

A Grammar Sketch of the Shetjhauba Variety of Shekgalagadi

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Shekgalagadi is an endangered Bantu language of the Sotho cluster spoken in Botswana. While it is known that the language shows extensive regional variation, very little documentation exists of smaller, more remote varieties. This paper provides a first ever description of the northern-most Shekgalagadi variety known as Shetjhauba, spoken along the Okavango panhandle close to the Namibian border. Using original field data, I provide a grammatical sketch of Shetjhauba. First, the segmental phonology of Shetjhauba is described, providing an overview of its phonemic consonants and vowels, as well as a major morphophonological process that occurs in several morphological environments, referred to as “strengthening”. A striking difference between the phonology of Shetjhauba and that of previously described Shekgalagadi varieties is its extensive use of click phonemes. Secondly, the nominal and verbal morphology of Shetjhauba are discussed, giving insights into noun classes, nominal derivation, and various pronouns and agreeing modifiers. Shetjhauba also has an extensive verbal morphology, with various verbal derivational suffixes, and inflectional affixes marking tense, aspect, mood, negation, as well as subject and object.

Keywords: grammar sketch, Bantu, endangered language, Shekgalagadi

1. Introduction

This paper provides a brief grammatical sketch of the Shetjhauba variety of Shekgalagadi. She- is a noun class prefix of class 7 used for, among others, nouns referring to the names of languages. Shekgalagadi, also known as Qhalaxarzi, is a Bantu language spoken across much of the interior of Botswana. It is part of the cluster of Sotho-Tswana languages and is designated with the code S31d in the well-known alphanumerical classification of Bantu languages (see Hammarström (2019) for the most recent update). Shekgalagadi is endangered, mainly through ongoing shift to Botswana’s national language Setswana (Chebanne 2016; Lukusa 2000; Monaka 2013). It has about 272,000 native speakers according to a 2006 survey (Monaka 2013: 42).

Shekgalagadi exhibits extensive regional variation (Kalasi 2003; Lukusa and Monaka 2008; Monaka 2013). Most earlier work on Shekgalagadi focused on the Shengologa and Sheshaga varieties spoken mainly in southwestern Botswana (Dickens 1978, 1984b, 1986a, 1986b, 1987; Hyman and Monaka 2011; Lukusa and Monaka 2008; Monaka 2005; Neumann 1999; Solé et al. 2010). The present paper discusses the hitherto unstudied Shetjhauba variety, spoken in northwestern Botswana. Speakers of Shetjhauba live in the villages of Ncamasere, Xauga and Samochima, situated along the Okavango river. They are in contact with Setswana, the national language and language of education and administration, as well as the Bantu language Thimbukushu, and the Khoe language !Ani. Like other Shekgalagadi varieties, Shetjhauba is endangered, mainly through ongoing shift to Setswana. No information is available on the number

of Shetjhauba speakers but based on the population of the Shetjhauba-speaking villages it is likely to be less than a thousand. The data on which this study is based were collected in 2019 with a male native speaker of Shetjhauba who was in his twenties. Occasional consultations were made with elderly Shetjhauba speakers. All speakers contributing data to this study are gratefully acknowledged.

In the following sections, a brief introduction to the phonology, nominal and verbal morphology of Shetjhauba is given. Where known and relevant, differences with the larger, better-described Shekgalagadi varieties are pointed out. Many areas of further research await. For instance, other Shekgalagadi varieties have interesting and intricate systems of vowel harmony that affect nominal prefixes (Dickens 1978). The vowels of nominal prefixes in Shetjhauba are also variable, and it is likely that some process of vowel harmony exists, but this requires further study and more careful phonetic transcription. Other issues in the description of Shetjhauba that require further study will be pointed out in the relevant sections.

2. Phonology

Shetjhauba phonology differs substantially from that of other Shekgalagadi varieties. As already suggested by earlier descriptions of Shekgalagadi, this is partially due to its large inventory of click phonemes, which are absent or marginal in other Shekgalagadi varieties (Lukusa and Monaka 2008: 10; Monaka 2013: 46). Other remarkable differences include the correspondence between /l/ in Shetjhauba to /n/ in all other Shekgalagadi varieties, as illustrated in (1)-(4).

- (1) Shetjhauba: χò-lw-á ‘to drink’
Shekgalagadi: go nwa ‘to drink’ (Lukusa and Monaka 2008: 211)
- (2) Shetjhauba: mò-lólà ‘man’
Shekgalagadi: monona ‘man’ (Lukusa and Monaka 2008: 220)
- (3) Shetjhauba χò-tjél-à ‘to go in’
Shekgalagadi: tjena ‘come in’ (Lukusa and Monaka 2008: 102)
- (4) Shetjhauba: tʃʰòlá ‘we’
Shekgalagadi: tjhona ‘we’ (Lukusa and Monaka 2008: 225)

In the following sections, the consonants, vowels, tones and some morphophonological processes of Shetjhauba are discussed. Morpheme boundaries in example words are indicated by hyphens: for nouns, this includes nominal prefixes, and for verbs, this includes the infinitive prefix and the final vowel suffix *-a* (if present).

2.1 Consonants

	Bilabi	Dental	Alveolar	Post alveolar	Palatal	Velar	Uvula	
Plosive	p ^h p b	t ^h t d	t ^h t			(k ^h) k g		
Affricate			ts ^h ts	tʃ ^h tʃ dʒ			qχ	
Fricative			s z	ʃ			x	h
Trill			r					
Approximant	w		l		y			
Nasal	m		n		ɲ			

Table 1: Consonant phonemes of Shetjhauba

Shetjhauba has a three-way voice onset contrast in plosives and affricates. The contrastive function of aspiration and voicing in bilabial, dental and alveolar plosives is shown by the following (near-) minimal pairs.

- (5) ø-p^hélêlò ‘end’
ø-pèlèhú ‘uncastrated sheep’
mà-bèlé ‘grains’
- (6) mò-t^hálá ‘footprint’
ø-t^hálà ‘hunger’
χò-d^hál-à ‘to fill’
- (7) χò-t^hùb-à ‘to pinch’
χò-tùb-à ‘to demolish’
- (8) χò-tib-à ‘to sink’
ʃi-dibà ‘well, borehole’

/k/ and /g/ are contrastive, as shown in (9)-(10), but instances of /k^h/ are rare, and mostly restricted to loanwords. Given its low frequency, its phonemic status could not be ascertained through minimal pairs. Examples of words containing /k^h/ are given in (11)-(12).

- (9) ʃi-gúbà ‘Yeyi language’
ʃi-kúbá ‘chest’
- (10) ø-kòró ‘hornbill’
lì-gòró ‘hole’
- (11) mò-lànik^hwè ‘!Anikho person’
- (12) mò-k^háínó ‘(the condition of) not having front teeth’

Shetjhauba has alveolar, postalveolar, and uvular affricates. Alveolar affricates occur in voiceless and voiceless aspirated forms, as shown in the following near-minimal pairs.

- (13) ø-ts^hárò ‘inner thighs’
ø-tsàrò ‘wild date palm’
- (14) χò-ts^híl-á ‘to live’
ø-tsìlà ‘path’

The alveolar affricate /ts/ contrasts with the voiceless alveolar fricative /s/, and with the voiceless alveolar stop /t/, as the following near-minimal pairs show.

