PHONOLOGICAL AND MORPHOLOGICAL PROCESSING IN URDU: AN EYE-TRACKING STUDY
Phonological and Morphological Processing in Urdu: An Eye-tracking Study

Abstract

Reading models postulate that words with affixation, morphologically transparent and/or opaque words are accessed by stripping off their affixes or by morphological decomposition into its constituent morphemes, while whole words are accessed as a single non-composed unit.

Additionally, parafoveal information seems to facilitate word recognition. However, the facilitation depends on the linguistic features of a language being investigated. Parafoveal preview may benefit phonological /orthographic processing in languages like English and Finnish on one hand and morphological processing in languages like Hebrew on the other. Hence, the differences regarding inference in different languages may be attributed to variation in morphological structure and productivity of that language.

Since there is little research available in Urdu, we explored a comparative study with children and adults to understand if skilled reading had any differential effect with phonological and morphological competitors in a visual world paradigm. Statistical analysis revealed homophony and morphology to play a significant role in children while morphology
seemed to be a decisive factor among skilled readers. Subsequently, we
designed a simple word recognition experiment to see if there are
differential processing strategies across word class before attempting a
preview benefit experiment and reported differential processing strategies
being used during word recognition across stimuli. Therefore, we
furthered our research with the same stimuli to investigate parafoveal
processing and if preview benefit was facilitatory. Hence, we examined if
presentation of tri-consonantal root facilitated word recognition. The
results showed that mean response time differed significantly across
conditions. The results of this study were inconclusive because the
stimuli did not have a control and there was no baseline for comparison.
Therefore, to overcome the limitation we altered the condition by
replacing an orthographic control instead of the extension and added a
baseline. We found the presentation of root letters in the parafovea
inhibited word recognition in the foveal region.

The last section investigated differences in lexical processing as regard to
morphological structure in Urdu. The results show that words were
processed in the same way irrespective of the words formed out of a tri-
consonantal root or no specific root and differential processing across
word type.