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Research on the Ha language

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Abstract

The aim of my research is to write a proper description of the Ha language on which an orthography proposal can be based. This description will include traditional type language description, which is the prerequisite for any further studies of the language, as well as a computational tool to describe and analyse the Ha grammar, including the tonal system. After the introduction to the project I present some basic phonological processes of the Ha language in terms of the Optimality Theory.

Introduction

Ha (also Kiha or Igiha) is a Bantu language spoken by nearly a million people in Western Tanzania. It is one of the 132 languages of Tanzania (Grimes 1996). The Waha (Swahili word for 'the Ha people'), speakers of Kiha (Swahili word for 'the Ha language'), form the majority of the population of the three districts east and north from Lake Tanganyika, which are Kigoma, Kasulu, and Kibondo. Nowadays there are quite a number of Wahas living also in other parts of Tanzania, as well as in Uganda, Kenya, Rwanda, Burundi, the Democratic Republic of Congo, and Zambia. The Ethnologue (Grimes 1996) lists the number of Kiha speakers as 800 000.

The Ha language is closely related to Kirundi of Burundi and Kinyarwanda of Rwanda. Guthrie (1971) has classified Ha as a group D60 Bantu language (D66), together with Kirundi, Kinyarwanda, Vinza, Hangaza and Shubi. In the classification of Eastern Bantu languages by Nurse and Philippson (in Hinnebusch et al. 1981: 10-11), Ha, as well as the other five languages in Guthrie's D60, are grouped together as West Highlands subgroup of the Interlacustrine group. In International Encyclopedia of Linguistics (Bright 1992) Guthrie's D60 is Narrow Bantu J.60.

There is no proper language description available on the Ha language.

Since Swahili and English are the languages of education in Tanzania Ha language is seldom written. There is a classified vocabulary by Nakagawa (1992) on the Kiha of the Kasulu area. In 1997 came out a book of Ha conversations by Mwegerano et al. In addition to this there are some old transcriptions by Catholic Fathers from the beginning of this century. On Kirundi and Kinyarwanda there are language descriptions and studies on different areas of the languages. These are of interest for the purpose of comparative linguistics. Further survey is thus needed in order to establish the relationships between the Ha dialects as well as with the related languages.

In my Master's thesis (Kiha Phonology, 1999) I have described the phonology and some morphology of the Kiha language. This is the necessary basis for any further study of the language. I have completed two fieldwork periods, in 1997 in Kibondo, some 200 km North from Kigoma, the capital of the Kigoma region, and in 2000 in Kibondo as well as in Kigoma and Kasulu. The Waha area, especially that of Kibondo, is fairly isolated because of the poor roads. On the whole this part of Tanzania is one of the least developed in the country. Most of the inhabitants of Kibondo are Waha.

During my first fieldwork period I recorded some seven hours of Ha stories and conversation, which I first transcribed with my language assistants and again from the recordings. Then I analysed the data phonologically, and I also started to build a dictionary database. During the second fieldwork period I collected more language material, concentrating on the areas left for less notice before. I also spent some time in Kigoma and Kasulu, the other major towns in the Kigoma region, and collected data of the dialects of these areas. By now I have written a rough sketch of the Ha grammar, and the dictionary database has now some 2000 entries.

Since the Optimality Theory is nowadays the dominant linguistic theory it is well motivated to test the approach to the Ha language. The model has been successfully applied to some isolated phenomena of Bantu languages but no complete Optimality description exists on any Bantu language to my knowledge.

The Optimality framework will be especially of interest in the area of tonology. Kinyarwanda has been successfully analysed as a pitch accent language (Furere & Rialland: 1983 & 1985), and the Ha language has a similar kind of a system. Since a pitch accent system is much more restricted than a purely tonal system it is possible that the usage of Optimality Theory in this area will result in a neat description of the phenomenon. Also the existence of the autosegmental levels will be assumed in the study, both on the tonological as well as the feature level.

For the computational description I have already tested the Two-Level-Morphology approach (Koskenniemi: 1983) to the Ha language. I have built an

analyser with a small lexicon, which can analyse simple structures of the language. But this is only the beginning of building an analyser that can analyse the whole language. There are quite a few morpho-phonemic rules that are not yet implemented, and the lexicon must be extended.

The results with the Two-Level approach look promising, but the model will not be sufficient alone to handle the analysis of the language since it analyses only the morphological level. It also gives quite a number of multiple analyses for individual words. Most of the disambiguous cases can be resolved by applying the Constraint Grammar model (Tapanainen: 1996). This method occupies contextual rules that can remove contextually false readings.

For the level of syntax I will test the Dependency Grammar model (Järvinen & Tapanainen: 1997). Also the analysis of the pitch accent system needs testing in order to find a method that can best describe the structures of the language.

The data cited in this paper is collected by myself in 1997 and 2000, in the Kigoma region. The data in square brackets is phonetic, and the input is enclosed between slashes. The data not marked is orthographic (a proposed orthography since no standard orthography exists). Tone is omitted in this paper.

Sound variation

I will discuss here some basic phonetic variation in Kiha, described in terms of Optimality Theory. These are the assimilation of the nasal to the place of articulation of the following obstruent, the weakening of bilabial plosives in vowel-medial position, the nasalisation of a voiceless plosive after a nasal, and the l ~ d variation. The phonetic symbols are IPA symbols.

