored electrophysiological correlates of Arabic digits naming to determine semantic processing of numbers. Participants named Arabic digits grouped by category or intermixed with exemplars of other semantic categories while the N400 event-related potential was examined. Around 350-450 ms after the presentation of Arabic digits, brain waves were more positive in anterior regions and more negative in posterior regions when stimuli were grouped by category relative to the mixed condition. Contrary to what was found in other studies, electrophysiological results suggested that the production of numerals involved semantic mediation.

Keywords : Arabic digit naming, event-related potentials, semantic processing, number production

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020