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Me Nem Nesa

A Phonological Analysis of Dothraki

Sanjeev Vinodh

Overview

Dothraki is a constructed language created by David J. Peterson with the Language Creation Society for the HBO TV show '*Game of Thrones*', based off of a collection of words found in the '*A Song of Ice and Fire*' book series by George R.R. Martin. According to Peterson, the language behaves most like Arabic (due to its harsh velars and uvulars) and Spanish (due to its -lat and -at lexical verb classes, dental consonants, and fusional conjugations) (Wright 2).

Inventory, Romanization, and Pronunciation

Dothraki's phonetic inventory is near identical to that of English, with a few key differences. The language does not contain the labial plosives [b] and [p] (except in names), has the notable additions of [x] and [q], and only contains 4 vowel phonemes: [a], [e], [i], and [o]. The romanized orthography of the phonetic inventory is identical to IPA for vowels, and identical to English for consonants. The segments [x], [θ], [ʃ], [tʃ], and [ʒ] are represented by the digraphs 'kh', 'th', 'sh', 'ch', and 'zh' respectively. When these digraphs are geminated, they are shortened, and represented orthographically as 'kkh', 'tth', 'ssh', 'cch', and 'zzh', while all other consonantal geminates are represented as double consonants (like 'nn'). Adjacent vowels are pronounced separately (becoming nuclei of adjacent syllables), so geminates are represented orthographically as double vowels (like 'oo') (Peterson 17-19).

Typological Tractability

Before beginning the phonological analysis of a language, there is a question that must be asked. Is Dothraki a reliable language to analyze for phonological phenomenon? As a conlang, does it have the consistency required to be analyzed as any other natural language? To answer this question, we must look to a metric called typological tractability, which predicts how typologically ‘normal’ a language is. Matt Destruel of Boston University approached the assessment of this metric by examining Dothraki’s adherence to Joseph Greenberg’s *Universals of Human Language* (1963), a set of 45 linguistic universals compiled through extensive analysis of 30 natural languages (see Works Cited). In a 2014 research paper titled published in *Lingua Frankly*, Matt Destruel demonstrated that Dothraki adheres to all 15 of Greenberg’s Universals that are relevant to it (Destruel 12), thus proving it to be typologically tractable and eligible for further study.

Phonology

The specific phonological phenomenon in Dothraki that will be analyzed in this paper are [ɾ] vs [r], vowel laxing after [q], and stress assignment.

The ‘r’ alternation

One of the most prominent characteristics present in Dothraki is the pronunciation of the orthographic ‘r’. Consider the following data (taken from “*The Dothraki Language Dictionary*”).

- | | |
|--|---|
| a) ri^hkh [rix] - <i>rotten</i> | rai [rai] - <i>hooray</i> |
| rhaesh [r ^h æʃ] - <i>land</i> | rhoa [r ^h oɑ] - <i>animal</i> |
| b) khogar [xogar] - <i>clothes</i> | yer [jer] - <i>you</i> |
| mhar [m ^h ɑr] - <i>sore</i> | hoshor [hoʃor] - <i>golden</i> |
| c) jerriya [dʒerija] - <i>discussion</i> | tolorro [toloro] - <i>bone</i> |
| d) chare [tʃɑre] - <i>ear</i> | darif [darif] - <i>saddle</i> |
| mori [mori] - <i>they</i> | chiori [tʃioɾi] - <i>woman</i> |
| e) mithri [miθri] - <i>rest</i> | krazaaj [krazaadʒ] - <i>mountain</i> |
| dothralat [doθralat] - <i>to ride</i> | davra [davra] - <i>good</i> |

From (a), (b), and (c), it is clear that the orthographic ‘r’ is pronounced trilled when word-initial, word-final, or geminated. On the other hand, (d) and (e) present examples where the ‘r’ is tapped word-centrally, regardless of whether it is preceded by a vowel in (d) or a consonant in (e). Since both segments [ɾ] and [r] are orthographically identical, and since they never occur in the same environment, it is reasonable to propose that they are allophonic. The underlying form must be the tapped /ɾ/, since this would allow predictable surface forms through the following rule:

/r/ → [r] / {# __, __#}

/r/ → [r̥] / elsewhere

Finally, we can posit that similar to Spanish, the orthographic ‘rr’ is represented underlyingly as /r/, thus resulting in the proper derivation for the geminate cases.