Kiha data:

A. *ku-bona*	[kuβona]	infinitive (noun class 15) - see
B. *a-la-n-bona*	[alambona]	subject prefix 3. person sing. - present tense marker - object prefix 1. person sing. - see
C. *n-la-bona*	[ndaβona]	subject prefix 1.person sing. - present tense marker - see
D. *in-koko*	[iŋ̩ŋ̩oko]	noun class 9 - hen

Faithfulness constraints:

Faith(place)stem: faithfulness to the place of articulation of the stem.
Faith(cont)stem: faithfulness to the continuancy of the stem.

Faith(voice)stem: faithfulness to the voice of the stem.

Identical cluster constraints (Pulleyblank 1997:64):

ICC(place): a sequence of consonants must be identical in place of articulation.
ICC(nasal): a sequence of consonants must be identical in nasality.

These five constraints are ranked in the following way in Kiha:

Faith(voice)stem >> Faith(place)stem, ICC(place) >>
Faith(cont)stem >> ICC(nas)

The ranking of these constraints is taken as a preliminary and is not discussed in this paper.

The voiced bilabial plosive *b* never pronounced as [b] between vowels or word-initially followed by a vowel in Kiha. In these environments it is weakened to fricative [β] (as in A). The lenition constraint *LE/[+lab, -cont] (features +labial and -continuant are not allowed together) is violated by labial plosives (Honeybone 1996), and it has to be ranked above the Faith(cont)stem constraint (tableau 2.1). Candidates (c) and (d) violate fatally the Faith(place)stem constraint, which is thus is ranked to the same level with the lenition constraint.

(2.1)

/ku-bona/ ‘to see’	Faith (place)stem	*LE/[+lab, -cont]	Faith (cont)stem
a. [kubona]		*!	
b. * [kuβona]			*
c. [kudona]	*!		
d. [kuðona]	*!		*

In consonant clusters of a nasal and a voiced plosive the nasal assimilates to the place of articulation of the plosive (as in B). The Faithfulness constraints and the Identical cluster constraints do not apply to candidate (j) (tableau 2.2), and a new constraint is needed. The constraint *NC_{cont} rejects consonant clusters where the first segment is a nasal and the other a continuant. The candidates (g) and (h) where the nasal is altogether deleted violate the constraint Faith(C) (‘do not delete a consonant’). The lenition constraint has to be ranked below the *NC_{cont} constraint, so that the correct candidate survives.

(2.2)

/a-la-n-bona/ ‘he sees me’	Faith (place)stem	ICC (place)	Faith(C)	*NC_{cont}	*LE/[+lab, -cont]	Faith (cont)stem
a. [alanbona]		*!				
b. [alanβona]		*!		*		*
c. [alamβona]				*!		*
d. * [alambona]					*	
e. [alandona]	*!					
f. [alanðona]	*!			*		*
g. [alaβona]			*!			*
h. [alabona]			*!			
i. [alanmona]		*!		*		
j. [alammona]				*!		

Since the sequence NC_{cont} is not valid, the alveolar lateral approximant [l] is rejected in favour of the plosive [d] after a nasal (as in C). Candidate (e) in which a vowel is added after the nasal violates the dependency constraint DEP(V) (‘do not insert a vowel’) (tableau 2.3).

(2.3)

/n-la-bona/ ‘I see’	DEP(V)	*NC_{cont}	*LE/[+lab, -cont]	Faith (cont)stem
a. [nlabona]		*!	*	
b. [nlaβona]		*!		*
c. * [ndaβona]				*
d. [ndabona]			*!	
e. [nalaβona]	*!			*

Kager (1999) discusses a markedness constraint *NC̥: (= No nasal plus voiceless obstruent sequences). This constraint ranks high also in Kiha, but the alternative strategy is none of those discussed by Kager (deletion, epenthesis, post-nasal voicing, denasalisation). In Kiha the voiceless plosives become nasalised after nasals in normal speech (as in D). Thus the constraint *NC̥ has to be ranked lower than Faith(C) (‘no deletion’), DEP(V) (‘no epenthesis’), and Faith(voice)stem (tableau 2.4). However, in slow speech the nasal - voiceless obstruent is allowed, and thus the constraints *NC̥ and *NC_{cont} should be ranked in the opposite way (tableau 2.5).

(2.4)

	/in-koko/ 'hen'	Faith (voice) stem	Faith (place) stem	Faith(C)	ICC (place)	DEP(V)	*NC̥	*NC$_{cont}$
a.	[inkoko]				*!		*	
b.	[iŋkoko]						*!	
c. *	[iŋ̩ŋoko]							*
d.	[imkoko]				*!		*	
e.	[in̥noko]		*!					*
f.	[intoko]		*!				*	
g.	[ingoko]	*!			*			
h.	[iŋgoko]	*!						
i.	[iŋoko]			*!				
j.	[ikoko]			*!				
k.	[inikoko]					*!		

(2.5)

	/in-koko/ 'hen'	*NC$_{cont}$	*NC̥
a. *	[iŋkoko]		*
b.	[iŋ̩ŋoko]	*!	

The relative ranking of the constraints discussed in normal speech is thus:

Faith(voice)stem >> Faith(place)stem >> *NC$_{cont}$ >> *LE/[+lab, -cont] >> Faith(cont)stem
Faith(C)
ICC(place)
DEP(V)
*NC̥

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