### Perspectives on Click Consonants of Khoekhoegowab: An Alternative Description

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# Abstract

This paper presents an alternative description of plain, and complex click consonants and their relationship to non-click consonants in Khoesan languages. Our research was based on data gathered from key informants and focus groups in Namibia's Karas, Hardap, and Kunene regions, as well as secondary sources. Our findings challenge the common belief that plain clicks in Khoekhoegowab are glottalized, suggesting instead that the glottalization is a result of the accompanying vowel. We also use articulatory and auditory phonetics to question the concept of "complexity" in click complexes and demonstrate that these click consonants serve the same morphophonological function as consonants in non-click languages. In conclusion, we argue that plain and complex clicks should be viewed as part of the same continuum as non-click consonants.

**Keywords:** Khoekhoegowab, plain clicks, complex clicks, click accompaniment, phonation, airstream mechanisms

#### Introduction

The paper tackles the question of how or whether click and non-click consonants can be integrated into a unitary system. To develop this argument, we draw on Traill (1985, 1995, 1997) and especially Miller, Brugman, Sands, Namaseb, Exter and Collins' (2009) description of clicks having lingua airstream rather than velaric airstream and Bradfield's (2014) arguments on co-articulation to account for the merits of unitary analysis, in which click consonants are integrated with other consonants. The paper argues that click consonants and non-click consonants should not be seen as forming parallel consonant systems but as integrated or unitary ones. Currently, Khoekhoegowab is seen as having vowels, consonants, and clicks.

#### Khoekhoegowab click sounds: A brief review

It is widely known that Khoekhoegowab has four plain or basic clicks, namely: the dental click []], palatal-alveolar click [‡], post-alveolar click [!] and lateral alveolar click []],(Khoekhoegowab orthography, 2003; Miller et al., 2007; Haacke & Eiseb, 2002). These are also called click types in Miller et al. (2007). Despite the recognition of these click consonants as consonants in their own right (see Table 1, for example), their role is often lost in that a simple click sound is thought not to exist without a (glottal) accompaniment as exemplified in the 2003 Orthography. It is against this background that we argue that there is no voicing in simple clicks as they are voiceless. The present paper argues that the first transcriptions of Khoekhoegowab appeared to influence subsequent descriptions of the sounds. Also, the transcriptions of Khoekhoe sounds have always been influenced by external forces in which clicks were described as unique and even exotic because they deviated from well-known consonants (Kilarski & Kolaczyk, 2012). This 'exoticisation' of click consonants has often led to descriptions of the Khoesan languages as difficult and 'complex', and mother tongue speakers are stereotyped as different from the 'ordinary'...? since they can master the pronunciation of these clicks. Here we use the term 'complex' only as a way to distinguish the former from the latter kinds of click consonants that exhibit phonation (voicing) and other consonantal elaborations.

#### The notion of click accompaniment

For Traill (1985) clicks can be accompanied by other consonants. The term 'accompaniment' has its roots in 1985 as a replacement for older terms such as 'efflux' or secondary articulation. According to Traill (1985, p.99) the term 'accompaniment' is "preferable because it is phonetically neutral in that it

applies to any consonantal material surrounding the click." Miller et al. (2007) dismiss this argument and instead maintain that the term accompaniment is phonetically empty as it suggests the resulting consonants are fragmented. They argue that the consonants should be seen as single units. In this paper, we want to problematise the notion further and argue that the idea of click plus accompaniment has been used to account for what is called 'complexity' in Khoesan languages. Linking the idea of complexity to the various Khoesan consonant elaborations including closures and releases makes the languages seem 'exotic' and patently different from non-click languages. In this paper, we take the position that this does not have to be the case, as consonants combining to form a unit, is not unique to Khoesan languages.

# **Research design**

The study followed an ethnographic research design. Ethnography is a methodology that uses detailed systematic observation, recording and analysis of human behaviour in specified spaces and interactions (Heath & Street, 2008). This paper is based on a larger dialectal study of Khoekhoegowab in Namibia over nine months. The study was conducted in the Hardap, Karas, and Kunene regions, respectively. The towns and villages included Gibeon in the Hardap region, Grunau and Aroab in the Karas region and Khorixas in the Kunene region. We had one key informant from Hardap, and Kunene, and two from the Karas region. We also conducted one focus group discussion in each of the regions. Both observation and interview data were transcribed and linguistically analysed. The informants were selected using a snowballing technique where the researchers were directed by community members to certain individuals and groups deemed resourceful. To conform to the ethical principles of research, the researchers explained principles like confidentiality and the fact that they may withdraw from the study at any given time. The purpose of the research was explained, and all informants were granted permission. As the fundamental ethical principle is not to force participants, voluntary participation was encouraged.

