Finite state representation of reduplication processes in Igbo

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2 Author(s)

Olamma Iheanetu ; Michael Adeyeye

Abstract:
This paper presents a finite state model of reduplication processes in Igbo. Identified Igbo reduplication processes are based on (i) verbal reduplication with prefixation, (ii) total nominal reduplication (iii) ideophone reduplication. However, this work identifies and includes a fourth and fifth type that occurs in the language, namely; (iv) adverbial reduplication and (v) prepositional reduplication. Xerox Finite State Tool (XFST) was used in representing the five Igbo reduplication processes computationally. Igbo verbal reduplication exhibits selective reduplication process and is characterized by prefixation and vowel replacement. Vowel harmony phenomenon was taken into consideration in achieving verbal reduplication to cater for phonological changes. Model testing results showed 84% accuracy in both analysis and recognition of reduplicated forms in Igbo.

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1. Introduction

Morphology is the lowest level of linguistic analysis. It is concerned with the rules of word formation in a language. Derived from the Greek word morphe, morphology implies shape or form [18]. [18] further defined morphology as the arrangement of members of an object and how these members combine to form a whole. In linguistic sense, an object signifies a word, while its parts or members refer to its constituent morphemes. Therefore, it is logical to define morphology as a branch of linguistics concerned with the morphotactics of a language, its realization from morphemes and applications. The study of morphology can either take a traditional (by human linguists) approach or computational approach.

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