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Contact influence in the Tjhauba variety of Kgalagadi

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Abstract:

Tjhauba, spoken in northwestern Botswana, is a regional variety of the Bantu language Kgalagadi. Tjhauba exhibits a number of striking linguistic differences with respect to other, previously described Kgalagadi varieties, some the result of language-internal changes, but mostly due to contact with different surrounding Khoisan and Bantu languages. Making use of newly collected field data, this paper shows that Tjhauba has an extensive inventory of click phonemes, contrasting different click accompaniments and, in the speech of elderly speakers, also different click types. Tracing the sources of Tjhauba click words shows that these originate in different Khoisan languages, but also in the Bantu click language Yeyi. Semantically, click words, but also loanwords that do not contain clicks, cluster in the domain of flora and fauna, particularly species found in or close to water. These linguistic findings also shed light on the history of Tjhauba speakers. The adoption of a large number of click phonemes suggests intensive language contact, as still evidenced by ongoing Tjhauba/Khwe bilingualism. A number of the likely source languages for Tjhauba click words are no longer spoken in the area, suggesting contact situations that are no longer ongoing. Furthermore, clicks occur in loanwords, but unlike in neighbouring Bantu click languages, there is no evidence that clicks were also extended to inherited Tjhauba words. This suggests that the sound symbolic or identity marking functions of clicks as posited for other Bantu click languages do not play a role in Tjhauba.

Keywords: Tjhauba, Kgalagadi, Khoisan, Bantu, language contact, clicks

1 Introduction

This paper discusses contact influence in Tjhauba, a regional variety of the Bantu language Kgalagadi spoken in Botswana. Kgalagadi is spoken across most of Botswana, and exhibits extensive regional variation (Kalasi 2003; Lukusa & Monaka 2008). This variation can par-

tially be attributed to language contact, such as differing degrees of influence from the national language Tswana (Monaka 2013), but possibly also from various Khoisan languages, because many Khoisan speakers live in close contact with Kgalagadi-speaking communities.

In spite of these close relationships, which provide ample opportunity for extensive language contact, contact-induced changes in Kgalagadi from Khoisan languages have not often been identified. For instance, clicks, a salient Khoisan-derived feature, occur in various Southern African Bantu languages, but are absent or marginal in Kgalagadi (Pakendorf et al. 2017: 15). In the Tjhauba variety of Kgalagadi, however, clicks have been suggested to occur more extensively (Lukusa & Monaka 2008: 10; Monaka 2013: 46). In this paper, I present newly collected field data on the Tjhauba variety of Kgalagadi. These confirm that the language has an extensive inventory of click phonemes, which distinguishes multiple click accompaniments, and, in the speech of certain elderly speakers also multiple click types. I also analyze the provenance of the Tjhauba words in which click phonemes occur, showing that they trace back to various Bantu and Khoisan languages. These contact-induced changes shed light on the past and ongoing contact situations in which Tjhauba speakers have been involved.

This paper is structured as follows. In section 2, I provide an introduction to the linguistic landscape of Southern Africa, focusing on Bantu languages, Khoisan languages and contact between them. In section 3, I introduce the Tjhauba variety of Kgalagadi, and give details on its sociolinguistic situation and the context in which the data were collected. Section 4 discusses some key similarities and differences between Tjhauba and its closest linguistic relatives, that is to other Kgalagadi varieties as well as to other members of the wider Sotho-Tswana cluster to which Kgalagadi belongs. In section 5, I discuss contact influence in Tjhauba, focusing on the occurrence of clicks as clear signs of (past) Khoisan contact. Section 5.1 presents a preliminary analysis of the click inventory of Tjhauba, and describes patterns of variation in the realisation of clicks. Section 5.2 considers the lexical items in Tjhauba in which clicks occur, their semantic domains and the (possible) languages of origin. In section 5.3, I consider other contact-induced changes, particularly loanwords that do not contain clicks. In section 6, I discuss the implications of these linguistic findings for the understanding of the history of the Tjhauba

speakers. Conclusions and outlooks for further research are presented in section 7.

2 Languages of Southern Africa

This section introduces the linguistic landscape of modern-day Southern Africa, focusing on Bantu and Khoisan languages in 2.1, and an overview of previous research on Bantu-Khoisan language contact in 2.2. The linguistically diverse Ngamiland region of Botswana, where Tjhauba is spoken, is introduced in 2.3.

2.1 The linguistic landscape of Southern Africa

The linguistic landscape of modern-day Southern Africa is characterized by three main groups of languages: European languages, with relatively small numbers of native speakers but a very strong sociolinguistic position; Bantu languages, spoken by the majority of Southern Africans; and Khoisan languages, spoken by small, severely marginalized communities. European languages only arrived in Southern Africa during the last five hundred years as part of colonization, and these include English, Afrikaans, German (in Namibia) and Portuguese (in Mozambique). Bantu languages are spoken natively by the vast majority of Southern Africans. A subgroup of the larger Niger-Congo phylum, the Bantu family originated in Central-Western Africa around 5,000 years ago, from where Bantu-speaking communities spread East- and South-wards, ultimately settling most of subequatorial Africa (Bostoen 2018). The first Bantu-speaking communities reached Southern Africa around 300 AD, although not all Bantu languages currently spoken in Southern Africa are necessarily descendants of the languages spoken by these early migrants (Gunnink, Chousou-Polydouri & Bostoen 2023). Nowadays, Bantu languages are spoken all over Southern Africa. The majority of these belong to the Southern Bantu subgroup, classified as zone S in Guthrie's alphanumeric, referential classification (Guthrie 1948; see Hammarström 2019 for the most recent version), and confirmed to form a genealogical cluster by more recent research (Gunnink, Chousou-Polydouri & Bostoen 2023; Grollemund et al. 2015). Southern Bantu languages are spoken across the eastern half of Southern Africa, whereas in the western half, languages of zones R and K are found, which are grouped in the

larger South-Western Bantu group also found in Angola (Grollemund et al. 2015).

Before the arrival of Bantu languages, Southern Africa was dominated by speakers of Khoisan languages. Khoisan was initially classified as a single phylum, but specialists now concur that three unrelated families should be recognized, Kx'a, Khoe-Kwadi and Tuu (Güldemann 2014), although the label "Khoisan" is maintained as convenient grouping for Southern African languages using click phonemes that are not part of other language families (e.g. Bantu) (Witzlack-Makarevich & Nakagawa 2019). Of the three Khoisan families, Kx'a and Tuu may have been spoken in Southern Africa for a very long time, but the Khoe-Kwadi languages are likely to be the result of a more recent migration. This would have involved pastoralist communities from Eastern Africa migrating into Southern Africa around 2,000 BP, where they came into contact with resident Kx'a and Tuu speaking communities (Güldemann 2008; Güldemann 2020). Extensive, multi-directional contacts led to a linguistic area with many linguistic features shared across language families (Güldemann & Fehn 2017).

Nowadays, virtually all Khoisan languages are endangered or moribund (Hasselbring 2000; Batibo 1998; Brenzinger 2007), in addition to the (partially unknown) number of languages that have already become extinct (Traill 2002). Of Khoisan languages still spoken today, not all languages are well-documented, although the state of documentation has improved a lot over the last years (Güldemann 2019).

2.2 Bantu-Khoisan contact

Contact between migrating Bantu-speaking communities and resident communities speaking Kx'a, Tuu and Khoe-Kwadi languages resulted in extensive linguistic influence (Bostoen & Gunnink 2022; Pakendorf et al. 2017). The most salient Khoisan-derived feature in Bantu languages is the use of click phonemes; as clicks do not occur in Bantu languages outside Southern Africa, yet are a ubiquitous feature of Khoisan languages, their adoption in certain Southern African Bantu languages is a clear case of Khoisan influence (Vossen 1997; Sands & Güldemann 2009; Herbert 1990). However, while the ultimate Khoisan origin of clicks in Bantu is undisputed, not all Bantu languages necessarily adopted clicks directly from a Khoisan source. Once incorporated, Bantu click languages also passed this feature on

to other Bantu languages (Sands & Gunnink 2019). Not all Bantu languages spoken in southern Africa make use of clicks: Bantu click languages are mostly concentrated in the south-east, including most languages of the Nguni cluster as well as one Sotho language, Southern Sotho (Pakendorf et al. 2017); and in the south-west, where clicks occur in Kwangali, Manyo, Mbukushu, Yeyi and Fwe (Gunnink et al. 2015). In this paper, I show that the latter group also includes the Tjhauba variety of Kgalagadi.

Contact-induced changes from Khoisan languages other than clicks are more difficult to identify in Bantu languages. Certain other phonemes of apparent non-Bantu origin have been attributed to Khoisan influence, particularly in Xhosa (Lanham 1964). In terms of morphosyntactic changes, the development of nominal suffixes in Southern Bantu languages has been analyzed as a contact-induced grammaticalization (Güldemann 1999). Borrowing of morphological forms is seen in Xhosa (Louw 1976) and Yeyi (Gunnink 2022a). Lexical borrowing is more widely attested, e.g. in Xhosa (Louw 1977a), Zulu (Argyle 1986), but also in Bantu languages that did not adopt clicks, such as Herero (Meinhof 1910) and Tswana (Gunnink 2020a). The uneven and limited documentation of Khoisan languages is one factor that complicates the identification of Khoisan influence in Bantu. This also makes it difficult to identify the specific donor language even when such influence can reliably be established.