- (15) χò-siy-à ‘to leave’
χò-tsíy-á ‘to wink’

- (16) χò-tsúb-á ‘to blow’
χò-tùb-à ‘to demolish’

Postalveolar affricates occur as voiceless /tʃ/, voiceless aspirated /tʃ^h/ and voiced /dʒ/. Their contrastive status is shown by the following near-minimal pair.

- (17) χò-tʃ^hwál-à ‘to be similar’
χò-tʃwár-à ‘to hold, carry’
bò-dʒwálá ‘beer’

The voiced postalveolar affricate /dʒ/ shows free variation with its fricative counterpart /ʒ/.

- (18) li-bídʒó ~ li-bíʒó ‘name’
(19) χò-kúʒ-á ~ χò-kúʒ-á ‘to curse’
(20) li-dʒòkòlòlò ~ li-ʒòkòlòlò ‘centipede’

Uvular affricates only occur as voiceless unaspirated /qχ/. Uvular affricates contrast with velar stops, and with uvular fricatives, as shown by the following minimal pairs.

- (21) ø-kòró ‘hornbill’
ø-qχòró ‘doorway’
(22) χò-réqχ-á ‘to buy’
χò-réχ-á ‘to kick’
(23) χò-χát-á ‘to stamp’
χò-qχát-á ‘to amuse’

[q] is a free allophone of /qχ/, which occurs especially as the second consonant of a root.

- (24) χò-líq-á ~ χò-líqχ-á ‘to try’
nòqá ~ nòqχá ‘river’

/qχ/ has another allophone [qh] that occurs before the approximant /w/.

- (25) ʃi-q^hwà ‘forest’
ø-q^hwèdí ‘month’

Voiceless unaspirated plosives and affricates can be pronounced as ejectives; this realization is optional and heard with all places of articulation. Free variation between voiceless unaspirated stops and ejectives is also seen in other Sotho languages, for instance Tswana (Bennett et al. 2016: 236; Coetzee and Pretorius 2010: 406).

- (26) ø-p’ílú ~ ø-pílú ‘heart’
(27) ø-ṽ’ádí ~ ø-ṽádí ‘thunderstorm’

- (28) χò-ròt'-à ~ χò-ròt-à 'to pee'
 (29) ø-k'ilí ~ ø-kilí 'catfish'
 (30) χò-t^háts'-á ~ χò-t^háts-á 'to vomit'
 (31) tʃ'èbé ~ tʃèbé 'ear'
 (32) ʃi-qχ'óló ~ ʃi-qχóló 'elbow'

Shetjhauba has alveolar, postalveolar, uvular and glottal fricatives. Only alveolar fricatives contrast voicing, as shown by the minimal pair in (33).

- (33) mò-sádi 'woman'
 mò-zádi 'parent'

The postalveolar fricative only occurs as voiceless /ʃ/, which contrasts with /s/ as shown in the near-minimal pairs in (34)-(35).

- (34) li-ʃò 'spoon'
 mò-sò 'urine, semen'
 (35) li-ʃú 'death'
 mù-sú 'umbrella thorn'

A voiced postalveolar fricative [ʒ] only occurs as allophone of the affricate /dʒ/ (see (18)-(20)): there are no cases of [ʒ] which do not allow an alternative realization with [dʒ]. This shows that [ʒ] is only an allophone of /dʒ/, and not a separate phoneme.

The uvular and glottal fricatives are contrastive phonemes, as shown in the minimal pair in (36).

- (36) mò-χáqχá 'partner, spouse'
 mò-háqχá 'knife'

Shetjhauba has 3 phonemic nasals, /m, n, ɲ/. Of these, /m/ and /n/ can occur in any position, and are clearly contrastive, as shown by the near-minimal pair in (37).

- (37) χù-i-kám-á 'to comb one's hair'
 χù-i-kán-à 'to swear, promise'

The bilabial nasal /m/ has a velar allophone [ŋ] which occurs before the approximant /w/. Unlike in other Shekgalagadi varieties (Dickens 1987; Lukusa and Monaka 2008), there is no phonemic /ŋ/ in Shetjhauba.

- (38) mò-áχá > [ŋwáχá] 'year'
 (39) mò-èdí > [ŋwèdí] 'moon'

/ɲ/ has a more restricted distribution than /m/ and /n/. It occurs in the following contexts: in certain causative verbs, word-finally before a high front vowel /i/, and in the diminutive suffix *-ɲala*.

- (40) /ɲ/ in causative verbs
 χò-kòpàɲ-à 'to add' < χò-kòpàl-à 'to meet'
 χò-qχáóχàɲ-à 'to break (tr.)' < χò-qχáóχàl-à 'to break (intr.)'

- (41) /ɲ/ word-finally when followed by /i/
 bò-dʒwáɲí ‘grass’
 mò-hèɲì ‘winner’
 ø-p^héɲèɲí ‘scorpion’
- (42) /ɲ/ in the diminutive suffix -ɲàlà
 lì-dʒwè-ɲàlà ‘small stone’ < li-dʒwè ‘stone’
 ø-tsilà-ɲàlà ‘small path’ < ø-tsilà ‘path’

Outside these three contexts, /ɲ/ occurs in a limited number of lexemes, listed in (43).

- (43) /ɲ/ in other contexts
 χò-ɲàp-à ‘to pinch’
 χò-ɲèlél-à ‘to disappear’
 χò-ɲèròlòχ-à ‘to melt’
 lì-ɲínà ‘earring’
 mù-ɲò, mù-ɲwè ‘dew, mist, vapour’
 lì-ɲóra ‘thirst’

In spite of this restricted distribution, /ɲ/ needs to be considered a separate phoneme because it is not an allophone of any other phoneme. Both /m/ and /n/ occur in the same contexts as /ɲ/, for instance word-finally followed by /i/, as shown in (44) and (45).

- (44) ʃì-bíní ‘dancer’
 sì-tútɰàni ‘zombie’
 ø-p^hàⁿdáni ‘partial baldness’
- (45) ø-tímí ‘language’
 mò-zúmì ‘hunter’
 bò-hómí ‘riches’

Nasals can occur as the onset consonant of a syllable, or can be syllabic, occurring as the syllable’s nucleus. In the latter case, the nasal bears a tone. Syllabic nasals always have the same place of articulation as the following consonant, and can only be followed by plosives, or by alveolar and postalveolar affricates, but not uvular affricates. There are no restrictions on aspiration: syllabic nasals can be followed by both aspirated and unaspirated obstruents. Examples of syllabic nasals of each place of articulation are given in (46).

- (46) ɲ̀pà ‘stomach’
 ɲ̀p^hó ‘gift’
 ɲ̀bú ‘baobab’
 bòɲ̀tè ‘beauty’
 láɲ̀t^há ‘first’
 χòɲ̀tú ‘leg’
 ɲ̀t^hó ‘wound’
 χò-ɲ̀àɲ̀tsòlòχ-à ‘to stretch’
 χò-ɲ̀ts^h-à ‘to take out’
 ɲ̀tʃó ‘nose’
 χó-ɲ̀tʃ^h-à ‘to smell’
 ɲ̀kàʃí ‘punting pole’

Shetjhauba contrasts the approximants /w/ and /y/, the lateral approximant /l/, and the trill /r/. The minimal pairs in (47)-(48) show the contrast between /l/ and /r/, and the near-minimal pairs in (49)-(50) the contrast between /l/ and /n/.