# Discussion

# Click consonants and non-click consonants

We see plain clicks as being produced through ingression of air which produces an acoustic effect as a result of the suction. On the other hand, complex clicks have additional phonetic elements in that they involve sounds that are produced with a partial or complete closure of the vocal tract. Thus, 'complex' click consonants are also classified based on whether they are voiced or not, ejective and aspirated or not. Plain clicks ('click types') are similar to 'complex clicks' in that they function as consonants in the Consonant Vowel CV structure. In the examples below, the first set the plain clicks functions like an ordinary pulmonic consonant while the second and the third sets the clicks are segmented or 'complexed' and voicing is in the accompanying consonants which provide the closure.

Plain [] ]		voiceless accompaniment [[kn] voiced accompaniment [g]]			
!om	(hornless)	!khom (destroy)	!gom	(heavy)	
om	(breath)	khom (feel sorry for)	gom	(disjointed)	
∥am	(strike)	kham (clip)	∥gam	(discuss)	
∥a	(wash)	∥kha (wealthy)	∥ga	(put something on the neck)	
‡a	(slaughter)	‡kha (stop)	‡ga	(put in)	

In the first set of examples, the plain clicks function like consonants, and the second set is a voiceless click complex because the reflected release of the posterior closure is a voiceless fricative. However,

the third set represents a voiced click complex as a result of the voicing in the posterior closure provided by a voiced stop consonant (cf. Miller et al., 2007). Thus, phonetically the plain clicks that is the []] dental click, []] lateral click, [!] alveolar click, and [ $\ddagger$ ] palatal click are 'plain' or more precisely they are 'plain clicks' (sounds). What distinguishes the three sets of examples is the interaction between the glottalic airstream mechanism (giving rise to plain clicks) and the pulmonic and velaric airstream mechanisms (giving rise to voiced and voiceless complex clicks). Similarly, when we talk about voiced nasalised click sounds, we need to be mindful that voicing is not in the click sound per se but in the co-articulated nasal sound. Thus, the nasalised click denoted as [ $\eta$ ]] can be said to be a result of the co-articulation of a click sound with a nasal element. This is also the case with the aspirated click where the aspiration is in the coarticulation as in [ha (gather everything) ][ha (cut) !hao (foreign)  $\ddagger$  ha (push).

Given the above description, Miller et al. (2007) have a point when they suggest that non-click and click consonants can be described using conventional descriptive tools and features. Similarly, the notion of 'complex' needs should also be problematised. Traill (1985) suggested the notion of 'accompaniment' simply as a way of capturing the great diversity of possible feature elaborations in click consonants. The problem however is that elaborations in non-click consonants such as stops or affricates, ejection, aspiration, or voicing are not treated as 'complex.' Similarly, there are co-articulated segments, such as the velar-labial consonants of Yoruba in West Africa which are considered to be 'ordinary' single-sound consonants. In this regard, aspirated and ejective segments are routinely represented in International Phonetic Alphabet IPA conventions without people assuming that they are complex segments. We want to argue that we should be cautious of 'exoticising' consonant inventories and phonotactic structures of languages especially where 'complexity' is seen in terms of phonetic deviations or elaborations from well-known languages (Kilarski & Kolaczyk 2012). Therefore, we agree with Miller et al. (2007, p. 151) summation that:

Khoesan languages may have large inventories, but they are merely making maximal use of categories that are well-motivated cross-linguistically. Like Hawaiian and other languages with ... small inventories, Khoesan languages represent an endpoint in the spectrum of inventory size, not a fundamentally different type of system. In this regard, we want to add that the issue is not about the size of the inventory of consonants, but rather the novel ways in which consonants, regardless of size are combined and re-constructed to produce different phones for its speakers. In this conceptualisation, all languages are unique and complex in their ways.

The discussion above has shown that the different kinds of click consonants are produced from the glottalic, velaric and pulmonic airstream mechanisms. From the discussion above, we derive the following chart showing Khoekhoegowab click sounds.

Chart showing the plain clicks and complex clicks in Khoekhoegowab:

Plain clicks:			!	ŧ
Voiced clicks:	g	gl	g!	g‡
Voiceless aspirated clicks:	۱'n	∥ <sup>6</sup>	ĺ <sub>υ</sub>	<b>+</b> ^
Voiceless velar aspirated clicks:	kʰ	∥k <sup>ĥ</sup>	!kʰ	‡k <sup>ĥ</sup>
Voiced nasalised clicks	ין	מ	υİ	י‡

In terms of voicing and aspiration, the aspirated clicks and voiced click sounds, are not different from what are called 'ordinary' consonants. We have shown that all these click consonants function as nonclick consonants.

# **Discussion and Conclusion**

Literature has discussed click accompaniments, but instead of click accompaniments, we use click consonants and non-click consonants. This paper examined the phonetic inventory of Khoekhoegowab clicks where the 'complex' clicks notion is only used for convenience to distinguish the different kinds of clicks rather than in terms of 'difficulty' compared to other consonants or non-click language groups. We have concluded that researchers have argued that regarding 'complex' clicks, the voicing in these clicks comes from the co-articulated consonants. Unlike plain clicks, complex clicks can be described as either voiced or voiceless as a result of co-articulated sounds. In terms of CV formation, plain clicks and complex clicks function as ordinary consonants.