Cases of Khoisan influence on Bantu that could somewhat reliably be identified show that Bantu-Khoisan contact situations varied widely in space, time, and social circumstances. For instance, Tswana, a Bantu language spoken in most parts of Botswana and therefore in active contact with multiple Khoisan languages, has seen relatively little Khoisan impact: only 23 Khoisan loanwords were identified (Gunnink 2020a), and no clear cases of Khoisan influence in other domains, such as clicks, is reported for Tswana. This is in keeping with the modern contact situation in which Tswana is involved, where small, socially marginalized communities of Khoisan speakers shift to Tswana, a language with a much higher prestige and a large number of native speakers. This contrasts with, for instance, Xhosa, which has adopted a large inventory of click phonemes, as well as other potentially Khoisan-derived phonemes, in addition to many loanwords: this suggests a situation of intensive and prolonged contact. Cases of (relatively) early Khoisan influence on Bantu include the South-West

Bantu click languages, where many Khoisan loanwords seem to come from languages that are no longer spoken in the area or may even be extinct (Gunnink et al. 2015). Another such case are the Nguni languages of South Africa, where the adoption of clicks can be attributed to a single contact event taking place before the diversification of Nguni into different languages (Gunnink 2022b). On the other hand, at least some borrowings from the Khoisan language Khoekhoe into the Bantu language Xhosa can be attributed to the relatively recent past, as they specifically refer to Christian terms, which were introduced from Dutch missionaries via Khoekhoe-speaking interpreters at the end of the 18th century (Louw 1977b: 87).

2.3 The languages of the Ngamiland region of Botswana

The Tjhauba variety of Kgalagadi is spoken in the Ngamiland region in the northwest of Botswana. The landscape of this region is dominated by the Okavango delta, which covers most of the region, and forms a stark contrast with the mostly arid landscape that characterizes the rest of Botswana. Ngamiland is a linguistically and ethnically diverse region, hosting languages of different lineages, spoken by ethnically, culturally, and socio-economically diverse populations. In this section, I briefly outline the population history of the region and its modern sociolinguistic make-up.

Modern-day Ngamiland is home to small communities speaking different Khoisan languages, but the majority of modern inhabitants of Ngamiland speak one or more Bantu languages. The first (presumably) Bantu-speaking communities settled in the area in the second half of the first millennium (Wilmsen 2011; Denbow 2011; Tlou & Campbell 1997). It is unclear, however, whether they were ancestral to any of the modern-day Bantu-speaking groups living in the area. Of the modern-day Bantu languages still spoken in the area, Yeyi was probably the first to arrive, dating back to before 1750 (Tlou 1985: 12), possibly to 1650 (Mpho 1988, cited in Larson 1989: 25), or even 1600 in the eastern part of the area (Tlou & Campbell 1997: 138). Mbukushu-speaking communities entered Ngamiland from the north in the 19th century (Tlou 1985: 14). Around the same time, the Batawana, a Tswana group, migrated to Ngamiland from the South, and established their political, social and economic dominance in the area (Tlou 1985). This led to a process of language shift towards Tswana (particularly the Tawana variety) which continues up to today, and

involved populations speaking Yeyi, Mbukushu, Kgalagadi, and various Khoisan languages (Sommer & Vossen 2000; Vossen 1988; Nyati-Ramahobo 2000).

As for the Kgalagadi-speaking peoples of Botswana, their settlement history in Ngamiland is not well-known. Their linguistic affiliation with the Sotho-Tswana group (S30) suggest an origin far to the Southwest of Ngamiland. According to Tlou (1985: 11), Kgalagadi communities may have lived on the southern fringe of the delta for a long time. According to Chebanne and Monaka (2008: 140), Tjhauba communities were the first Kgalagadi-speakers in the delta, followed by newer communities speaking different Kgalagadi dialects. This conclusion is partially based on the large divergence of the Tjhauba variety with respect to other Kgalagadi varieties, and is confirmed here.

Khoisan-speaking communities in Ngamiland, as in most other parts of Southern Africa, are small, marginalized, and threatened by language shift. Hunter-gatherer communities have a very long history in the region (Tlou 1985), but how these prehistoric communities relate to present-day Khoisan speakers in the area is difficult to establish. In present-day Ngamiland, languages of the Kx'a and Khoe families are spoken. Speakers of Ju, a dialect cluster belonging to the Kx'a family, inhabit the north-western part of the region. The Ju variety they speak is described as closely related to Ju|'hoan as spoken across the border in Namibia (Sands 2010; Snyman 1997). Khoe languages spoken in Ngamiland include the Khwe cluster and Ts'ixa. Varieties belonging to the Khwe cluster are spoken throughout the Okavango delta, and include varieties such as ||Ani, Buga, ||Xom, ||Xoo and Buma (Fehn 2019a; Brenzinger 1998). Their speakers have also been referred to as Banoka (from Tswana *noka*, 'river') or River Bushmen (Tlou 1985). Another Khoe language, Ts'ixa, is spoken on the eastern edge of the delta (Fehn 2014), which may have a genealogical affinity to the Khwe cluster (Fehn 2018).

The Ngamiland is clearly a region where speakers of Bantu and Khoisan languages come into contact with each other. The linguistic effects of this contact situation have mainly been identified in Yeyi, a Bantu language that has acquired a large click inventory (Sommer & Voßen 1992; Fulop et al. 2003), but has also adopted certain verbal affixes through contact with Khoe (Gunnink 2022a). Mbukushu, a Bantu language that extends beyond Botswana into Namibia, Angola

and Zambia, has adopted a far smaller number of clicks, but has also developed head-final nominal compounds under influence of Khoisan contact (Gunnink et al. 2015). Tawana, the Tswana variety spoken in the region, is not well-documented, but a number of Khoisan loanwords identified in Tswana are specific to Tawana (Gunnink 2020a: 36). Furthermore, relationships between speakers of various Khoisan and Bantu languages in Ngamiland have been reported to be close and amicable; for instance, both Khwe and Ts'ixa speakers consider the Yeyi as their “cousins” (Fehn 2014: 335; Boden 2009: 35). Some Tjhauba speakers expressed an even stronger bond with the ||Anikhoë, considering the ||Anikhoë and the Tjhauba to be one people. This shows that Bantu-Khoisan contacts in the Ngamiland region were not only intensive, but also, at least for certain ethnic groups, involved a certain degree of social equality.

3 The Tjhauba variety of Kgalagadi

Tjhauba is considered both by its speakers and by linguists as a regional variety of the Bantu language Kgalagadi. The Kgalagadi language is also known as Shekgalagadi, *she-* being a noun class prefix indicating ‘language’. The name of the language is also spelled Kgalagari, reflecting the fact that in most varieties of Kgalagadi, /l/ is realised as [r] before a high vowel /i/ or /u/, unlike in Tswana, where /l/ is realised as [d] before high vowels. The realisation Kgalagadi is thus somewhat of an exonym, reflecting the Tswana pronunciation of the name.

Kgalagadi (S311) is part of the Sotho-Tswana cluster, together with Tswana, Northern and Southern Sotho, among others. A recent lexicon-based phylogenetic classification of Southern Bantu languages confirmed the unity of the Sotho-Tswana cluster, and classified Kgalagadi within Sotho-Tswana as a sister clade to Southern Sotho, Lozi, Tswana and Tawana (Gunnink, Chousou-Polydouri & Bostoen 2023). Furthermore, it classified the Ngologa variety of Kgalagadi, as described by Lukusa & Monaka (2008), and Tjhauba as direct sister branches, confirming the close relationship between these two varieties. Better documentation of other Kgalagadi varieties would increase our understanding of how Tjhauba, Ngologa, and other Kgalagadi varieties relate to each other.

There is considerable variation within Kgalagadi, which is partly due to varying degrees of contact with different languages. The Ngologa variety, spoken in Southwestern Botswana, is often presented as being the most conservative and “pure” (Carl Grulke, p.c.), having been influenced less by other languages (Lukusa & Monaka 2008: 7). As such, most work on Kgalagadi is based mostly or totally on the Ngologa variety (Lukusa & Monaka 2008; Monaka 2005; Neumann 1999), or on the geographically close Shaga variety (Dickens 1987; Dickens 1978; Dickens 1984a; Dickens 1986; Monaka 2005).

The most northwestern variety of Kgalagadi is called Tjhauba (or Shetjhauba), the area where it is spoken is called Ritjhauba (Monaka 2013: 46), and its speakers are referred to as Baritjhauba or Batjhauba (Chebanne & Monaka 2008: 140). Tjhauba is clearly distinct from other Kgalagadi varieties, as indicated by a large degree of lexical variation and the use of click phonemes, which are rare in other Kgalagadi varieties (Lukusa & Monaka 2008: 10; Monaka 2013: 46). Tjhauba speakers furthermore confirm that mutual intelligibility with other Kgalagadi varieties is not perfect, and that speakers of other Kgalagadi varieties may struggle to fully understand Tjhauba.