- (47) χò-lóm-á ‘to bite’
χò-róm-á ‘to send’
- (48) χò-lwál-à ‘to be sick’
χò-rwál-à ‘to carry on the head’
- (49) χò-bìl-à ‘to boil’
χò-bín-á ‘to dance’
- (50) lì-nálá ‘nail’
mò-làlà ‘neck’

The lateral approximant /l/ has an allophone [d] which occurs before high vowels /i/ and /u/.

- (51) mò-χódú ‘esophagus’
- (52) bò-it^hwádi ‘pregnancy’ < χòit^hwálà ‘to be pregnant’

The approximant /w/ has a limited distribution, never occurring before back vowels. /w/ is always preceded by another consonant. Any consonant can combine with /w/; some examples are given in (53)-(56).

- (53) /tw/: lì-twadí ‘bald’
- (54) /bw/: χò-bwál-á ‘to see’
- (55) /rw/: χò-rwál-à ‘to carry on the head’
- (56) /fw/: bò-fwá ‘inheritance’

The approximant /y/, on the other hand, only occurs as the single consonant in an onset, and can never be preceded by another consonant. Some examples are given in (57).

- (57) ø-áyò ‘mother’, χò-yàk-à ‘to lie’, yànà ‘it has rained’

[w] and [y] also occur as epenthetic consonants in between two vowels, with /y/ inserted before front vowels, and /w/ before or after back vowels.

- (58) [χòrùwà] < /χò-ru-a/ ‘to rear livestock’
[mòrùyì] < /mò-ru-i/ ‘pastoralist’

Prenasalized consonants are very common in Bantu languages but are generally absent from languages of the Sotho-Tswana cluster. In Shetjhauba, prenasalized consonants do occur but are fairly uncommon, and mostly restricted to loanwords. A total of 21 words are attested that contain a prenasalized consonant. Of these, three words come from Yeyi, two from Khwe, two from Mbukushu, two from English, and two from Afrikaans. For the remaining ten words, no etymology could be found. Some examples of Shetjhauba words with prenasalized consonants are given in (59)-(62).

- (59) ʃi-nù^ɓgù ‘porcupine’ < Mbukushu θi-nu^ɓgu ‘porcupine’ (Wynne 1980: 395)
- (60) ^ɓgwèjè ‘tigerfish’ < Yeyi ^ɓgwéjè ‘tigerfish’ (Gunnink field notes)
- (61) má^ɓk^hi ‘washing basket’ < Afrikaans mandjie ‘basket’

- (62) pú^mbùlù ‘mosquito’ < Khwe pímboro ‘mosquito’ (Kilian-Hatz 2003: 312)

Unlike other Shekgalagadi varieties, Shetjhauba has a large inventory of click phonemes. However, as the number of words containing clicks collected so far is limited to about 50, establishing and proving which click sounds are phonemic is at present not possible. Due to this uncertainty clicks are not represented in the consonant phoneme inventory in Table 1. Furthermore, there is a tendency, at least among younger speakers, to realize all clicks as dental. Elderly speakers of Shetjhauba contrast at least dental, alveolar and lateral clicks.

- (63) Dental clicks: nù ‘small’, χò-lób-á ‘to kiss’
 (64) Alveolar clicks: mò-n!’ónì ‘date palm’, !ùbwé ‘lily’, mò-n!á ‘acacia sp.’
 (65) Lateral clicks: glóbò ‘mud’, mó-glwáà ‘tree sp.’, gláìglái ‘bird sp.’

Clicks occur as voiceless, voiced, nasalized, glottalized, nasal glottalized, and with a uvular fricative. Not all combinations of click type and accompaniment are attested, possibly due to the low number of recorded click words.

- (66) Voiceless clicks: χó-lôw-á ‘to be tasteless’, làbú ‘shoe’
 (67) Voiced clicks: sì-glúkùmù ‘fruit sp.’, gwèé ‘tortoise’, gwí ‘waterlily sp.’
 (68) Nasalized clicks: χù-ì-nlòkòḡḡl-à ‘to lean’, mò-nlàòlára ‘bush sp.’
 (69) Glottalized clicks: χò-l’ám-á ‘to lick’, l’ámátáti ‘catfish’
 (70) Nasal glottalized clicks: mò-nl’wí ‘tree sp.’, mò-n!’ónì ‘date palm’
 (71) Uvular fricative clicks: |χàχàglípù ‘bat’, mò-|χábá ‘sycamore fig’

2.1. Vowels. Shetjhauba has 7 phonemic vowels: /i, ɪ, e, a, o, ʊ, u/. The contrast between the high vowels and lowered high vowels is proven by the following (near-) minimal pairs:

- (72) mù-fílá ‘tail’
 χò-fíl-á ‘to play’
 (73) kílí ‘left’
 ø-kílí ‘catfish’
 (74) χò-rùt-à ‘to teach’
 χò-ròt-à ‘to pee’
 (75) χò-hùl-à ‘to graze’
 χò-hòl-à ‘to pick’

The contrast between the lowered high vowels and mid vowels is shown by the following minimal pairs.

- (76) χò-lòl-à ‘to gain weight’
 mò-lólà ‘man’
 (77) χò-kòpàl-à ‘to meet’
 χò-kòp-à ‘to beg’

- (78) χò-yím-á ‘to become pregnant’
χò-yém-á ‘to stand, wait’
- (79) χò-hèh-à ‘to stir (porridge)’
χò-hìh-à ‘to hide’
- (80) mù-kùp^hi ‘beggar’
ø-kóp^hi ‘cup’

Shetjhauba attests sequences of dissimilar vowels, as in (81), or similar vowels, as in (82). The latter may appear to be long vowels, though the fact that these may take any two tones suggests that they are better analyzed as vowel sequences.

- (81) mu-nlàúbàlà ‘leadwood tree’, fì-qχáú ‘late morning’, mò-tsaó ‘clay soil’, χò-t^héúfèl-à ‘to work’, béihí ‘blackthorn tree’, mò-k^háínó ‘not having front teeth’
- (82) ǫóó ‘water lily’, χò-héèl-à ‘to sweep’, làátfì ‘sun, day’, χò-bwíí ‘to appear’

Vowels in a penultimate syllable are automatically lengthened. As this process is not contrastive, penultimate lengthening is not indicated in the examples in the rest of this sketch.

- (83) [bòχá:lì] ‘sharp’, [màtsàqχàtsà:qχà] ‘wet’, [χòbòχóló:là] ‘to untie’

2.2. Tones. (Standard) Shekgalagadi, like most Bantu languages, is a tone language. Descriptions of its tone system can be found in Crane (2009); Dickens (1984b, 1986b); Hyman and Monaka (2011). Although the workings of the Shetjhauba tone system are yet to be analyzed, it is clear that tone is phonemically contrastive in Shetjhauba, as illustrated by the following minimal pairs.

