Chapter 6

Verbs

The present chapter describes the verb in Sandawe. Subject/modality markers, negation markers and mediative markers are clitics which are not all necessarily attached to the verb. They are discussed separately in chapter Chapter 5.

Most verbs fit into the general verbal structure as presented below. A second group, which contains the zero verb stem for acts of exchange and the special verbs ‘to be somewhere’, ‘to have’, and adjectival verbs, have different formal properties. The verbs in the latter group are discussed in sections 6.6 and 6.7.

In order to give a general overview of the verb, the internal structure is presented schematically in a system of slots and fillers.

<table>
<thead>
<tr>
<th>Root Stem</th>
<th>Extended Stem</th>
<th>PL</th>
<th>Pro</th>
<th>Case##Pro</th>
</tr>
</thead>
<tbody>
<tr>
<td>(SG/PL)</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>RED</td>
<td></td>
<td>wå</td>
<td>OBJ</td>
<td>OBJ</td>
</tr>
<tr>
<td>IT</td>
<td></td>
<td>wå</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FACT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAUS1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAUS2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MID1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MID2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The description in the following sections is ordered from left to right, i.e. from the verb root to the verbal case markers. The structure of the verb root is described in section 6.1. A restricted number of verb roots and extended stems is paired and functions as singular/plural verb stem pairs. These pairs are also discussed in section 6.1. Sections 6.2.1 to 6.2.6 deal with extended verb stems. Reduplicated, iterative, factitive, causative, middle, and reciprocal stems are discussed. The description of causative 2 stems is followed by a comparison between the three stem types that introduce an extra agent into the argument structure of the verb: factitive, causative 1, and causative 2 stems. It is shown that the three can be distinguished semantically by the degree of active involvement of the arguments in the event.

Pronominal direct object marking is described in section 6.3. After a discussion of the object pronouns, the morphological processes by which they are attached to the verb are discussed. As these processes also apply to verbal plurality marking, this section is presented before the section on verbal plurality marking.
In section 6.4 verbal plurality marking is described, as by the plural object marker ∼wá / ∼wá and by the plural non-direct object marker ∼wá. These two markers are mutually exclusive. Note that the position of these markers in table 21 is an abstraction: if ∼wá or ∼wá appears in middle 1 and reciprocal stems, its position is before the extension. The non-direct object marker ∼wá excludes the use of a direct object pronoun, but it does occur before the verbal case markers ∼ká (comitative/instrumental) and ∼ts'ë (applicative), in order to code the plurality of the oblique object. As a subject plurality marker or as a habitual marker, ∼wá is the final element in the verb form and can only be followed by a clitic.

Section 6.5 discusses verbal case marking. The verbal case markers ∼x' (benefactive), ∼ká (comitative/instrumental), and ∼ts'ë (applicative) introduce an (additional) object into the argument structure of the verb. This object is coded by the same object suffixes as used for direct objects.

6.1. Verb root

The verb root is the smallest morphologically analyzable form of the verb. The number of syllables in Sandawe verb roots ranges from one to four, but the majority of roots is monosyllabic or disyllabic. Certain monosyllabic and disyllabic roots undergo changes when they form the basis of the following verb forms: causative stems; middle stems; verbs with a direct object pronoun; verbs with the plural object marker. For a description of these changes, see sections 6.2.4, 6.2.5, 6.3, and 6.4.1, respectively.

Monosyllabic verb roots minimally consist of a consonant and a vowel (CV). C represents any consonant, and may be simple or complex (labialized). Verb roots that may be heard as having an initial vowel are analyzed as a sequence of a glottal stop and a vowel. The vowels can be short or long (CV, CVV). All vowel qualities (i.e., a, o, u) have been observed in CV roots. The following list illustrates this, showing all vowel qualities and types that occur in CV roots.

<table>
<thead>
<tr>
<th>Root</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tô</td>
<td>come out, leave</td>
</tr>
<tr>
<td>thâ</td>
<td>run (SG stem)</td>
</tr>
<tr>
<td>li</td>
<td>come (SG stem)</td>
</tr>
<tr>
<td>l*ê</td>
<td>sleep</td>
</tr>
<tr>
<td>khwâà</td>
<td>return</td>
</tr>
<tr>
<td>n</td>
<td>wëë</td>
</tr>
<tr>
<td>thôô</td>
<td>cross, fly</td>
</tr>
<tr>
<td>n</td>
<td>êë</td>
</tr>
<tr>
<td>n</td>
<td>â</td>
</tr>
</tbody>
</table>
Monosyllabic verb roots of the form CVC are rare. The coda consonant may be a nasal or a glottal stop.\(^2\)

\[
\begin{align*}
\text{?æŋ} & \quad \text{go first, precede} \\
\text{løŋ} & \quad \text{snap, break (of wire)} \\
\text{nìʔq} & \quad \text{go (PL stem)} \\
\text{máʔã} & \quad \text{be tired} \\
\text{l’àáʔã} & \quad \text{move closer to}
\end{align*}
\]