Tjhauba is spoken in three villages in northwestern Botswana, Samochima, Ncamasere and Xaoga¹, situated some twenty kilometers apart, as seen in the map in Figure 1. In Samochima, Tjhauba is spoken in addition to the Bantu language Mbukushu, and Mbukushu appears to be the more commonly used language. In Ncamasere, Tjhauba also exists alongside Mbukushu, though unlike in Samochima here Tjhauba is not dominated by Mbukushu. In Xaoga, Tjhauba is spoken in addition to the \parallel Ani variety of Khwe, a language of the Khoe family, and the name of the village is of Khwe origin as well, meaning ‘place of spears’ (from \parallel xàó ‘spear, bullet’ (Kilian-Hatz 2003: 221) and a derivational suffix $-xa^2$). Some Tjhauba speakers are also fluent in Khwe, and there are mixed Tjhauba/Khwe marriages, which contributes to this pattern of multilingualism.

1 The name of the village Ncamasere is also written as Nxamasere or Xamasere. Tjhauba speakers I interviewed invariably realised it as [ɲ]amasere], e.g. with a nasalised dental click. The name of the village Xaoga can also be transcribed as Xhauga. Tjhauba speakers I interviewed realised it as [ʰauχa] or [ʰauχa], e.g. with an aspirated dental or lateral click.

2 Note, however, that an alternative interpretation ‘place of sable antelopes’ is also possible, cf. \parallel xáó ‘sable antelope’, (Kilian-Hatz 2003: 220).



Figure 1: Map of the Kgalagadi-speaking area, based on Andersson and Janson (1997: 47).

As seen in the map in Figure 1, the Tjhauba-speaking area is geographically isolated with respect to other Kgalagadi varieties, the closest of which are spoken around Maun, some two hundred kilometres to the southeast. In addition to Mbukushu and Khwe, Tswana also plays an important role in the Tjhauba-speaking area, as the language of education, government, and general prestige, and virtually all Tjhauba speakers I met were also fluent in Tswana.

The Kgalagadi language is endangered (Lukusa 2000; Monaka 2013), and this is also true for the Tjhauba variety: most speakers are over 40, and children growing up in households where Tjhauba is spoken generally do not acquire the language, but rather grow up speaking Tswana and/or Mbukushu. The current situation suggests that within one or two generations, Tjhauba will have become extinct.

The data presented in this paper are the result of three weeks of fieldwork in Samochima in 2019. The data that were collected consist of a lexical database of some 900 items, as well as elicited phrases and two short transcribed and translated texts. The main consultant who contributed to this fieldwork, Mr. Kamogelo Mokgosi, is a native speaker of Tjhauba in his twenties living in Ncamasere,

who is also fluent in English and Tswana. As most fluent speakers of Tjhauba were older, shorter interviews were also conducted with five elderly speakers of Tjhauba from Ncamasere and Xauga. I would like to express my gratitude to all the Tjhauba speakers who contributed to this study.

4 Tjhauba in comparison with other Sotho-Tswana languages

Although Tjhauba is perceived by both its speakers and outsider linguists as a variety of Kgalagadi, it is clearly one of the most divergent varieties of the language. This is partly the result of contact-induced changes, as discussed in section 5. There are also some changes that set Tjhauba apart from other Kgalagadi varieties that are not (recognizably) due to language contact, but rather appear to be internally motivated. In this section, I survey some of these changes by comparing Tjhauba with the Ngologa variety of Kgalagadi, as described by Lukusa & Monaka (2008), as well as to other languages of the wider Sotho-Tswana cluster.

One of the diachronic developments that have caused Tjhauba to diverge from other Kgalagadi varieties is seen in the reflexes of Proto-Bantu *n. Most Kgalagadi varieties have maintained *n as /n/, and this reflex is also seen in other languages of the Sotho-Tswana cluster, such as Tswana and Northern Sotho. In Tjhauba, however, *n has shifted to /l/, as shown in Table 1, which compares Bantu reconstructions with *n with their reflexes in selected Sotho-Tswana languages.

Table 1: Reflexes of *n

Bantu reconstruction ³	Tswana	Northern Sotho	Ngologa	Tjhauba
* <i>nòn</i> ‘be fat, soft, palatable’	<i>nòn-à</i> ‘become fat’	<i>nòn-à</i> ‘become fat’	<i>non-a</i> ‘gain weight’	<i>lòl-à</i> ‘gain weight’
* <i>kónò</i> ‘arm’	<i>sì-kxónò</i> ‘elbow’	<i>sè-kx^hónò</i> ‘elbow’	<i>ʃi-q^hono</i> ‘elbow’	<i>ʃi-qxóló</i> ‘elbow’
*- <i>an</i> ‘associative (reciprocal)’	- <i>an</i> ‘reciprocal’	- <i>an</i> ‘reciprocal’	- <i>an</i> ‘reciprocal’	- <i>al</i> ‘reciprocal’
* <i>púan</i> ‘resemble’	<i>ts^hwán-à</i> ‘resemble’	<i>swán-à</i> ‘resemble’	<i>tʃ^hwan-a</i> ‘resemble’	<i>tʃ^hwál-à</i> ‘resemble’

The change of *n to /l/ in Tjhauba clearly sets this variety apart from the Ngologa variety of Kgalagadi. In addition, there are also innovations in Ngologa that are not shared by Tjhauba. Ngologa has palatalized *nt to /c^h/, and *nd to /c/. Tjhauba, on the other hand, has not undergone this palatalization, but has retained the alveolar place of articulation, which is also maintained in other Sotho-Tswana languages. Note that both Tjhauba and Ngologa, as well as the other Sotho-Tswana languages, have lost prenasalisation and shifted voiced stops to voiceless, while adding aspiration to the voiceless stops, a process known as “strengthening” (Dickens 1984b).

Table 2: Reflexes of *nt and *nd

Proto-Bantu	Tswana	Northern Sotho	Ngologa	Tjhauba
* <i>ntò</i> ‘person’	<i>mo-tho</i> ‘person’	<i>mò-thò</i> ‘person’	<i>mu-c^hu</i> ‘person’	<i>mù-t^hù</i> ‘person’
* <i>túnd</i> ‘teach’	<i>rut-a</i> ‘teach’	<i>rút'-à</i> ‘teach’	<i>ruc-a</i> ‘teach’	<i>rùt-à</i> ‘teach’
	<i>tau</i> ‘lion’	<i>t'áú</i> ‘lion’	<i>cau</i> ‘lion’	<i>tàú</i> ‘lion’
* <i>bíndi</i> ‘liver’	<i>se-bete</i> ‘liver’	<i>sè-βét'è</i> ‘liver’	<i>ʃi-bici</i> ‘liver’	<i>ʃi-bítí</i> ‘liver’

3 Throughout this section, Bantu reconstructions come from BLR 3 (Bastin et al. 2002), Tswana data come from Cole and Moncho-Warren (2012), Northern Sotho data come from Kriel, van Wyk and Makopo (1989), with transcription conventions based on Kotzé (1989), and Ngologa data come from Lukusa and Monaka (2008). The transcription has been adapted to IPA to facilitate comparison.

Tjhauba also differs from Ngologa in certain aspects of its morphology. Both Ngologa and Tjhauba make use of a nominal suffix to express location. In Ngologa, this suffix consists of a single velar nasal *-ŋ* (Neumann 1999; Lukusa & Monaka 2008). In Tjhauba, the locative suffix only consists of lengthening of the noun's final vowel, as shown in (1)–(2). When the noun's final vowel is /a/, lengthening combines with a change of /a/ to /e/ to express the locative, as shown in (3)–(4).

- | | | | |
|-----|--|-----|---|
| (1) | <i>mí-zì-ì</i>
NP4-village-LOC
'at the villages' | (2) | <i>ø-ṯhòtó-ò</i>
NP9-house-LOC
'at the house' |
| (3) | <i>ø-nòqχé-è</i> < <i>nòqχá</i>
NP9-river-LOC
'at the river' | | |
| (4) | <i>ø-tsìlè-è</i> < <i>tsìlà</i>
NP9-road-LOC
'at the road' | | |

A similar nominal locative suffix is attested in other Sotho-Tswana languages. In Tswana, for instance, the locative suffix has the shape *-eŋ*, although the vowel /e/ is lost in all cases except when the suffix attaches to a noun ending in a vowel /a/ (Cole 1955: 342). The vocalic properties of the Tswana suffix are similar to the realisation of the locative suffix in Tjhauba, whereas the use of the consonant /ŋ/ shows similarities to the realisation of the locative suffix in Ngologa.

5 Contact-induced change in Tjhauba

Many of the properties that set Tjhauba apart from its closest genetic relatives are the result of contact-induced changes. In this section, I discuss contact influence in Tjhauba, focusing on its inventory of click phonemes in section 5.1, the words in which clicks occur in section 5.2, and loanwords without clicks in section 5.3.

5.1 The click inventory of Tjhauba

Language contact has played an important role in shaping the Tjhauba language, most notably through the introduction of click phonemes.