- (84) χò-ts^hól-à ‘to give birth’
χò-ts^hòl-à ‘to dish food’
- (85) χò-lw-à ‘to fight’
χò-lw-á ‘to drink’
- (86) lì-hòdì ‘hole’
lì-hódì ‘shoulder’

Shetjhauba has two contrastive tones, high and low. Falling tones only occur in the penultimate syllable, as in (87) where they are the result of penultimate lengthening. Level high tones also occur in the penultimate syllable, as in (88).

- (87) kì-bín-â-χó
SM_{1SG}-dance-FV-DJ.PRES
‘I am dancing.’
- (88) χò-bín-á
INF-dance-FV
‘to dance’

2.3. Morphophonology. Shetjhauba has a morphophonological process that is common in Sotho languages, where it is referred to as “strengthening” (Dickens 1984a). This describes a series of phonological changes to a consonant, such as devoicing, aspiration, or plosivization. In Shetjhauba, strengthening occurs in three morphological environments: following the reflexive prefix *i-*, following the first-person singular object marker, which consists of a homorganic syllabic nasal, and as a nominal prefix of noun class 9 and 10.

Phonologically, the tendency for strengthening is to turn voiceless consonants into voiceless aspirated consonants, and voiced consonants into voiceless unaspirated consonants. However, there are many exceptions to this tendency, partly due to the gaps in the phoneme inventory of the Shetjhauba. The effect of strengthening to change a voiceless consonant into an aspirated consonant is shown in (89), where the voiceless unaspirated dental stop /t/ becomes aspirated when preceded by the object marker for the first person singular.

(89) χò-t̥áp-is-à ‘to wash’ > χò-n-t̥^háp-is-à ‘to wash me’

Strengthening applied to a voiced plosive results in a voiceless unaspirated plosive, as shown in (90), where the voiced plosive /d/ changes to a voiceless unaspirated plosive /t/ under the influence of the preceding reflexive prefix *i-*.

(90) χò-d̥òd̥z-à ‘to smear’ > χò-i-t̥òd̥z-à ‘to smear oneself’

Strengthening changes alveolar and postalveolar voiceless fricatives to aspirated affricates of the same place of articulation. As Shetjhauba has no aspirated uvular affricate, uvular fricatives are changed to unaspirated uvular affricates, as shown in (93).

(91) χò-sìt-à ‘to pound’ > χò-i-ts^hít-êl-à ‘to pound for oneself’

(92) χò-ǰíám-à ‘to be kind’ > χò-i-tǰ^híám-êl-à ‘to be kind to oneself’

(93) χò-χám-á ‘to milk’ > χò-i-qχám-êl-à ‘to milk for oneself’

Parallel to voiced plosives, the voiced fricative /z/ is changed to a voiceless unaspirated affricate under strengthening.

(94) χò-zúm-à ‘to hunt’ > χò-i-tsúm-êl-à ‘to hunt for oneself’

The glottal fricative /h/ is changed to /ph/ under strengthening.

(95) χò-h-á ‘to give’ > χò-i-ph-á ‘to give to oneself’

Strengthening also causes changes in continuants. Strengthening changes the trill /r/ into /th/, as shown in (96), and the lateral /l/ into /t/, as shown in (97).

(96) χò-ràt-à ‘to love’ > χò-i-t^hàt-à ‘to love oneself’

(97) χò-lim-à ‘to cultivate’ > χò-i-tím-êl-à ‘to cultivate for oneself’

The approximant /y/ changes to /ky/, as shown in (98). The approximant /w/ never occurs root-initially and can therefore not be affected by strengthening.

(98) χò-yép-à ‘to dig’ > χò-i-kyép-êl-à ‘to dig for oneself’

Phonological changes are seen when strengthening affects a vowel-initial root, in which case a velar plosive /k/ surfaces.

- (99) χò-úzw-á ‘to hear, feel’ > χù-ì-kúzw-á ‘to feel, be healthy’
 (100) χò-àkáj-à ‘to think’ > χù-ì-kàkáj-à ‘to think of oneself’
 (101) χò-òf-à ‘to fry’ > χù-ì-kóf-édz-à ‘to fry for oneself’

Finally, strengthening does not cause changes to nasal consonants, nor to voiceless aspirated obstruents, which retain their aspiration. The voiceless velar plosive /k/ is also unaffected by strengthening as the expected outcome, an aspirated velar plosive, is not part of the phoneme inventory of Shetjhauba.

3. Nominal morphology

This section discusses the nominal morphology of Shetjhauba, which is mostly similar to that of other Shekgalagadi varieties.

3.1. Noun classes. Shetjhauba has 11 noun classes, or genders, numbered 1-10 and 14 according to the common practice in Bantu linguistics. Noun class membership is marked through a noun class prefix on the noun and agreement prefixes on dependents. Shetjhauba also has a class 1a and 2a, which share their agreement patterns but not their nominal prefixes with class 1 and 2 respectively. Compared to other Sotho languages, including the Shengologa dialect of Shekgalagadi, Shetjhauba has lost class 11, mainly by reassigning all former class 11 words, marked by a prefix *lo-* in Shengologa, to class 5, marked by a prefix *li-/le-*.

- (102) Shengologa logaga ‘cave’ (Lukusa and Monaka 2008: 39)
 Shetjhauba li-χàχà ‘cave’
 (103) Shengologa logarima ‘lightning’ (Lukusa and Monaka 2008: 39)
 Shetjhauba lè-χàdimá ‘lightning’
 (104) Shengologa loheelo ‘traditional broomstick’ (Lukusa and Monaka 2008: 39)
 Shetjhauba li-héélò ‘broom’

Table 2 gives an overview of nominal prefixes for each noun class. Nominal prefixes are most often realized as low-toned, but occasionally as high-toned, for instance with certain monosyllabic nominal roots. As the tonal realization of nominal prefixes is not yet understood, these prefixes are presented without tone in Table 2.

Table 2: Nominal prefixes

Noun class	Noun class prefix	Noun class	Noun class prefix
1	mŭ-	2	ba-
1a	∅-	2a	bo-
3	mŭ-	4	mi-
5	li-	6	ma-
7	fi-	8	bi-
9	∅- / N-	10	di- / diN-
14	bu-		

The class 9 and 10 prefixes make use of strengthening (see section 2.3). The morphophonological changes to the root's initial consonant can be best observed in class 9/10 nouns derived from verbs, as in (105)-(108).

- (105) tíhò 'job' < χò-dih-à 'to do, make'
 (106) tórò 'dream' < χò-lór-à 'to dream'
 (107) titfèlò 'taste' < χò-litfèl-à 'to taste'
 (108) qχátó 'foot sole' < χò-χát-á 'to stamp'

Monosyllabic nominal roots in class 9 and 10 take an additional syllabic nasal as nominal prefix.

- (109) dɪ̃-tʃʰò 'spoons (cl10)' < cf. li-fò 'spoon (cl15)'
 (110) dɪ̃-tʃʰú 'deaths (cl10)' < li-fú 'death (cl15)'
 (111) ñ-kú 'sheep (cl9)'
 (112) ñ-tʃʰó 'nose (cl9)'

The class 1 and 3 nominal prefixes have an allomorph *m-*, used with lexical roots that start with a bilabial plosive.

