

Variation in the Acoustic Structure of Defaka Vowels

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Defaka is classified as a separate branch of the Ijoid family of Niger-Congo. It is spoken in just one ward of Nkoroo town and a neighbouring hamlet, in the eastern reaches of the Niger Delta, in southeastern Nigeria. It is now spoken fluently by approximately 50 people, with intergenerational transmission seemingly present in just one family. The primary language of daily use among the Defaka is Nkoroo, also Ijoid, and which itself is considered endangered.

The Ijoid languages are known to have vowel systems featuring [ATR] harmony; the typical system is one of nine vowels, with an [ATR] contrast in front and back, high and mid vowels, viz: / i, ɪ, e, ε, a, ɔ, o, ʊ, u /.

The earliest work on Defaka (Jenewari 1983) claimed that, like other Ijoid languages, Defaka also had a nine vowel system with [ATR] harmony. Contrary to Jenewari, and in the only other published work available on Defaka phonetics and phonology, Shryock, Ladefoged & Williamson (1996/97) (following Bob-Manuel, 1990) propose a system of seven oral vowels for Defaka, / i, e, ε, a, ɔ, o, u /. Based on acoustic characteristics, they argue against an [ATR] contrast in the Defaka system, except possibly for /o/ – /ɔ/. They make no mention of /ɪ/ or /ʊ/, included by Jenewari as part of the system, and so presumably found no evidence of these vowels, or at least that they might be contrastive.

In this paper we present impressionistic and experimental phonetic evidence, based on new data from seven speakers, to test these two divergent views of the Defaka vowel system and to provide a more nuanced view of the Defaka vowel system. Our research reveals interesting variation both within and across speakers, with regard to both phonetic realization and the apparent number of vowel contrasts used by a given speaker. We show that there are at least eight phonetic oral vowels in Defaka, closer to the picture presented by Jenewari, but only six (possibly seven, depending on speaker) are contrastive, more in line with SLW's presentation. The acoustic structure of Defaka vowels and variation within the system are presented and discussed.

References

- Bob-Manuel, O. D. (1990). Aspects of the phonology of Defaka. Long Essay (for B.A.), Department of Linguistics and African Languages, University of Port Harcourt.
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