The Shaga variety of Kgalagadi is reported to have two click phonemes, /ŋ/ and /!ŋ/, occurring in (at least) two words: /ŋ|ŋú/ ‘small’ and /muŋ!ŋú/ ‘big intestine’ (Dickens 1987: 300). Lukusa and Monaka (2008: 10) list two click phonemes in the Ngologa variety of Kgalagadi, bilabial /⊙/ and dental /|/, but no examples are given, possibly because the phonemes are rare in the language. Tjhauba, however, has previously been reported to be much richer in click phonemes (Monaka 2013: 46; Lukusa & Monaka 2008: 10). My recent fieldwork confirms this, and provides data for a first overview of click sounds used in Tjhauba (Table 3).

Table 3: Click inventory of Tjhauba

	Voiceless	Voiced	Nasal	Uvular fricative
Dental		g ⁴	ŋ	χ ~ ^h
Alveolar	!	g!	ŋ!	!χ ~ ! ^h
Lateral		g	ŋ	χ ~ ^h

This analysis is based on a total of 51 Tjhauba click words, presented in Table 4 in section 5.2. All click words were collected from a single male speaker in his twenties, and a subset was cross-checked with five elderly speakers. Unfortunately, the low frequency of clicks in Tjhauba and the relatively wide phonetic variation in clicks make it difficult to establish which properties of clicks are phonemic. Given the small amount of data, minimal pairs are not available to prove the contrast between all different click realisations. However, the near-minimal pairs in (5)–(7) suggest that the voiceless, voiced, nasal and uvular fricative dental clicks are contrastive.

- (5) /| - |χ/
 χò-|áb-á mò-|χábá
 INF-empty_dish-FV NP₃-fig
 ‘to empty a dish’ ‘fig tree’

4 Voicing and nasality on clicks can also be transcribed using diacritics, but the more common practice in click studies is to use a preceding <g> to mark voicing, and a preceding <n> to mark nasality (see Sands (2020) for an overview of transcription conventions of clicks, and the complexities associated with transcribing diacritics on clicks).

- (6) /| - ŋ|/
 χò-|áí χò-ŋ|àì
 INF-be_weak INF-tell
 ‘to be weak’ ‘to tell’

- (7) /| - g|/
 |úmú ‘mongongo nut’ g|ùmùχwè ‘owl’

Glottalisation of clicks occurs phonetically, but does not appear to be contrastive, because glottalisation only affects clicks preceded or followed by a syllable containing a nasal consonant, as in (8)–(12).

- (8) χù-|?ám-á (9) m̀-|?árà
 INF-lick-FV NP₃-tree_sp
 ‘to lick’ ‘tree sp. (not to be put in fire or
 cattle will die)’

- (10) |?ámátátì (11) m̀-|?ítj|á ~ m̀-|ítj|á
 ‘catfish sp.’ NP₃-date
 ‘fruit of the Senegal date palm
 (*Phoenix reclinata*)’

- (12) m̀-ŋ|àù|árá ~ m̀-ŋ|àù|?árá
 NP₃-tree_sp
 ‘tree sp.’

However, two words are attested where a glottalised click is not preceded or followed by a nasal consonant, as listed in (13)–(14).

- (13) |?aa ‘no’ (14) |?árò ‘wild date palm (*Phoenix
 reclinata*)’

In other languages, glottalised clicks are often accompanied by some nasal airflow as well (Sands 2020: 24). In combination with the preference of glottalised clicks for a nasal environment (although this rule is not without exception), glottalisation of clicks in Tjhauba is possibly not contrastive, but induced by a preceding or following nasal. It should be noted, however, that nasalisation without glottalisation does appear to be contrastive, because nasal clicks are not limited to a position before or after a nasal consonant, as shown in (15)–(17).

- (15) *bù-ŋ/ú*
NP₁₄-small
'youth'
- (16) *χù-ì-ŋ/óŋ/óbèl-à*
INF-MID-tiptoe-FV
'to walk on tiptoe'
- (17) *χù-ŋ/ùqχùl-à*
INF-uproot-FV
'to uproot'

Clicks with a uvular fricative release appear to be phonemic, as shown by their contrast with plain voiceless clicks in (5) above. However, the uvular fricative release is not always strongly fricated, and can also be realised as aspiration, as in (18). Only five words containing a click with a uvular fricative release are attested (see 47–51 in Table 4), making this the most infrequent click realisation in Tjhauba.

- (18) *mù-/χábá ~ mù-/hába*
NP₃-fig
'fig tree'

Tjhauba exhibits dental, alveolar and lateral click types, but the evidence for their contrast is limited, and there is extensive interspeaker variation in the realisation of clicks. The youngest speaker used dental clicks only, with one exception listed in (19).

- (19) *mù-!χúú ~ mù-||χúú*
NP₁-!Xung
'!Xung person'

Although this realisation is undoubtedly related to the self-designation of the ethnic group in question, which also uses a click other than the dental, it is surprising that the Tjhauba speaker alternates between an alveolar and a lateral click. Furthermore, Tjhauba speakers are in even closer contact with the ||Anikhwe, whose ethnonym contains a lateral click, yet in the speech of this particular speaker, their name is realised with a dental click, as seen in (20).

- (20) *bà-/ànikhwè*
NP₂-||Anikhwe
'||Anikhwe people'

Elder speakers showed more variation in click types, producing dental, alveolar and lateral clicks. Certain words were consistently realised with the same click type by all elder speakers, both in repe-

titions by the same speaker, as well as repetitions of the same token by different speakers. Some examples are given in (21).

(21) No inter-speaker variation (in elder speakers)

(a) Dental clicks

mà-g/í

NP₆-waterlily

‘edible waterlily (*Nymphaea caerulea*)’

ŋ/ú ‘small’

(b) Alveolar clicks

mù-!’úní, mù-ŋ!’òní

NP₃-palm

‘palm tree (*Hyphaene petersiana*)’

(c) Lateral clicks

g//ǎbǎ ‘mud’

These data from elderly Tjhauba speakers suggest that they do contrast click types. In addition, however, there is also some inter-speaker variation in the realisation of click types by different elder speakers, as illustrated in (22).

(22) Inter-speaker variation in the realisation of click types

(a) *g/ǎχǎrǎ, g/ǎχǎrǎ, g!ǎχǎrǎ* ‘adam’s apple, throat’

(b) *mù-g/úmà, mù-g//úmà, mù-g!úmà, mù-g//ómà, mù-g!ómà*

NP₃-muscle

‘muscle (esp. biceps)’

Conclusions on the phonemic status of click type are therefore very tentative. On the one hand, the interchangeability of click type, both between speakers and within a single speaker, seems to suggest that click types are in free variation. However, the restriction of interchangeability to particular words, and the consistent realisation of words with a particular click type across tokens by the same or different speakers, suggests that click type is used contrastively. The preference for dental clicks by the single younger speaker who contributed to this study is an indication that Tjhauba is moving from a system where click type is used contrastively to one where all clicks

are realised as dental. A similar preference for the dental click is seen in the South-West Bantu click languages Fwe, Mbukushu, Manyo and Kwangali, spoken in northern Namibia, northwestern Botswana and southwestern Zambia, where there is free variation in click type but the dental click is the most common (Bostoen & Sands 2012; Gunnink et al. 2015; Gunnink 2020b).

Variation in the realisation of clicks is also seen in occasional interchangeability of clicks with non-clicks, as shown in (23).

(23) Variation between clicks and non-clicks

- | | |
|--|---|
| (a) <i>dì-àbú, dì-k'àbú</i>
NP ₁₀ -shoe
'shoes' | (b) <i>/?árò, ts'árò</i> 'palm tree' |
| (c) <i>mà-glú, mà-g//ú, mà-gú</i>
NP ₆ -waterlily
'waterlilies' | (d) <i>qχàχàg/ípù, χàχàg/ípù</i> 'bat' |

Only the words listed in (23) are recorded with and without a click realisation. Interchangeability between clicks and non-clicks is seen in speakers of all ages. Despite the small amount of data, it is clear that possible replacements of clicks are plosives or affricates, and that the voicing of the click is unchanged in the non-click replacement. This is similar to the interchanging of clicks and non-clicks in Fwe, which also maintains the voicing (and nasality) of the click in the non-click replacement (Gunnink 2020b), although click/non-click interchanging is much more productive in Fwe than what is attested in Tjhauba.

5.2 The click lexicon

Only 51 click words were collected out of an approximately 900 word lexical database. Data collection was targeted towards clicks, so assuming that approximately 5% of the Tjhauba lexicon consists of click words is probably an overstatement. All recorded click words are listed in Table 4, including all different realisations that were recorded, as well as correspondences in other languages. These potential source words have been copied in their original transcription, with the exception of Naro, Manyo and Yeyi, which have been retranscribed according to the IPA. Khwe data are from Kilian-Hatz (2003), Ts'ixa data are from Fehn (2019b), Naro data are from Visser

(2001), Ju|'hoan data are from Dickens (1994), which represents the variety of Ju|'hoan spoken in the Nyae Nyae area, Manyo data are from Möhlig and Shiyaka-Mberema (2005), and Yeyi data are from various sources specified in the table. Furthermore, data are provided from the Khoe-Kwadi language Khoekhoe, spoken in Namibia (Haacke & Eiseb 2002); from North-Western !Xun (König & Heine 2008) and the !Xun dialects documented in Snyman (1997), spoken across northern Namibia and southern Angola. These languages are not likely to have been in contact with Tjhauba due to their geographic distribution, but their linguistic relatives are. Therefore, an attestation of a potential source word in Khoekhoe does not necessarily indicate Khoekhoe as the direct donor language, but does point towards a general Khoe origin of the particular lexeme. Similarly attestations of potential source words for Tjhauba click words in !Xun varieties spoken outside the general Tjhauba-speaking area could be suggestive of a general !Xun origin. For the same reason, reconstructions from Proto-Khoe (or its later subbranches) are given where possible, to support a general Khoe origin. This approach is especially relevant given the gaps in the documentation of Khoe and !Xun varieties spoken in close proximity to Tjhauba.