- (113) ñ-bikò 'Mbukushu person (derogatory term)', ñ-bálá 'colour', ñ-pòròdà 'sausage tree'

Class 1a and 2a take the agreement pattern of class 1 and 2 respectively but use different nominal prefixes: class 1a has a zero prefix, and class 2 has a prefix *bo-*. The class 2a prefix *bo-* has two different tonal realizations, *bó-* and *bò-*. Which variant is used appears to be lexically determined, although more research is needed to verify this. The tonal behavior of class 2a *bó-/bò-* is remarkable because all other nominal prefixes in Shetjhauba are mostly realized with a low tone.

- (114) High-toned *bó-*: *bó-àùdí* 'fish eagles', *bó-gùbè* 'storks', *bó-gìwè* 'tortoises'
 (115) Low-toned *bò-*: *bò-pʰóyì* 'doves', *bò-qχátótswé* 'lizards', *bò-ḡhògyì* 'hares'

Noun classes are paired: classes 1, 1a, 3, 5, 7, 9 and 14 contain singular nouns, and classes 2, 2a, 4, 6, 8 and 10 their corresponding plurals. Class 14 contains many nouns that cannot take a plural. Those that do, take their plural in class 6. Some nouns follow different singular/plural pairings: there are certain nouns that take their singular in class 5 but their plural in class 10 instead of 6, e.g. *li-bá* 'reed fence', *dì-pá* 'reed fences', *li-nálá* 'nail', *dì-nálá* 'nails'.

Class 1 contains only nouns that refer to human beings, e.g. *mò-dòχì* 'traveler', *mò-lólà* 'man', *mò-tʰò* 'person'. Class 1a contains kinship terms, e.g. *φ-áyò* 'mother', *φ-mámà* 'grandparent', *φ-ráŋwání* 'father's younger brother'. The majority of words for animals and (smaller) plants are also in class 1a, e.g. *φ-fóró* 'lizard', *φ-tʰògyì* 'hare', *φ-ùrùtʰwé* 'baboon', *φ-kùlʰùnì* 'amaranthus'. Not all words for animals occur in this class, especially words for larger animals and/or socially and economically important animals occur in other classes, e.g. class 9 *φ-mùhó* 'cow', *φ-ìfwá* 'dog', *φ-ìqʰwè* 'leopard'.

Class 3 contains a wide variety of nouns. Especially nouns referring to trees occur in this class, e.g. *mò-g'èbè* 'large feverberry', *mò-kʰúcòmù* 'jackalberry', *mò-pʰálà* 'mopane'. Class 5 also contains a variety of nouns. Many words for body parts, especially those occurring in pairs, occur in this class, e.g. *li-bélé* 'breast', *li-hódi* 'shoulder', *li-kápú* 'cheek'. Class 6 contains the plurals of

class 5 nouns, as well as a number of nouns that do not occur in the singular, mostly those referring to liquids, e.g. *mà-ází* ‘water’, *mà-kùrà* ‘fat, oil’, *mà-dí* ‘blood, money’, but also other mass nouns, e.g. *mà-hítólò* ‘breakfast’, *mà-bú* ‘soil’, *mà-nókò* ‘groundnuts’. Class 7 contains, among many others, nouns referring to languages, e.g. *fi-rwá* ‘Tswana’, *fi-gùbà* ‘Yeyi’, and nouns referring to persons with disabilities, e.g. *fi-hóhù* ‘blind person’, *fi-wòpà* ‘infertile person’, *fi-pònipóni* ‘dwarf’; these terms are considered derogatory, as they dehumanize people by referring to them as objects. Class 9 also contains a wide variety of nouns, including many deverbal nouns, *t^hósò* ‘help’, from *χò-t^hós-à* ‘to help’, and *tíhò* ‘job’, from *χò-dih-à* ‘to do, make’. Class 14 mainly contains abstract concepts, e.g. *bò-hómí* ‘riches’, *bò-ńtè* ‘beauty’, *bò-nlú* ‘youth’, as well as other non-count nouns, e.g. *bò-fi* ‘smoke’, *bò-dʒwàlá* ‘beer’, *bò-dúrò* ‘building’.

Nouns can be marked as locative by a prefix *ha-* or *mu-*. These appear to be reflexes of the nominal prefixes of the locative classes 16 and 18, reconstructed for Proto-Bantu as **pa* and **mu* respectively (Meeussen 1967). More research is needed to investigate the presence of a reflex of the class 17 locative prefix **ku*, as well as to what extent these prefixes still function as nominal prefixes. The current data provide no evidence for classes 16 and 18 still triggering agreement in Shetjhauba, unlike in other Shekgalagadi varieties .

- (116) *hà-li-hódi*
 LOC-NP₅-shoulder
 ‘on the shoulder’
- (117) *mò-ø-t^hòtò*
 LOC-NP₉-house
 ‘in the house’

Location can also be marked with a suffix on nouns. This suffix is identical to the final vowel of the noun it attaches to. The only exception is nouns ending in a vowel /a/, in which case both the noun’s final stem vowel and the following locative are realized as /e/. Regardless of the tone of the noun’s final vowel, the locative suffix is realized as low-toned.

- (118) *mí-zì-i*
 NP₄-village-LOC
 ‘at the villages’
- (119) *ø-t^hòtò-ò*
 NP₉-house-LOC
 ‘at the house’
- (120) *ø-ts’ímó-ò*
 NP₉-field-LOC
 ‘at the field’
- (121) *ø-t^hóχó-ò*
 NP₉-head-LOC
 ‘at the head’
- (122) *ø-nòqχé-è < nòqχá*
 NP₉-river-LOC
 ‘at the river’

- (123) ø-tsilè-è < tsilà
 NP₉-road-LOC
 ‘at the road’

The locative prefix and suffix may also be combined on the same noun.

- (124) mò-t^hóχó-ò
 LOC-head-LOC
 ‘on the head’
- (125) mò-pìdžé-è
 LOC-pot-LOC
 ‘in the pot’

3.2. Demonstratives. Shetjhauba has three paradigms of demonstratives, distinguished by deixis, as illustrated in (126)-(128): proximal demonstratives indicate general proximity, distal demonstratives indicate general distance, and medial demonstratives indicate general proximity to the hearer (but not the speaker).

- (126) li-džwè lé
 NP₅-stone DEM.PROX₅
 ‘this stone’
- (127) li-džwè léfíyò
 NP₅-stone DEM.MED₅
 ‘that stone (close to the hearer)’
- (128) li-džwè léfíyà
 NP₅-stone DEM.DIST₅
 ‘that stone’

Proximal demonstratives are also used to link an adjective to a noun, as discussed in 3.3, and to introduce relative clauses. The demonstrative agrees in noun class with the antecedent and is the first element of the relative clause.

- (129) mò-zi ó kì-ò-bwál-â-χó
 NP₃-village DEM₃ SM_{1SG}-OM₃-see-FV-PRES.DJ
 ‘the village that I see’
- (130) mò-lólà yó ò-tséχ-â-yò
 NP₁-man DEM₁ SM₁-laugh-FV-PRES.DJ
 ‘the man who is laughing’

Demonstratives agree in noun class with the head noun. Table 3 gives the full paradigm of demonstratives attested in Shetjhauba.