We can conclude that complex click sounds are produced from two airstreams created from the interaction between the velaric and pulmonary airstreams. Phonation effects and other consonantal elaborations are produced by the pulmonary and the velaric airstreams. Indeed Miller et al.'s (2007), study on the place and various articulations of different click sounds found no evidence of pulmonary bursts including closures during pronunciation of click types or plain click sounds. They argued that "there is no indication in these waveforms of a pulmonic burst between the click burst and the vowel. Auditory descriptions of clicks often claim that the release of the posterior constriction is a pulmonic stop, but it is crucial to our subsequent argument that this is not the case, and clearly in these waveforms there is no such burst" (p. 125). What this suggests is that the clicks by themselves do not have voicing and other elaborations caused by the pulmonary airstream. It is against this background that we need to be cautious when describing the glottal stops in clicks as they are because of the following vowel. We argue that clicks do not inherently have a glottal stop element, as this is a function of the accompanying vowel. Indeed, Miller et al. (2007) note that the "linguo-pulmonic stops differ from their lingual counterparts in that the lingual burst is followed by a period of silence and a second, pulmonic burst" (p. 143). In effect, the two sets, plain clicks and 'complex' clicks are created in two parallel airstreams: one set is created through the velaric airstream and the other from the pulmonary airstreams. The plain click is at the velaric level, while the complex occurs at the pulmonary level. However, we do not see complex clicks as any different from other consonants in terms of functions. Given these arguments, perhaps there is a need to dispense the word 'complex' unless it is being used to differentiate the different kinds of click consonants. Having said that, we want to reiterate that a segmented combination of two consonants is not necessarily unique as it is also found in Yoruba's velar-labial consonants: the voiceless [kp] and the voiced [gb].

### References

Beach, D.M. (1938). The phonetics of the Hottentot Language. W. Heffer & Sons, Ltd.

Bleek, W. H. I. (1858). The library of Sir George Grey. Vol. 1, part 1. Trübner & Co.

Bradfield, J. (2014). Clicks, concurrency and Khoisan. Phonology, 31(1), 1-49.

- Breckwoldt, G. H. (1972). A critical investigation of click symbolism. In Andre Rigault & Rene Charbonneau (eds.), *Proceedings of the Seventh International Congress of Phonetic Sciences.* pp.281-293. Mouton.
- Brugman, J.C (2009). Segments Tones and Distribution in Khoekhoe Prosody. Unpublished PhD. Dissertation, Cornell University.
- Curriculum Committee for Khoekhoegowab. (2003). *Khoekhoegowab*: 3∥î xoa|gaub/Orthography 3. Gamsberg Macmillan.

Haacke W. H. G., & Eiseb E. (2002). A Khoekhoegowab Dictionary. Gamsberg Macmillan.

- Haacke, W. H. G. (1989) 'Nama: Survival through standardization.' In István Fodor & Claude Hagège (eds.), *Language reform: History and future. IV*. pp.397-429. Helmut Buske Verlag.
- Haacke, W. H. G. (1999). *The tonology of Khoekhoe (Nama-Damara).* (Quellen zur Khoisan-Forschung 16). Cologne: Rüdiger Köppe.
- Hagman, R. (1977). Nama Hottentot Grammar. Indiana University Publications
- Hammersley. M & Atkinson. P. (1995). *Ethnography: Principles in Practice*. (2<sup>nd</sup> edition). Routledge.
- Heath, S.B. & Street, B.V. (2008). *Ethnography: Approaches to Language and Literacy Research*. Teachers' College Press.
- Kilarski, M. & Kolaczyk, K. D. (2012). On Extremes in linguistic complexity. Phonetic accounts of Iroquoian, Polynesian and Khoesan. *Historiographia Linguistica* 39:2/3. John Benjamins.
- Lepsius, R. (1855). Standard alphabet for reducing unwritten languages and foreign graphic systems to a uniform orthography in European letters. Williams & Norgate.
- Lepsius, R. (1863). Standard alphabet for reducing unwritten languages and foreign graphic systems to a uniform orthography in European letters. (2<sup>nd</sup> edition). Williams & Norgate.
- Miller et al. (2007). The sounds of N/uu: Place and airstream contrasts. Working Papers of the Cornell Phonetics Laboratory. 16, 101-160
- Namaseb, L, Haacke, W, Davids, L, Kure, B. K. Araes, A, Ortman, D, Fredericks, N & Moeti, M.C. (2008). *The Standard Unified Orthography for Khoe and San Languages of Southern Africa*. CASAS Monograph Series No. 232.
- Tindall, H. (1857). A Grammar and Vocabulary of the Namaqua-Hottentot Language. St. G.J. Pike's Machine Printing Office.
- Traill, A. (1985). *Phonetic and Phonological Studies of !Xóõ Bushman* (Quellen zur Khoisan-Forschung 1). Helmut Buske Verlag.

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