Table 4: Tjhauba click words

	Lexeme	Part of speech	Translation	Correspondences in other languages
1.	//úmú !úmú /úmú	n	'mongongo nut (<i>Schinziophyton rautanenii</i>)'	Khwe /qóm 'manketti tree, nut', Khoekhoe /gòm-s 'manketti fruit/kernel'
2.	mà-é	n	'waterlily sp.'	Yeyi ma-#e 'edible water plant' (Chebanne et al. 2007: 28)
3.	ʃi-áχà	n	'tree sp.'	
4.	!ùbwé	n	'flower sp.'	

5.	<i>/àbú</i> <i>//àbú</i> <i>k'àbú</i>	n	'shoe'	Khwe <i>//àvò</i> 'shoe', Ts'ixa <i>//ābō</i> 'shoe, sandal', Naro <i>n//àbo</i> 'shoe', Proto-Khoekhoe <i>*//habo</i> , Proto-Non-Khoekhoe/Proto-West-Khoe <i>*//nabo</i> / <i>*//abo</i> , Proto-East-Khoe <i>*//abo</i> 'Sandale'
6.	<i>χù-úb-á</i>	v	'to kiss'	Khwe <i>//'oεε</i> , <i>//'óε</i> 'to kiss', Ts'ixa <i>//ʔóbē</i> 'to kiss', Naro <i>//'obè</i> 'to kiss', !Xun <i>/'òbǎ</i> 'kiss' ⁵ , North-Western !Xun <i>/'òbā</i> 'kiss', Proto-West-Khoe <i>*//ʔobe</i> 'küssen'
7.	<i>χù-òw-á</i>	v	'to be tasteless'	Khwe <i>≠hòá</i> 'be tasteless', Khoekhoe <i>≠opo</i> 'lukewarm, tasteless'
8.	<i>χò-áb-á</i>	v	'to throw food out of a dish'	Ts'ixa <i>//k'ápà</i> 'manner in which sticky food is served on a plate'
9.	<i>χò-áí</i>	v	'to be weak, lazy'	Khwe <i>//hǎǎ́</i> , <i>//xǎǎ́</i> 'be meagre, thin; be weak, feeble'
10.	<i>χù-òp-à</i>	v	'to be wet (of animals)'	Khwe <i>/'ó:</i> 'lay in water to soften', Naro <i>/'óó/'òò</i> 'make a little bit wet'

5 This form is attested for all !Xun varieties documented by Snyman (1997), except the Cuando/Cuito varieties (classified as Northern !Xun by Sands 2010) and Lister farm !Xun (classified as South-Eastern !Xun by Sands 2010).

11.	<i>mò-ànik'wè</i>	n	' Anikhwe person'	Khwe <i> Àní-khwè</i> ' Ani-Khwe'
12.	<i>/ʔárà</i> <i>ts'árà</i>	n	'Senegal date palm (<i>Phoenix reclinata</i>)'	
13.	<i>/ʔaa</i>	int	'no'	
14.	<i>χò-ʔám-á</i>	v	'to lick'	Khwe <i>/'óama</i> 'lick out with index finger', Manyo <i>n/âma</i> 'taste food with finger', !Xun <i>n òm'm</i> 'lick out' ⁶
15.	<i>/ʔámátátì</i> <i> ʔámátátì</i>	n	'catfish'	
16.	<i>mò-ʔàrà</i> <i>mò- ʔàrà</i> <i>mò-!ʔàrà</i>	n	'tree sp. (not to be put in fire or cattle will die)'	
17.	<i>mò-ʔíŋ/á</i> <i>mò-íŋ/á</i>	n	'fruit of the Senegal date palm (<i>Phoenix reclinata</i>)'	Yeyi <i>zi-ŋ/íŋ/ga</i> 'fruits of the wild date palm' (Lukusa 2009: 277)
18.	<i>mò-ŋ/àù/árá</i> <i>mò-ŋ/àù/ʔárá</i> <i>ŋ-ŋ/àù/àrà</i>	n	'shrub sp. (eaten by goats)'	
19.	<i>mò-ŋ/ʔwĩ</i> <i>mò-ŋ/ʔwĩ</i>	n	'tree sp.'	

6 This form is attested in all !Xun varieties documented by Snyman (1997), except the Cuando/Cuito varieties (classified by Sands 2010 as Northern !Xun).

20.	<i>mò-ŋ!ʔòní</i> <i>mò-!ʔòní</i>	n	‘palm tree (<i>Hyphaene</i> <i>petersiana</i>)’	Yeyi <i>mù-n!ʔùní</i> ‘fruit of the date palm (<i>Phoenix reclinata</i>)’ (Sommer & Voßen 1992: 33), Ts’ixa <i>!ʔùní</i> ‘ <i>Hyphaene</i> <i>ventricosa</i> ’ (Vossen 2011: 195), Buga <i>!ʔùní</i> ‘ <i>Hyphaene</i> <i>ventricosa</i> ’ (Vossen 2011: 195), Khoekhoe <i>!ʔùní</i> ‘makalani fruit/nut’
21.	<i>ŋ/ú</i>	adj	‘small’	
22.	<i>mò-ŋ!á</i>	n	‘paper- bark thorn (<i>Vachellia</i> / <i>Acacia siebe-</i> <i>riana</i>)’	Yeyi <i>ù-n!à</i> ‘paper- bark thorn (<i>Acacia</i> <i>sieberiana</i>)’ (field notes), Ju’hoan <i>n!án</i> ‘blue thorn acacia (<i>Acacia</i> <i>erubescens</i>)’, <i>n#aqng</i> ‘plate thorn acacia (<i>Acacia fleckii</i>)’, North-Western !Xun <i>!!àqñ</i> ‘plate thorn (<i>Acacia fleckii</i>)’
23.	<i>mò-ŋ/àúbàlà</i> <i>mò-ŋ//àúbàlà</i>	n	‘leadwood (<i>Combretum</i> <i>imberbe</i>)’	
24.	<i>ʃi-ŋ/úkùmà</i>	n	‘plant sp., similar to sweet potato’	
25.	<i>tʃitʃiríŋ/ùmè</i>	n	‘fruit of river tree sp.’	
26.	<i>ŋ/áúbè</i>	n	‘plant sp.’	

27.	χò-η/àì χò-η//à-él-à	v	‘to tell’	Khwe <i>n//áà</i> ‘talk to, narrate, tell, say, inform (sb)’, Naro <i>n//ae</i> ‘tell’, Ts’ixa <i>n//gae</i> ‘sing’, Yeyi [<i>i-n!ee</i> ‘story’ (Lukusa 2002: 128), North-Western !Xun <i>n//àè</i> ‘tell, say to, mention; yell (of women when dancing), sing (of birds)’, Proto-Khoe * <i>ǀa</i> , Proto-Non-Khoekhoe * <i>ǁnā</i> , * <i>ǁã</i> ‘erzählen/mitteilen’
28.	χù-ì-η/òkódèlà	v	‘to lean (onto, against)’	
29.	χù-ì-η/óη/óbèl-à	v	‘to walk on tiptoe’	North-Western !Xun /òè/òè//ú ‘stand on one’s toe tips’
30.	χò-η/ùqχùl-à	v	‘to uproot’	
31.	ǰi-g/í	n	‘candlepod thorn (<i>Acacia hebeclada</i>)’	
32.	sì-g/ànànà	n	‘scented thorn (<i>Vachellia nilotica</i>)’	
33.	sì-g//úkùmù	n	‘fruit sp.’	
34.	g/áìg/áì g//áìg//áì g//éìg//é g/áìg/áì	n	‘blacksmith lapwing (<i>Vanellus armatus</i>)’	Ju’hoan //’áí//’áí ‘blacksmith plover, <i>Hoplopterus armatus</i> ’
35.	g//íìg/ítfà	n	‘grass sp.’	