Table 3: Demonstratives

	Proximal	distal	medial
1, 1a	yó	yówà	yówò
2	m̀bà	m̀bàyà	m̀bàyò
3	(w)ó	(w)óyà	wóyò
4	yé	yéyà	yéyò
5	lé	lélìyà	lélìyò
6	úwà	úwàyà	úwàyò
7	ʃé	ʃéfià	ʃéfiyò
8	zé	zébìyà	zébìyò
9	yé	yéyà	yéyò
10	dʒé	dʒédìyà	dʒédìyò
14	dʒò	dʒóbùyà	dʒóbùyò

As can be seen from Table 3, the demonstratives of the distal and medial paradigms appear to be derived from the proximal paradigm. The medial demonstratives use a final vowel *-o* where the distal demonstratives use a final vowel *-a*.

3.3. Adjectives. Adjectives in Shetjhauba modify nouns through a combination of a nominal prefix on the adjective which agrees with the head noun, and a demonstrative, which also agrees with the head noun.

- (131) lì-χàχà lé lì-tùl̀à
 NP₅-cave DEM₅ NP₅-big
 ‘a big cave’
- (132) ø-pidʒà yé ñ-ts^hù
 NP₉-pot DEM₉ NP₉-black
 ‘a black pot’
- (133) dì-pidʒà jé díñ-ts^hù
 NP₁₀-pot DEM₁₀ NP₁₀-black
 ‘black pots’
- (134) bò-dʒwàl̀à dʒó bù-nl̀ú
 NP₁₄-beer DEM₁₄ NP₁₄-small
 ‘small beer’

Adjectival stems in Shetjhauba include concepts describing size, such as *tùl̀à* ‘big’, *nl̀ú* ‘small’, *télèlè* ‘long’, *kùtsínál̀à* ‘short’, *níná* ‘fat’, or colour, such as *kùbì* ‘red’, *ts^hù* ‘black’. Adjectives typically follow the noun they modify.

3.4. Connectives. Shetjhauba makes use of a connective morpheme *á-* to connect two nouns, for instance in a relationship of possession or association. The connective *á-* occurs between the two nouns of the connective construction and takes an agreement prefix that agrees in noun class with the preceding noun. An example of a connective construction is given in (135).

- (135) mò-filà w-á tàú
 NP₃-tail AP₃-CON lion
 ‘the tail of the lion’

It is unclear whether the connective morpheme is dependent on the following noun, as a prefix or clitic, or functions as an independent word. A better understanding of its phonological interaction with the following noun, especially with regard to tone, would resolve this issue.

Table 4 lists the agreement prefixes for each class.

Table 4: Agreement prefixes on the connective

	agreement prefixes
1	w-
2	b-
3	w-
4	y-
5	l-
6	∅-
7	ʃ-
8	z-
9	y-
10	dʒ-
14	dʒ-

3.5. Possessives. Possessive pronouns follow the noun they modify and show agreement with the noun they modify through an agreement prefix; the same agreement prefixes as those occurring on connective prefixes (see 3.4) are used. Table 5 gives an overview of the possessive pronouns that are used in Shetjhauba.

Table 5: Possessive pronoun stems

	singular	plural
first person	ami	etʃu
second person	aʒo	enu
third person	aʒwe	abo

An example of a noun modified by a possessive is given in (136).

- (136) di-làbù dʒ-ámi
 NP₁₀-shoe AP₁₀-POSS_{1SG}
 ‘my shoes’

3.6. Personal pronouns. Shetjhauba uses the following personal pronouns.

	SG	PL
1	nná	tʃ ^h òlá
2	wèdí	nùlá
3	yèlé	mbwàlá

Since a first-, second- or third-person subject or object is also marked on the verb, personal pronouns are often optional. One context where personal pronouns are used is with the comitative *ni-*.

(137) ní-nnà
COM-PERS_{1SG}
'with me'

(138) ní-wèdí
COM-PERS_{2SG}
'with you'

3.7. Nominal derivation. Shetjhauba derives nouns from verbs through addition of a suffix *-i*, which derives a human agent noun, or a suffix *-o*, which derives a non-human agent.

(139) mò-ḍòχì 'traveler' < χò-ḍòχ-à 'to go'

(140) mù-ḍikídì 'traveler' < χò-ḍikil-à 'to walk'

(141) mò-dzóχì 'builder' < χò-dzóχ-à 'to build'

(142) mò-χátó 'style of walking', qχátó 'sole of foot' < χòχátá 'to stamp'

(143) lì-hèhò 'spoon' < χò-hèh-à 'to stir'

Diminutive nouns can be derived with a diminutive suffix that has the forms *-ala* / *-nala*. *-nala* is added after the nominal stem without any phonological changes to the stem, as shown in (144). *-ala* causes changes to the final vowel of the nominal stem, which is changed to /w/ in case of a back vowel and dropped in all other cases, as shown in (145).

(144) Diminutive *-nala*: lì-ḵwè-nàlà 'small stone' < lì-ḵwè 'stone', tsilà-nàlà 'small path' < tsilà 'path'

(145) Diminutive *-ala*: mùhw-àlà 'calf' < mù:hó 'cow', ḵi-dib-àlà 'small well' < ḵi-dibà 'borehole, well', tʃ^hòg-àlà 'baby hyena' < tʃ^hógí 'hyena'

Semantically, the diminutive *-alal-nala* expresses small size or, in the case of animates, young age.

(146) kílàw-àlà 'baby crocodile' < kílàò 'crocodile'

(147) mò-gúb-àlà 'Yeyi child' < mò-gúbà 'Yeyi person'

4. Verbal morphology

As is typical for Bantu languages, Shetjhauba verbs are morphologically complex. The infinitive form of a verb consists of a lexical root, preceded by an infinitive prefix *χo-*, and followed by a suffix *-a*. This suffix is used in many verbal inflections as well and is therefore difficult to link to a particular function. A similar suffix occurs in many other Bantu languages where it is classified as a "final vowel", an analysis which I also follow here.

- (148) χò-tóq-à
INF-peck-FV
'to peck'

Shetjhauba also has a subset of verbs that do not take the final vowel suffix *-a*, however, but have a root that ends in a vowel. All attested verbs without final vowel *-a* are listed in (149).

- (149) χù-ízi 'to know'
χò-nírì 'to bring'
χò-bwíí 'to appear'
χò-tʃíbítʃíbì 'to blink'
χò-nlàè 'to tell (a story)'
χò-láí 'to be weak, lazy'

Verb roots can be derived with suffixes that are added directly after the root; these are discussed in 4.1. Verbal inflection makes use of prefixes, suffixes or combinations thereof, which mark tense, aspect, and polarity; these are discussed in 4.2. Subjects and objects are also marked on the verb, as shown in 4.3.

4.1. Verbal derivation. Shetjhauba makes use of a passive *-(i)w*, a causative *-is*, an applicative *-el*, a reciprocal *-al*, and a separative *-(ol)ol/-(ol)ox*.

The passive suffix is realized as *-iw* with disyllabic verb roots and *-w* with longer verb roots.

