Nasality and Laryngeality in Taa

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Taa

Taa, alias !Xóõ or !Xoon, is a Khoisan language.

My data comes from Tony Traill (eastern dialect, 1960s–90s) and Christfried Naumann (western dialect, 2000s).

Taa is famous for the richness of its phoneme inventory, especially clicks

The click consonants of !Xóõ

ʘ	ʘ̬	ʘʰ	ʘ̬ʰ	ʘˀ	ʘ̬ˀ	ʘ̃	ʘ̬̃	ˀʘ̃	ʘq	ʘ̬q	ʘqʰ	ʘ̬qʰ	ʘqˀ	ʘ̬qˀ	ʘqˠˀ	ʘ̬qˠˀ	ʘχ	ʘ̬χ	ʘh	ʘ̬h	ʘʔ	ʘ̬ʔ
ǀ	ǀ̬	ǀʰ	ǀ̬ʰ	ǀˀ	ǀ̬ˀ	ǀ̃	ǀ̬̃	ˀǀ̃	ǀq	ǀ̬q	ǀqʰ	ǀ̬qʰ	ǀqˀ	ǀ̬qˀ	ǀqˠˀ	ǀ̬qˠˀ	ǀχ	ǀ̬χ	ǀh	ǀ̬h	ǀʔ	ǀ̬ʔ
ǃ	ǃ̬	ǃʰ	ǃ̬ʰ	ǃˀ	ǃ̬ˀ	ǃ̃	ǃ̬̃	ˀǃ̃	ǃq	ǃ̬q	ǃqʰ	ǃ̬qʰ	ǃqˀ	ǃ̬qˀ	ǃqˠˀ	ǃ̬qˠˀ	ǃχ	ǃ̬χ	ǃh	ǃ̬h	ǃʔ	ǃ̬ʔ
ǁ	ǁ̬	ǁʰ	ǁ̬ʰ	ǁˀ	ǁ̬ˀ	ǁ̃	ǁ̬̃	ˀǁ̃	ǁq	ǁ̬q	ǁqʰ	ǁ̬qʰ	ǁqˀ	ǁ̬qˀ	ǁqˠˀ	ǁ̬qˠˀ	ǁχ	ǁ̬χ	ǁh	ǁ̬h	ǁʔ	ǁ̬ʔ
ǂ	ǂ̬	ǂʰ	ǂ̬ʰ	ǂˀ	ǂ̬ˀ	ǂ̃	ǂ̬̃	ˀǂ̃	ǂq	ǂ̬q	ǂqʰ	ǂ̬qʰ	ǂqˀ	ǂ̬qˀ	ǂqˠˀ	ǂ̬qˠˀ	ǂχ	ǂ̬χ	ǂh	ǂ̬h	ǂʔ	ǂ̬ʔ

(after Naumann 2009)

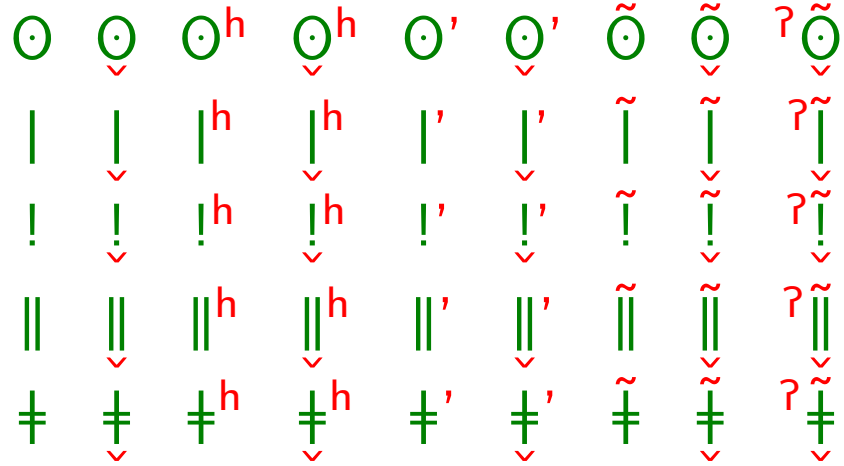
It's not that bad . . .