36.	<i>g/ínìg/á</i>	n	‘sp. of water plant’	
37.	<i>g/ḡbḡ</i> <i>g//ḡbḡ</i>	n	‘mud’	Khwe <i>ḡqóvo</i> ‘soil, clay; beer grounds’, Ts’ixa <i>g//óbò</i> ‘mud’, Khoekhoe <i>ḡgḡà-b</i> ‘mud’, Yeyi <i>ì-g//óbò</i> ‘mud’ (Sommer 1995: 408)
38.	<i>g/ḡḡḡrḡ</i> <i>g//ḡḡḡrḡ</i> <i>g/ḡḡḡrḡ</i> <i>g!ḡḡḡrḡ</i>	n	‘Adam’s apple, throat’	Ts’ixa <i>ḡg//ḡḡ-xḡrḡ</i> ‘larynx, windpipe’, Lister Farm !Xun <i>!hùgùrù</i> ‘adam’s apple’, Khwe <i>gḡ-xòrḡ</i> ‘windpipe, trachea’
39.	<i>g/wùí</i> <i>g/ùí</i> <i>g/ùí</i>	n	‘edible waterlily (<i>Nymphaea caerulea</i>)’	Ju!’hoan <i>g/hḡè</i> ‘edible water lily (<i>Nymphaea caerulea</i> , <i>N. capensis</i> , <i>Nymphoides indica</i>)’, Yeyi <i>ma-ḡwii</i> ‘roots from an edible plant’ (Chebanne et al. 2007: 27)
40.	<i>mà-g/íbírò</i>	n	‘leaves of <i>Nymphaea caerulea</i> ’	
41.	<i>g/ḡmḡḡwè</i> <i>g/ḡmḡk^hwè</i>	n	‘owl’	

42.	<i>g/wèé</i> <i>g//wèé</i>	n	‘tortoise’	Khwe //góé ‘leopard tortoise’, Ts’ixa <i>g//óé</i> ‘leopard tortoise (<i>Stigmochelys pardalis</i>)’, Naro <i>g//ðé</i> ‘leopard tortoise’, Ju ’hoan <i>g//ðé</i> ‘tortoise (large sp.)’, Khoekhoe //noe-b ‘leopard tortoise’
43.	<i>mà-g!ú</i> <i>mà-g//ú</i> <i>mà-gú</i>	n	‘edible waterlily (<i>Nymphaea lotus</i>)’	
44.	<i>mù-g!èbè</i>	n	‘large feverberry (<i>Croton megalobotrys</i>)’	
45.	<i>mó-g/wàá</i> <i>mù-g//wáá</i> <i>mó-g/wàá</i>	n	‘waterberry (<i>Syzygium cordatum</i>)’	
46.	<i>mù-g!ómà</i> <i>mù-g//ómà</i> <i>mù-g!ómà</i> <i>mù-g//ómà</i> <i>mù-g!ómà</i>	n	‘muscle (esp. biceps)’	Yeyi <i>mu-g!uma</i> ‘upper arm’ (Lukusa 2002: 132), Ju ’hoan <i>g//kóm</i> ‘upper arm’, North-Western !Xun !ðmā ‘arm’, !Xun <i>g//x’óm</i> , <i>g!òmá</i> ‘upper arm’
47.	<i>mù-!xúú</i> <i>mù-//xúú</i>	n	‘!Xung person’	Ju ’hoan !Xùún ‘!Kung person’
48.	<i>mù-!xábá</i>	n	‘fig tree (<i>Ficus sycomorus</i>)’	Khwe /xává ‘sycamore fig (<i>Ficus sycomorus</i>)’

49.	<i>qχàχàg/ípù</i> <i>/χàχàg/ípù</i>	n	‘bat’	<i>Yeyi u-mpapag/ípwi</i> ‘bat’ (Lukusa 2002: 137), <i>mpápà-g/ípí</i> ‘bat/small bird’ (Sommer & Voßen 1992: 30)
50.	<i>χò-/χàdálàl-à</i>	v	‘to sit dis- persed’	
51.	<i>bó-kù/χùnì</i>	n	‘amaranthus’	

Tjhauba click words are strongly clustered in the semantic domain of flora, and to a lesser extent, fauna. 26 click words refer to botanical species or parts thereof, and five click words refer to species of animals. Plants growing in and along the water are especially well-represented, including four terms related to species of waterlily. Another term for a species of waterlily is referred to with a Khwe loanword that does not contain a click (see (25a) in section 5.3). Waterlilies, and especially their starchy roots, form an important staple food for Tjhauba speakers in times of famine, when the roots replace cultivated crops such as millet, sorghum or maize.

24 out of 51 click words correspond to click words in another language. Table 5 summarizes the number of source words for Tjhauba click words found in each language.

Table 5: The sources of Tjhauba click words

Source language	Number of puta- tive loans
Khoe-Kwadi	
Khwe	13
Ts’ixa	6
Naro	5
(Khoekhoe)	5
(Proto-Khoe)	3
Kx’a	
Ju ’hoan	6
(Other !Xun)	6
Bantu	
Yeyi	8

Manyo	1
-------	---

However, identifying the ultimate source language is not straightforward, for a number of reasons. Firstly, not all potential source languages are (well) documented. The actual donor language of some Tjhauba click words may be a language for which no data are available, or a documented language in which the particular lexeme that provided the source for the Tjhauba borrowing is undocumented. This is especially the case for click words whose etymology could only be found in languages not known to have been in contact with Tjhauba, or reconstructed languages. Secondly, some Tjhauba click words have potential sources in multiple languages. Some source words are shared across multiple languages of the Khoe family, suggesting this sharing is due to inheritance, as these languages are (closely) related. For instance, there are five Tjhauba click words with a possible source in Naro, but these words also have possible sources in Ts'ixa and/or Khwe, which are phonologically and semantically an equally good fit. Furthermore, Naro is spoken far to the south of where Tjhauba is spoken, and there is currently no direct contact between Tjhauba and Naro speakers. It is therefore likely that the putative Naro influence in Tjhauba is in fact the result of influence from another Khoe language⁷.

Some source words are also shared by unrelated languages, however: by the Bantu languages Manyo and Yeyi and the Khoe languages Khwe, Naro, Ts'ixa and Khoekhoe (see 14 and 27), by the Bantu language Yeyi and the Kx'a language Ju|'hoan (see 22 and 46), or by the Khoe languages and the Kx'a language Ju|'hoan (see 42). As Tjhauba also shares click words with Yeyi, Ju|'hoan, Khwe and Ts'ixa that are not shared with other languages, contact with these languages is still likely to have taken place. Manyo shares only one click word with Tjhauba, which is also attested in the Khoe language Khwe. Manyo speakers are not currently in contact with Tjhauba speakers, as Manyo is spoken further northwest in Namibia. This suggests that direct contact between Manyo and Tjhauba most likely did not take place.

7 Certain shared tonal patterns and lexical isoglosses between Naro and ||Ani may suggest older contact or migration (Fehn 2019a). If speakers of Naro or a related language once lived further north, this may explain some of the apparent Naro influence found in Tjhauba.

Loanwords with clicks have undergone some phonological and morphological adaptation in Tjhauba. Morphological adaptation of nouns involves the addition of a noun class prefix. Nouns seem to be assigned to a noun class based on their semantics, e.g. words for trees are assigned to class 3 (using the prefix *mu-*), but those for smaller trees or shrubs to class 7 (using the prefix *si-/ji-*). Words for plants and animals typically appear in the prefixless class 1a. Words referring to humans are assigned to class 1 (using the prefix *mu-*). These patterns mostly follow tendencies for noun class semantics also found in native Tjhauba vocabulary (Gunnink 2022c). The addition of a noun class prefix is expected for borrowings from Kx'a or Khoe languages, as these do not have a noun class system similar to Tjhauba. However, for borrowings from Yeyi, another Bantu language, another option is the maintenance of the original noun class prefix, or its change into a phonologically similar prefix in Tjhauba. While this is the case for some loans (e.g. 20, 46), in others a prefix of the semantically appropriate noun class seems to have been used (e.g. 17, 22).

Morphological adaptation of verbs includes the addition of a suffix *a*, an inflectional suffix used in a wide range of constructions in Tjhauba (Gunnink 2022c). There are also borrowed verbs that do not display this final suffix (e.g. 9, 27). A total of six lexical verbs without it are attested in Tjhauba, including the two loanwords listed here (see Gunnink 2022c).

Phonological adaptation of borrowed click words in Tjhauba sometimes involves changes to the realisation of the clicks as they are used in the source language. Click phonemes that are absent in Tjhauba have been adapted; for instance, source words with a palatal click have been borrowed with a dental click instead (e.g. 7, possibly also 22, 37). However, there are also cases where clicks are adapted even though the click realisation of the source word does exist in other words in Tjhauba. For instance, Tjhauba *χò-/áí* 'be weak, lazy' corresponds to Khwe *ǁhǎí*, *ǁxǎí* 'be meagre, thin; be weak, feeble' (see 9). The aspirated or velar fricative click of the Khwe source word has been adapted to a simple voiceless click in Tjhauba, even though in other cases, the velar fricative accompaniment has been maintained as a uvular fricative (see 47, 48). These unexpected phonological differences may suggest that Khwe, or at least the Khwe variety that is documented, was not the direct source of these Tjhauba loanwords.

The preference for dental clicks in Tjhauba means that certain source words with a click other than the dental correspond to a dental click in Tjhauba (see, for instance, 6, 9, 11). However, as discussed in section 5.1, elder speakers also use clicks other than the dental in certain words, and this appears to correlate somewhat with the click type of the original source word. Words that elderly speakers consistently realise with a lateral click correspond to source words with lateral clicks (5, 27, 34, 37). Words that elderly speakers consistently realise with a dental click correspond to source words with dental clicks (14, 39, 49). In one case of elderly speakers consistently using an alveolar click, the source word also contains an alveolar click (20).