- (150) χò-lòm-íw-à
INF-bite-PASS-FV
'to be bitten'
- (151) χò-bùlèl-w-à
INF-open-PASS-FV
'to be opened'

No morphophonology affects the last stem consonant of the verb. In this sense Shetjhauba differs from most other Sotho languages, including the Shengologa variety of Shekgalagadi, where the use of the passive suffix causes changes to the last consonant of the verb stem if this is a bilabial consonant (Lukusa and Monaka 2008: 93-96). Examples (152)-(153) show that no such changes occur in Shetjhauba.

- (152) χò-tʰòpʰ-à 'to choose' > χò-tʰòpʰ-ìw-à 'to be chosen'
- (153) χò-χòp-à 'to rake' > χò-χòp-ìw-à 'to be raked'

There are two ways of forming a causative in Shetjhauba: with a suffix *-is*, or with morphophonological changes to the final consonant of the verb stem. The suffix *-is* is added after the verb root and does not trigger any morphophonological changes.

- (154) χò-yìb-à 'to steal' > χò-yìb-is-à 'to assist a thief'
- (155) χò-réq-á 'to buy' > χò-rèq-ís-à 'to sell'

Causatives can also be marked by a change to the last consonant of the verb stem. In the case of verb roots ending in /l/, the causative changes the final root consonant to /dʒ/. This process is not

regular, however, and only occurs in a restricted set of verbs, listed in (156)-(159). There are also verb roots ending in /l/ that take the causative suffix *-is*, as shown in (160)-(161).

- (156) χò-lál-à ‘to lie down’
χò-ládʒ-à ‘to make lie down’
- (157) χò-ḡòl-à ‘to smear’
χò-ḡòdʒ-à ‘to smear someone’
- (158) χò-ḡál-à ‘to become full’
χò-ḡádʒ-à ‘to make full’
- (159) χò-hèl-à ‘to finish, come to an end’
χò-hèdʒ-à ‘to finish, bring to an end’
- (160) χò-lil-à ‘to cry’
χò-lid-is-à ‘to make cry’
- (161) χò-dʒwàl-à ‘to plough’
χò-dʒwàd-is-à ‘to make plough’

The causative adds a participant to the argument structure of the verb, which is interpreted as causing the action.

- (162) k-à-mò-líd-is-à
SM_{1SG}-PST-OM₁-cry-CAUS-FV
‘I’ve made him cry.’

Shetjhauba has an applicative suffix *-el*, as shown in example (163).

- (163) χò-fjòp-à ‘to witness’ > χò-fjòp-èl-à ‘to witness for’

When used with a verb stem that ends in a uvular consonant, the use of the applicative suffix causes the final consonant to change its place of articulation to postalveolar. This is the case for the uvular fricative /χ/, which changes to /ʃ/ when followed by the applicative suffix, as shown in (164), and for the uvular affricate /qχ/, which changes to a postalveolar affricate /tʃ/ when followed by the applicative, as shown in (165).

- (164) χò-rèléχ-à
INF-cook-FV
‘to cook’
χò-mò-rélf-èl-à
INF-OM₁-cook-APPL-FV
‘to cook for him’
- (165) χò-ròq-à
INF-sew-FV
‘to sew’
χò-rútʃ-él-à
INF-sew-APPL-FV
‘to sew for’

The applicative adds an extra object argument to the argument structure of the verb, which can have various functions, for instance a beneficiary, as in (166), or a direction, as in (167)-(168).

- (177) Conjoint present: zero-marked
 ò-rùt-á-∅ bà-twâlà
 SM₁-teach-FV-CJ.PRES NP₂-child
 ‘He teaches children.’
- (178) Disjoint present: *-yo* (for subjects of class 1, 4, 9)
 ò-rùt-á-yò
 SM₁-teach-FV-DJ.PRES
 ‘He teaches.’
- (179) Disjoint present: *-χo* (elsewhere)
 kì-lwâl-â-χó
 SM_{1SG}-be_sick-FV-DJ.PRES
 ‘I am sick.’

Although the general tendency is for disjoint presents to be used sentence-finally, there are a number of contexts where a disjoint present can be used even though another constituent is following. This is the case when the following constituent is an object noun phrase, and the same object is also cross-referenced through an object marker on the verb, as in (180).

- (180) kì-mò-rát-â-χó mò-twâlà yó
 SM_{1SG}-OM₁-like-FV-DJ.PRES NP₁-child DEM₁
 ‘I like this child.’

The second context where a disjoint present can be used in combination with a following constituent is when the speaker stresses the progressive nature of the event. This is illustrated in the following examples: in (181), the disjoint present is used to express that the speaker is working right now, whereas in (182) the conjoint present is used, which is interpreted as an action not necessarily taking place at the moment of speaking.

- (181) kì-bèrèk-â-χó máhà
 SM_{1SG}-work-FV-DJ.PRES here
 ‘I am working here (right now).’
- (182) kì-bèrèk-à máhà
 SM_{1SG}-work-FV-CJ.PRES here
 ‘I work here (habitually, not necessarily right now).’

Past tense is marked by a prefix *a-* used before the verb stem. Its interpretation is that of recent past.

- (183) k-à-ì-tóm-á
 SM_{1SG}-PST-REFL-bite-FV
 ‘I’ve bitten myself.’
- (184) ò-à-réléχ-à
 SM_{2SG}-PST-cook-FV
 ‘You have cooked.’

The prefix *ni-* can be added to the past to create a remote past, as in (185)-(186), or to the perfect form to create a perfective past, as in (187).

- (185) ni-χ-á-bwàl-àl-à mòòbáyá
 REM-SM_{1PL}-PST-see-REC-FV yesterday
 ‘We have seen each other yesterday.’
- (186) ni-b-á-tsêχ-à
 REM-SM₂-PST-laugh-FV
 ‘They have laughed.’
- (187) ni-kì-lwàd-ílé
 REM-SM_{1SG}-be_sick-PRF
 ‘I was sick (a long time ago).’

The perfect is marked by a suffix *-ile*. Its use changes a preceding uvular consonant to a postalveolar fricative or affricate.

- (188) kí-lòtʃ-ílé-χó ‘I have spoken’ < χò-lòq-à ‘to speak’
 (189) lí-p^hàṭòʃ-ílé-χó ‘it is broken’ < χò-p^hàṭóχ-à ‘to break’

The perfect suffix interacts with verbal derivational suffixes. When used with the passive *-(i)w*, the perfect is realized as *-ilwe*.

- (190) kí-lòm-ílwê-χó
 SM_{1SG}-bite-PRF.PASS-PRES.DJ
 ‘I have been bitten.’

When used with the causative *-is*, the perfect is realized as *-ize*.

- (191) kí-mò-lid-is-ízê-χó
 SM_{1SG}-OM₁-cry-CAUS-PRF-PRES.DJ
 ‘I have made him cry.’

When used with the applicative *-el*, the combination of the perfect and the applicative suffixes are realized as *-ei*. This is also the case for verbs with an apparent *-el* suffix that does not function as an applicative, at least not synchronically.