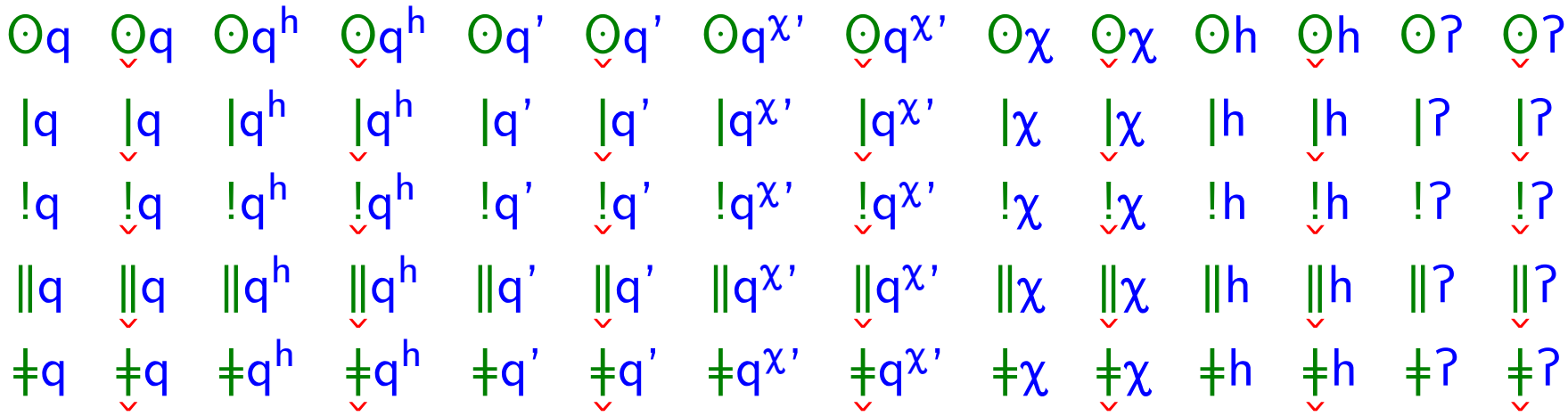
I have argued elsewhere that the *click* can be factored out **at the phonemic level** from the *accompaniment* – either in feature-based or element-theoretic analyses.

Here I'm only thinking about accompaniments: manner (laryngeal and nasal) modifications of the velar/uvular closure inherent to clicks, and its accompanying airstream.

Also, it's now generally accepted that some of the 'clicks' are clusters with other consonants.

Clicks, accompaniments, and clusters





Clicks, accompaniments, and clusters

ʘ ǀ ǃ ǁ ǂ

clustering ‘vertically’ with

ɤ ɤ̰ ɤʰ ɤ̰ʰ ɤʼ ɤ̰ʼ ɤ̃ ɤ̰̃ ʔɤ̰̃

and ‘horizontal’ clusters of

ɤ ɤ̰ with q qʰ qʼ qˠʼ χ h ʔ

The simple accompaniments

- plain !, *!áa* ‘to rain’
- pre-voiced ᶢ!, *g!àa* ‘to lean’
- aspirated !ʰ, *!hàma* ‘be ill’
- voiced aspirated ᶢ!ʰ, *g!hàma* ‘put aside’
- ejective !’, *!’áan* ‘sit’
- voiced ejective ᶢ!’, *g!’òre* ‘bury’
- nasal ᶮ̃!, *n!áa* ‘container’
- voiceless nasal ̃!, *nh!á’a* ‘conceal’
- preglottalized nasal ˀᶮ̃!, *’n!ài* ‘bachelor’

Element-theoretic analyses (1)

Polgárdi (2014) represents simple clicks as complex segments with two roots:

- one for anterior closure, carrying voice (**L**) in a Place node (cf. Currie Hall (pc) in Bradfield (2014))
- one for posterior closure, carrying other laryngeal distinctions (e.g. **H** aspiration)

It is not shown where preglottalization, ejectivity and nasality should lie.

Element-theoretic analyses (2)

Bradfield (2017) uses a single root for simple clicks, and a kitchen sink of elements:

- full Harrisian set of place elements, plus **K** for clicks
- **L**, **N**, **H** for voice, nasality and aspiration
- heading the **ʔ** for glottalization/ejectivity

Question (1)

What is the right way to do it in a few-primes theory? What is the geometry?

The vowels of Taa

It gets worse!

Five basic vowels /a e i o u/.

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In a typical two-vowel stem, the first vowel may be

- plain, *!áa* ‘to rain’
- breathy, *!àhi* ‘tell a lie’
- creaky, *!á’e* ‘green stinkbug’
- pharyngealized (back vowels only), *!àqbu* ‘be thick-textured’
- breathy creaky, *!ǒh’la* ‘await’
- creaky pharyngealized, *ǀàq’li* ‘snake tongue’
- strident, *!ǎqhi* ‘type of plant’
- creaky strident, *ǀáqh’le* ‘phalanges’

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and the second vowel may be nasalized, *ǀǒh’on* ‘sweet’

Interactions

- vowel nasality appears to be orthogonal to all else
- voice is orthogonal
- a stem has at most one breathy/aspirated segment
- a stem has at most one creaky/ejective segment . . . **but** pre-glottalized clicks can precede creaky vowel, *'ǀnè'en* ‘grunt’
- ejective clicks preclude breathy vowels; aspirated clicks preclude creaky vowels
- pharygealized/strident vowels preclude ejective and aspirated clicks

Kuniya?

I *think* Nasukawa–Backley element theory can manage quite a lot of it – am I right?

Anybody up for smaller element sets?