5.3 Other contact-induced influence

Click phonemes are one of the most salient cases of contact-induced change in Tjhauba, but other contact-induced changes can also be identified. In addition to the click-containing loanwords listed in section 5.2, Tjhauba has also borrowed lexemes without clicks from Yeyi (24), from Khoe languages, most commonly Khwe (25), and Mbukushu (26), although Mbukushu has not contributed any loanwords to Tjhauba that contain clicks.

(24) Yeyi loanwords in Tjhauba

(a) *ŋgwéšè* ‘tigerfish’ < Yeyi *ŋgwese* ‘tigerfish’ (Field notes)

(b) *ŋkàšfí* ‘punt’ < Yeyi *ɪnkasi* ‘punting pole, paddle’ (Lukusa 2009)

(c) *mù-jàmbùrù*
NP₃-skirt
‘skirt worn by female initiate’
< Yeyi *mu-zamburo* ‘women’s traditional attire’ (Lukusa 2009)

(d) *mù-ʔólí*
NP₃-rope
‘rope made from palm leaves’
< Yeyi *mù-n!’úni* ‘fruit of the date palm (*Phoenix reclinata*)’ (Sommer & Voßen 1992: 33)

(25) Khoe loanwords in Tjhauba

- (a) *dòó* ‘waterlily’ < Khwe *dó* ‘waterlily (*Nymphaea capensis*)’ (Kilian-Hatz 2003: 36), *||Ani dǒ* ‘small fruit of the waterlily’ (Heine 1999: 113)
- (b) *púmbùlù* ‘mosquito’ < Khwe *pímboro* ‘mosquito’ (Kilian-Hatz 2003: 104), Ts’ixa *pímbōrō*, *púmbōrō* ‘mosquito’ (Fehn 2019b), North-Western !Xun *pímbúlú* (König & Heine 2008: 148)
- (c) *ngòròngú* ‘bushbuck’ < Khwe *ngùrúngù*, *ngùrúngùrù* ‘bushbuck’ (Kilian-Hatz 2003: 95)⁸
- (d) *kòmà* ‘papyrus’ < Khwe *koámá*, *koómá* ‘papyrus’ (Kilian-Hatz 2003: 61), *||Ani kwàmá* ‘reed sp.’ (Heine 1999: 115)
- (e) *ǀáú* ‘fish’ < *||Ani ||ǀāù ~ ||ǀēù*, *||Xom ||ǀéú*, Buga *||ǀáú ~ ||ǀéú* ‘fish’ (Fehn 2019a: 25)

(26) Mbukushu loanwords in Tjhauba

- (a) *ǀi-nùngù*
NP₇-porcupine
‘porcupine’
< Mbukushu *ǀi-nungu* ‘porcupine’ (Wynne 1980: 395)
- (b) *ǀi-téngù*
NP₇-bird
‘bird sp.’
< Mbukushu *ǀi-tengu* ‘drongo’ (Wynne 1980: 165)

These loanwords have been adapted phonologically to a certain degree. Most significant is the loss of the click in *ǀáú* ‘fish’, which appears to be borrowed from a source word with an initial click followed by a glottal stop, of which only the glottal stop is maintained.⁹

⁸ Kilian-Hatz (2003: 95) lists this as a Mbukushu loanword in Khwe, but the word is not attested in the fairly comprehensive Mbukushu dictionary by Wynne (1980).

⁹ It is also possible that the original source word already lost its click. Shua varieties, a cluster of Khoe languages spoken further east in Botswana, exhibit a form *ǀáú* ‘fish’ (Fehn 2018: 20). While this form would provide a better phonological fit to the Tjhauba word, there is no known contact between Tjhauba and Shua speakers.

A similar process has affected *mù-ʔólí* ‘rope made of palm leaves’, where the nasal glottalised click in the Yeyi source word was adapted to a glottal stop. This is significant, not only because clicks were maintained in other borrowings (see 5.2), but also because the glottal stop is rare in Tjhauba, and has only been attested in loanwords. Attested click loss patterns in Khoisan languages also show the replacement of glottalized clicks with glottal stops (Traill & Vossen 1997: 43–44; Fehn 2020).

The Yeyi source word *mù-n!’únì* ‘fruit of the date palm (*Phoenix reclinata*)’ is of particular interest because it appears to have been borrowed twice in Tjhauba. In the Tjhauba word *mù-ʔólí* ‘rope made of palm leaves’ the click has been lost, and the second root consonant /n/ has been replaced by /l/. This is not a case of phonological nativization (as /n/ does occur phonemically in Tjhauba, Gunnink (2022c)), but part of a regular sound change that has historically changed all instances of *n to /l/ (see section 4). The second Tjhauba loanword that reflects the same Yeyi source is *mù-n!’únì* ‘fruit of the date palm (*Phoenix reclinata*)’, which not only reproduces the semantics of the source more closely, but also displays less phonological adaptation, maintaining the click and not changing the second root consonant /n/ to /l/. The most likely explanation would posit Tjhauba *mù-ʔólí* ‘rope made of palm leaves’ as an early loan, which must have at least predated the *n > /l/ shift, and Tjhauba *mù-n!’únì* ‘fruit of the date palm (*Phoenix reclinata*)’ as a later loan. This would then entail that clicks were not maintained in early loanwords, but were only borrowed into Tjhauba relatively more recently.

Similar to the click-containing loanwords discussed in section 5.2, most (eight out of eleven) loanwords listed in (24)–(26) refer to animal and plant species. Terminology for plants or animals living in or near water and activities carried out on water are also well-represented among Tjhauba loanwords.

Tswana also exerts strong influence on Tjhauba. Most Tjhauba speakers are fluent in Tswana, and younger generations have already shifted to Tswana. Given the close genealogical relationship between Tswana and Tjhauba, however, Tswana influence in Tjhauba is not always easily identified. A thorough study of the extent of Tswana influence on Tjhauba is beyond the scope of this research.

6 Discussion

The data presented in this paper have shown Tjhauba to be a highly divergent regional variety of the Sotho language Kgalagadi. In this section, I discuss the implications of these linguistic findings for our understanding of the history of Tjhauba speakers, their interactions with speakers of surrounding languages, and the history of the Ngamiland region within Southern Africa.

As discussed in section 4, there are a number of phonological and morphological differences between Tjhauba and other Kgalagadi varieties that appear to have come about through language-internal processes. These differences are quite extensive, suggesting that Tjhauba speakers diverged from other Kgalagadi-speaking communities long ago. This is consistent with their relative geographic isolation with respect to other Kgalagadi-speaking communities.

In addition, Tjhauba has been heavily affected by contact with surrounding Bantu and Khoisan languages. The most salient foreign influence in Tjhauba is its large click inventory, consisting of 12 click phonemes, although their phonemic status cannot be conclusively proven due to the limitations of the dataset. Tracing the possible etymologies of Tjhauba click words gives insight into the specific donor languages of Tjhauba clicks. As shown in section 5.2, Tjhauba click words correspond to possible source words in both Bantu and Khoisan languages, of which Khwe and Ts'ixa (both Khoe-Kwadi), Ju|'hoan (Kx'a) and Yeyi (Bantu) are most likely to have been in direct contact with Tjhauba.

Of these likely donor languages, only Khwe is in direct contact with Tjhauba (see section 2). Ts'ixa is spoken in the village of Mababe, to the east of the Okavango river delta (Fehn 2014), and therefore separated from the Tjhauba speaking area by several hundred kilometres. As Ts'ixa has some affinities with Khwe (Fehn 2018), and given the documented contact between Tjhauba and Khwe speakers, apparent Ts'ixa influence in Tjhauba may in fact reflect influence from a linguistically similar Khwe variety on which no data are available. Unexpected phonological differences between Tjhauba click words and some (putative) Khwe source words also suggest a possibly undocumented Khwe lect as a source.

Direct and ongoing contact between Ju and Tjhauba is difficult to investigate. The nearest Ju variety is spoken in northwestern

Botswana to the west of the Okavango river, and therefore bordering on the areas where Tjhauba is spoken (Pratchett 2017: 11). I did not, however, encounter any Ju speakers in Tjhauba-speaking villages, and none of the Tjhauba speakers I interviewed reported Ju as a language spoken in their villages. It is therefore likely that ongoing contact between Tjhauba and Ju is limited, though the incorporation of Ju loanwords in Tjhauba suggests it was more extensive in the past.

Yeyi is currently not spoken in or near the Tjhauba-speaking area. During my fieldwork, the only Yeyi speakers in this area were individuals who recently migrated from elsewhere, and the closest Yeyi-speaking communities live much further to the south. However, Sommer and Voßen (1992) report data from Yeyi spoken in Shakawe and Gauxa collected in 1990, but also describe Yeyi spoken in these areas as moribund, due to a nearly completed shift to Tswana. It is clear that this shift has been completed now, but if Yeyi was still spoken in this area one or two generations ago, this could well account for the extensive influence that Yeyi has had on Tjhauba.