- (192) kí-mò-dzòʃ-éí-χó (< dzóχ-èl-à ‘build for’)
 SM_{1SG}-OM₁-build-PRF.APPL-PRES.DJ
 ‘I’ve built for him.’
- (193) bà-ítùm-éí-χó (< ítúmél-à ‘be happy’)
 SM₂-become_happy-PRF.APPL-PRES.DJ
 ‘They are happy.’

When used with the reciprocal *-al*, the perfect suffix is realized as *-i*. Furthermore, the reciprocal suffix is realized as *-aŋ* rather than *-al*.

- (194) bà-bwàl-áŋ-î-χó (< bwál-ál-à ‘see each other’)
 SM₂-see-REC-PRF-DJ.PRES
 ‘They’ve seen each other.’

- (195) bà-ràt-áṅ-î-χό (< rát-ál-à ‘have an affair’)
 SM₂-love-REC-PRF-DJ.PRES
 ‘They have had an affair.’

These morphophonological changes only take place when the perfect suffix is used with a sequence *-al* that functions as a reciprocal suffix. Verb stems may also end in a sequence *-al* that does not function as a reciprocal suffix, but either as part of the verb stem, or possibly as a different kind of derivational suffix. In this case, the perfect combines with the final *-al* sequence of the verb to be realized as *-ei*.

- (196) lì-ḍéi-χό (< ḍál-à ‘become full’)
 SM₅-become_full.PRF-PRES.DJ
 ‘It is full.’
- (197) bà-bwàl-éî-χό (< bwálál-à ‘be visible’)
 SM₂-be_visible-PRF-PRES.DJ
 ‘They are visible.’
- (198) kì-lib-éî-χό (< libál-à ‘forget’)
 SM_{1SG}-forget-PRF-PRES.DJ
 ‘I have forgotten.’

The perfective combines with the suffixes *-χo* and *-yo*, same as the present, under similar conditions, e.g. the suffix is absent when the verb is followed by another constituent, as in (199), and present when the verb is clause-final, as in (200). The combination of the suffix with a following constituent signifies verb focus, as in (201).

- (199) kì-rètʃ-ílé qχùχù
 SM_{1SG}-buy-PRF NP₉.chicken
 ‘I have bought a chicken.’
- (200) kì-rètʃ-ílê-χό
 SM_{1SG}-buy-PRF-PRES.DJ
 ‘I have bought.’
- (201) kì-rèlèʃ-ílê-χό màkúkú
 SM_{1SG}-cook-PRF-PRES.DJ morning
 ‘I cooked this morning.’ (answer to: what did you do this morning?)

The perfect marks a completed action with relevant results. With change-of-state verbs, it typically marks a present state.

- (202) kì-làp-ílê-χό
 SM_{1SG}-become_tired-PRF-PRES.DJ
 ‘I am tired.’
- (203) ò-zùʃ-ílé-yò
 SM_{2SG}-wake-PRF-PRES.DJ
 ‘He is awake.’

The future is marked by a prefix *ḍe-* used after the subject marker, as illustrated in (204)-(205).

- (204) ì-ḍè-n-à hò^mbè
 SM₉-FUT-rain-FV today
 ‘It will rain today.’
- (205) kì-ḍé-χò-t^hús-à
 SM_{1SG}-FUT-OM_{2SG}-help-FV
 ‘I will help you.’

Negation of inflected verbs involves a prefix *ha-* and a suffix *-i*. No disjoint suffix *-χo/-yo* is used with the negative present.

- (206) hà-kí-bwâl-ì
 NEG-SM_{1SG}-see-NEG
 ‘I don’t see.’
- (207) hà-á-tséχ-í
 NEG-SM₁-laugh-NEG
 ‘He is not laughing.’

The infinitive is negated by a prefix *sa-*, which is added after the infinitive prefix and before the verb stem.

- (208) χò-sá-bwâl-á
 INF-NEG-see-FV
 ‘to not see’

4.3. Subject and object marking. Subject and objects are marked on the verb through prefixes. The subject marker precedes the object marker. The object marker occurs directly before the verb stem. Table 6 gives an overview of subject and object markers in Shetjhauba. The tones of subject and object markers are variable, most likely depending on the length and lexical tones of the verb root as well as its inflection, so subject and object markers are presented without tone in the table.

Table 6: Subject and object markers

	Subject markers	Object markers
1SG	kt-	N-
2SG	ɔ-	xɔ-
3SG	ɔ-	mɔ-
1PL	xɔ-	hi-
2PL	nt-	nt-
3PL	ba-	ba-
1	ɔ-	mɔ-
2	ba-	ba-
3	ɔ-	ɔ-
4	i-	i-
5	lt-	lt-
6	a-	a-
7	ʃt-	ʃi-
8	bi-	bi-
9	t-	yt-
10	di-	di-
14	bɔ-	bɔ-

Subject agreement is obligatory, whether a nominal subject is present, as in (209), or absent, as in (210).

(209) bà-twàlàbá-w-â-χó
 NP₂-child SM₂-fall-FV-PRES.DJ
 ‘The children are falling’

(210) bá-w-â-χó
 SM₂-fall-FV-PRES.DJ
 ‘They are falling.’

Object agreement is only possible when no nominal object is present, as in (211).

(211) kí-mò-bwál-â-χó
 SM_{1SG}-OM₁-see-FV-PRES.DJ
 ‘I see him.’

The first singular object marker is a syllabic nasal that adapts its place of articulation to that of the following consonant, as shown in (212)-(215). It is accompanied by strengthening, a set of morphophonological changes to the initial root consonant of the verb that are discussed in section 2.3.

- (212) χòbwálá ‘to see’ > χòmpwálá ‘to see me’
 (213) χùp^hailá ‘to slap’ > χùmp^háilá ‘to slap me’
 (214) χùdihà ‘to make’ > χùṅtíhêlà ‘to make for me’
 (215) χòkwálá ‘to write’ > χòṅkwálêlà ‘to write for me’

Multiple object markers can be used on the same verb.

- (216) ò-ǰí-bà-làb-ís-â-yò
SM₁-OM₇-OM₂-look-CAUS-FV-PRES.DJ
'He shows it [a tree] to them [the children].'
- (217) ò-yì-m-pólá-él-â-yò
SM₁-OM₉-OM_{1SG}-kill-APPL-FV-PRES.DJ
'He kills it [a snake] for me.'

A reflexive is marked by a prefix *i-* directly before the verb stem. It combines with the morphophonological process of strengthening (see section 2.3), causing changes to the initial consonant of the verb root.

- (218) χòrútá 'to teach' > χòit^hútá 'to learn'
- (219) χòbwálá 'to see' > χòipwálá 'to see oneself'

Glossing abbreviations

AP	agreement prefix	NEG	negative
APPL	applicative	NP	nominal prefix
CAUS	causative	OM	object marker
CJ	conjoint	PASS	passive
COM	comitative	PERS	personal pronoun
CON	connective	POSS	possessive pronoun
DEM	demonstrative	PRES	present
DIST	distal	PRF	perfect
DJ	disjoint	PROX	proximal
FUT	future	PST	past
FV	final vowel	REC	reciprocal
INF	infinitive	REFL	reflexive
LOC	locative	REM	remote
MED	medial	SM	subject marker

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