Vowel laxing

Dothraki orthographically consists of 4 vowels (a, e, i, o), but has 7 vowel sounds in its phonetic inventory: [a], [e], [i], [o], [ɑ], [ɛ], and [ɔ]. The occurrence of these segments is perfectly predictable as seen below, and seems to exhibit a vowel laxing process triggered by the uvular plosive [q]. Consider the following data (taken from “*The Dothraki Language Dictionary*”). The first column is a list of words containing each orthographic vowel before [q] in word-initial and word-central positions, while the second column is the same for [q]’s velar counterpart, [k]. The vowel sounds in the second column are a representation of what each vowel sounds like following any segment other than [q], so an exhaustive list has not been included.

qafat [qɑfat] - *to ask*

kafat [kafat] - *to smash*

loqam [loqɑm] - *arrow*

shokat [ʃokat] - *to jump over*

qevir [qɛvir] - *forest*

kemik [kemik] - *ally*

haqe [haqɛ] - *tired*

hake [hake] - *name*

qiyalat [qejalat] - *to bleed*

kisha [kiʃa] - *we*

naqis [naqɛs] - *small*

dothraki [doθraki] - *men who ride*

qora [qɔra] - *hand, arm*

koalak [koalak] - *healer*

eqorasalat [eqɔrasalat] - *to let go of*

sekosshi [sekoʃʃi] - *surely, certainly*

From the data above, it is clear that although orthographically identical, the vowels [a], [e], [i], and [o] are pronounced differently when they follow [q], with no exceptions. This is phonetically natural, since each vowel displays place of articulation assimilation to the backness of [q] by becoming lax (or more back in the case of [i]→[e]). The alternation can be captured by the following rules:

$$/V/ \rightarrow [-ATR] / q_$$

and since [i] has no lax counterpart in Dothraki's phonetic inventory,

$$/i/ \rightarrow [e] / q_$$

Stress

The final phenomenon is stress assignment in Dothraki. Below are two sentences released from an actual Game of Thrones script, which were marked with stress in order to help actors with their dialogues (taken from “*Season One Dothraki Dialogue*”):

'Anha tih mahra'zhes fin 'kasha cha'kat kar'lin.

[ˈan.ha tih mah.ra.ˈʒes fin ˈka.ʃa tʃa.ˈkat kar.'lin]

“I saw a man who lasted 20 miles.”

(“You Win or You Die, S1E7)

E'yel 'varthasoe she ileka'an 'rikhoya arrekka'an 'vekha 'vosi yero'on 'vosma to'lorro!

[e.'yel ˈvar.θa.so.e ʃe i.le.ka.'an ˈri.xo.ya a.re.ka.'an ˈve.xa ˈvo.si ye.ro.'on ˈvos.ma to.'lor.ro]

“The rain will fall on your rotting skin until nothing is left but bones.”

(“The Pointy End”, S1E8)

From these transcripts, words seem to fall into two predictable categories: word-final stress when the word ends in a consonant, and word-initial stress when it ends in a vowel. However, the word [to.'lor.ro] presents a counterexample, where the stress is penultimate rather than word-initial as predicted. It would be simple to label this as an exception, but this pattern is also found in other vowel-final words:

zha'vorsa [ʒa.'vor.sa] - “*dragon*”

vo'secchi [vo.'setʃ.tʃi] - “*of course not*”

(Peterson 21)

Instead of labelling every outlier an exception, a more comprehensive analysis can come from positing that Dothraki is a quantity sensitive language, and thus relies on syllable weight for stress assignment. In Dothraki, VC and CVC (closed) syllables can be considered heavy, while CV (open) syllables are considered light (CVV syllables cannot exist, since Dothraki converts vowel geminates into nuclei of adjacent syllables). Given these definitions, the stress assignment process can be delineated through a leftward scanning system outlined in the following steps:

1. If last syllable heavy, assign stress to it.
2. Else, see penultimate syllable. If heavy, assign stress to it.
3. Else, assign word-initial stress.

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