The etymologies of Tjhauba click words therefore show that the incorporation of clicks in Tjhauba must have been the result of contact with multiple languages, and some of these contact situations must have taken place in the past. Furthermore, while Khoisan languages clearly played an important role in the acquisition of clicks in Tjhauba, eight out of the 24 Tjhauba click words whose possible source was identified are likely to come from Yeyi, a Bantu language. This does not necessarily indicate that Yeyi contact was responsible for the introduction of clicks in Tjhauba; another possible scenario involves the incorporation of clicks in Tjhauba as the result of Ju or Khoe contact, followed by a period of Yeyi contact, during which new loanwords containing clicks were incorporated, but clicks were already part of the Tjhauba phoneme inventory. This scenario is supported by the repeated borrowing of the Yeyi noun *mù-n!'úni* 'fruit of the date palm (*Phoenix reclinata*)', which was first borrowed without a click as Tjhauba *mù-ʔóú* 'rope made of palm leaves', and subsequently with the maintenance of the click as *mù-n!'úni* 'fruit of the date palm (*Phoenix reclinata*)', as discussed in section 5.3. This suggests there was an early period of contact with Yeyi when Tjhauba did not yet incorporate click phonemes, followed by a later period of contact when clicks in borrowings were taken over unadapted.

The semantics of click words and other lexical borrowings also shed light on the nature of these contact situations. In section 5.2, it was shown that click words are especially common in the domain of flora and fauna, and that species growing or living in and near water are especially well-represented. As shown in section 5.3, plant and animal names are also common among loanwords not including clicks. This suggests that Tjhauba speakers are relative newcomers to the area, having migrated from the rather different environment of the Kalahari desert, where other Kgalagadi varieties are spoken, to the banks of the Okavango river. Names for newly encountered animal and plant species were then adopted from resident speakers of neighbouring languages, who clearly had more knowledge of the local environment. This contact may also have involved other types of knowledge transfer; the Yeyi, for instance, are credited with the invention of different techniques for fishing, hippo hunting and boat-making (Tlou 1985: 25–26). The Tjhauba word for punting paddle, *ŋkàfí*, is of Yeyi origin (see (24b) in section 5.3), suggesting Yeyi contact may have influenced the Tjhauba use of boats.

Tjhauba is part of a larger cluster of Bantu languages making use of clicks, the South-West Bantu click languages (Gunnink et al. 2015). The focus on flora and fauna in the Tjhauba click lexicon is also mirrored in these other South-West Bantu click languages (Gunnink et al. 2015: 204–205; Sommer & Voßen 1992), but the use of clicks in Tjhauba also exhibits some distinct characteristics. Firstly, the South-West Bantu click languages Mbukushu, Kwangali, Manyo and Fwe all have a rather limited click inventory, consisting of four or five click phonemes, none of which are contrastive for click type, whereas Tjhauba, like Yeyi, uses a much larger click inventory, and shows some signs of click type being used contrastively. This suggests a possibly more intensive contact situation, where extensive bilingualism would have resulted in the adoption of a large number of new phonemes. This is supported by ongoing Tjhauba/Khwe multilingualism observed during fieldwork, as discussed in section 3.

Secondly, the etymologies of click words in Tjhauba appear to be more easily traced than those in other South-West Bantu click languages. 24 out of 51 recorded click words in Tjhauba have an assignable etymology in another language¹⁰. Most of these etymologies

¹⁰ Note that out of the Tjhauba click words without identifiable origin, nine refer to plant species that could not be reliably identified, which hampers the iden-

are fairly convincing, in the sense that there are few unexplainable formal or semantic differences between the Tjhauba word and its putative source. In other South-West Bantu click languages, however, only between 16% and 36% of click words (depending on the language) have an identifiable Khoisan etymology (Gunnink et al. 2015: 204), and not all suggested etymologies are equally plausible, possibly because the actual source language is an extinct and/or undocumented language (Gunnink et al. 2015: 199). This could indicate that the contact situations in which Tjhauba acquired click words were more recent than those in which other South-West Bantu click languages were involved, from donor languages that are still spoken (and documented), or languages that do not differ very extensively from their modern-day relatives on which the identification of source words was based.

Thirdly, and most strikingly, in the South-West Bantu click languages Fwe, Manyo, Mbukushu, and Kwangali clicks also occur in originally clickless vocabulary (Gunnink et al. 2015; Bostoen & Sands 2012).¹¹ This click insertion was not the result of a regular phonological process, but has rather been linked to sound symbolism (Bostoen & Sands 2012) and identity-marking (Gunnink et al. 2015). No evidence for click insertion is seen in the Tjhauba click lexicon, suggesting that the identity-marking functions that are attributed to clicks in other South-West Bantu click languages are not present in Tjhauba.

The Tjhauba situation of contact with surrounding click languages (both Bantu and Khoisan) can also be compared to the contact that other Kgalagadi varieties have with neighbouring Khoisan-speaking communities. As noted in 5.1, other Kgalagadi varieties use little to no click phonemes, as opposed to Tjhauba's large click inventory. The social circumstances of contact involving other Kgalagadi varieties are also distinct. Whereas relationships between Tjhauba speakers and neighbouring Khwe speakers are fairly close and amicable, Kgalagadi-Khoisan contact situations taking place further south are dis-

tification of source words. A proper identification of these plant species would likely increase the number of etymologies for Tjhauba click words even further.

¹¹ No click insertion was observed in Yeyi (Gunnink et al. 2015: 206). Two possible exceptions are Yeyi *u-n!oko* 'leftovers of porridge in the pot' (Seidel 2008: 112), from Proto-Bantu *kókó 'crust' (Bastin et al. 2002), and Yeyi */hwata* 'drip' (Lukusa 2009), from Proto-Bantu *tònt 'drip' (Bastin et al. 2002).

tinctly more unequal. Kgalagadi-speakers living in the Central Kgalagadi Game Reserve in Central Botswana exchange products and services with various Khoisan communities living in the area, such as speakers of G|ui, G||ana, and !Xoon, but this contact is characterized by a clear dominance on the part of the Kgalagadi (Ikeya 2000; Silberbauer & Kuper 1966; Ikeya 2018). This is coupled with bilingualism with, and language shift to Kgalagadi by speakers of different Khoisan languages (Chebanne & Monaka 2008; Monaka & Lepekoane 2008; Hasselbring 2000; Lukusa 2000; Monaka 2013). The difference in social circumstances of the Tjhauba-Khoisan contact situation with respect to contact between other Kgalagadi varieties and Khoisan languages is therefore mirrored in the linguistic outcome: the more equitable contact situation in which Tjhauba is involved results in a much more extensive linguistic restructuring than the unbalanced social relations between Kgalagadi and Khoisan speakers elsewhere.

The linguistic data therefore prove Tjhauba to be a highly divergent Kgalagadi variety, that has been strongly influenced by extensive contact with other populations of northern Ngamiland speaking Bantu, Khoe and Kx'a languages. The name Tjhauba also provides an intriguing link to the Tjaube, a former population of northern Namibia who now speak Shambyu, one of the two dialects subsumed under the Bantu language Manyo (Möhlig 2017). The history of the Tjaube is detailed in the Tjaube chronicle, originally recorded in 1954 from Rudolf Haushiku, a Tjaube descendant (Möhlig 1998; Möhlig 2017). This text describes the journey of the Tjaube from Ngamiland to their present location in northern Namibia (Fleisch & Möhlig 2002: 33). The Tjaube detailed in this chronicle not only bear a strikingly similar name to the Tjhauba of Botswana, they are also described as “neither Bantu nor San, but a third ethnic group” (Möhlig 1998: 363). This is reminiscent of Tjhauba being a Bantu language with strong Khoisan influence. However, the Tjaube do not necessarily have to be equated with the Tjhauba; modern Tjhauba speakers attribute their name to the now-deserted village of the Di-tjhauba (near modern Samochima), and if (Di)Tjhauba functioned primarily as a geographic rather than ethnolinguistic designation, other populations originating from the same area may have once used the same name. Therefore the similarities and differences between the

Tjaube and the Tjhauba, considering oral history, ethnography and linguistics, require further investigation.

7 Conclusion

Tjhauba, a previously undocumented regional variety of Kgalagadi spoken in northwestern Botswana, exhibits many linguistic differences with respect to the better documented Kgalagadi varieties spoken further south. In this paper, I have shown that many of these linguistic differences, particularly the use of a large inventory of click phonemes, are the result of extensive contact with neighbouring languages, including Khwe and possibly Ts'ixa, two languages of the Khoe-Kwadi family, Ju, a language of the Kx'a family, and Yeyi, another Bantu language not closely related to Tjhauba. Some of these contact situations may have taken place in the past, whereas others are still ongoing. The predominance of flora and fauna related terminology is in line with the relatively isolated position of Tjhauba speakers with respect to other Kgalagadi varieties, living along the Okavango river rather than in the Kalahari desert. The large number of click phonemes incorporated in Tjhauba suggests an intensive contact situation, involving extensive bilingualism, some of which continues until today. Unlike other Bantu click languages, however, Tjhauba exhibits no evidence of having extended clicks to originally clickless vocabulary, suggesting that in Tjhauba, clicks are not associated with sound symbolic or identity marking functions.

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