The following tone patterns have been observed for CV(C) verb roots: H, R, F, RL and L. The RL and L patterns are both attested by only one example: \(\text{?aáʔã}\) and \(\text{khwáâ}\) respectively. Note that a rising tone can only be realized on long vowels and vowels followed by a nasal consonant (see section 2.4 for more information on tone).

Disyllabic verb roots (CV(C)CV(N)) are common. The first consonant may be simple or complex (labialized). No complex, labialized consonants have been observed for the consonant position of the second syllable in the root (note that the labialized approximant \(\text{w}\) is a simple consonant, and hence may appear in this position). The first vowel \(V\) represents any voiced vowel. The second, final vowel can be short, long, or voiceless. Examples of disyllabic verb roots are given below:

\[
\begin{align*}
\text{sìyé} & \quad \text{take (SG stem)} \\
\text{ŋ|áti} & \quad \text{come (PL stem)} \\
\text{khé|ìʔ́ŋ} & \quad \text{go round} \\
\text{sàyō} & \quad \text{converse} \\
\text{xwánínŋ} & \quad \text{make small holes and heaps of sand with feet} \\
\text{tátáŋ} & \quad \text{go first, precede} \\
\text{büáwé} & \quad \text{pour empty} \\
\text{màná} & \quad \text{know} \\
\text{mèná} & \quad \text{love} \\
\text{mántshá} & \quad \text{eat} \\
\text{l’úm} & \quad \text{ripen} \\
\text{t’àáʔé} & \quad \text{die (PL stem)}
\end{align*}
\]

\(^2\) The rare occurrence of CVN roots may have a historical explanation. Next to the occurrence of monomorphemic roots ending in a nasal, there is a clitic consisting of a nasal that marks a multi-verb construction at the end of the verb (see section 7.1 on the linker). Phonetically, a CVN root cannot be distinguished from a linked verb of the form CV-N. The final nasal consonant in verb roots may have disappeared gradually in order to distinguish linked verb forms from non-linked forms.

The rare occurrence of glottal stops in coda position is valid throughout the Sandawe lexicon.
The following tone patterns have been observed in disyllabic roots: HH, LL, R, F, LHL. The all L pattern (as in sāyā) is infrequent and the HLH pattern is absent, pointing towards a tendency for disyllabic verb roots to have either one high tone, or high tones uninterrupted by low tones.

CVCVCV roots are illustrated below:

- dzândzūkē put on one’s back
- hándzókhā attack
- hánàkī sit (Pl. stem)
- hétēkā marry
- hēŋìäkī enter (with many)
- kōnáwā damage
- kōsēgā think
- k’ūk’ūfẽ shoot up
- khökhtōtā invite
- tūtūbē be bruised
- mōkōlā greet
- pērērā investigate, examine
- pārārē cure by sweeping a feather; sketch on the ground
- rōmiyā eat together with (food)
- sāwāʔatē yawn
- sōkīnā disturb, abuse
- xārātē gather rubbish
- ḥ’ósāŋkĩ rest
- ḥak’āts’a ask
- ḥānākhāa set out to dry

The examples show that a canonical structure for CVCVCV roots cannot be given. However, some observations can be made. There appear to be no restrictions on the occurrence of simple consonants. There are no examples of roots containing labialized consonants. Long vowels are rare. All vowel qualities occur, but the majority of roots have a final a or e.

Longer verb roots are very rare. Only one example has been found for a CVCVCV root:

- phāmbárąngē resemble

---

43 This verb root appears to have originated in a noun root, cf. dzändzā ‘back’ and the verbal case marker –sūkă (causative 2).
44 This root is very likely a Bantu loan, cf. Swahili anika ‘set out to dry’.
A restricted set of Sandawe verbs can be grouped in order to form pairs of suppletive singular/plural verb stems. The tables 22 and 23 below illustrate intransitive and transitive pairs, respectively:

### Table 22: Intransitive singular/plural verb stems

<table>
<thead>
<tr>
<th>Singular verb stem</th>
<th>Plural verb stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hákìts’</td>
<td>hánàkì</td>
<td>sit</td>
</tr>
<tr>
<td>hìk’</td>
<td>nìfì</td>
<td>go</td>
</tr>
<tr>
<td>twéʔì</td>
<td>[áááts’]</td>
<td>come out suddenly</td>
</tr>
<tr>
<td>thà</td>
<td>qír’bë</td>
<td>run</td>
</tr>
<tr>
<td>tháinì</td>
<td>qír’bënàŋkì</td>
<td>run (centripetal)</td>
</tr>
<tr>
<td>tìsáqì</td>
<td>tìqìtì</td>
<td>die</td>
</tr>
<tr>
<td>ts’òk’ì</td>
<td>tì’òŋ</td>
<td>jump up and leave hastily</td>
</tr>
<tr>
<td>?yì</td>
<td>nìbì</td>
<td>stay</td>
</tr>
<tr>
<td>?ì</td>
<td>nìtì</td>
<td>come</td>
</tr>
<tr>
<td>!’ìwë</td>
<td>lìhòbì</td>
<td>fall</td>
</tr>
<tr>
<td>ŋìní</td>
<td>l’áŋqì</td>
<td>lie down</td>
</tr>
<tr>
<td>ŋìùmë</td>
<td>tëë</td>
<td>stand up(right) 45</td>
</tr>
<tr>
<td>ŋìùméwà</td>
<td>tëëwà</td>
<td>stretch legs, stroll</td>
</tr>
</tbody>
</table>

### Table 23: Transitive singular/plural verb stems

<table>
<thead>
<tr>
<th>Singular verb stem</th>
<th>Plural verb stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>pëbì</td>
<td>kààì</td>
<td>put</td>
</tr>
<tr>
<td>sìyë</td>
<td>tì’ìhà</td>
<td>take</td>
</tr>
<tr>
<td>ts’òk’ì–sè</td>
<td>tì’òn–sè</td>
<td>scare away</td>
</tr>
<tr>
<td>ò</td>
<td>khùʔìq–sè, !hòbì–kìpì</td>
<td>throw 46</td>
</tr>
<tr>
<td>ŋìùŋkwë</td>
<td>tì–kìpì–wà</td>
<td>put on fire; plant; set upright (pillar)</td>
</tr>
</tbody>
</table>

---

45 Note that two other pairs are related to this singular/plural stem pair:

| ŋìùmì | (’ì’ìm–ë) | tëë | (’ì’a–ë) | ‘stand up(right)’ |
| ŋìùméwà | (’ì’ìm–ë–wà) | tëëwà | (’ì’a–ë–wà) | ‘stretch legs, stroll’ |

46 Several verb forms have been observed as the plural counterpart for [ò]. The factitive stem khùʔìq–sè has often been mentioned. This stem may occur with extra plural marking(s): khùʔìmò́q, khùʔìmstìq. However, all these forms have a more specific meaning than the singular stem, i.e. ‘throw away, discard’.

The causative verb !hòbì–kìpì ‘make fall (pl stem)’ was also observed. It is derived from the intransitive plural verb stem !hòbì.
The members of the pairs are generally simple stems, but there are some exceptions:

- There are two instances of middle 1 stems (cf. 6.2.5): hàkìts ‘sit (SG stem)’ and hà’étì ‘come out suddenly (PL stem)’. For each stem, its counterpart is not a middle-marked verb.
- The plural verb stem dìjìbèntỳì ‘run (centripetal) (PL stem)’ contains the reciprocal stem marker –ŋki.
- The pair nììwà / ììwà ‘stroll’ contains a fossilized plural marker –wà.
- The pair ts’òk’–sé / tì’n–sé ‘scare away’ consists of two factitive stems. These stems are derived from the intransitive pair ts’òk’ / tì’n ‘jump up and leave hastily’.
- The plural verb stems khùtỳ’–sé and !hòdó–kù ‘throw (away) (PL stem)’ are factitive and causative 1 stems, respectively.
- The suppletive plural counterpart of nììunjìwè has a plural object marker –wà. fà–kù–wà cannot be used without the plural object marker (in order to function as a singular verb stem). Neither can the verb stem code plurality when the plural object marker is omitted. Therefore, the suppletive plural verb stem of nììunjìwè is fà–kù–wà, rather than fà–kù.

Two stems could be considered as a suppletive pair: nììbè ‘enter, arrive’ and hèŋ||ákì ‘enter, arrive (with many)’. However, although hèŋ||ákì can only be used with plural subject participants, nììbè is used both with singular and plural subjects. Therefore the two verbs have not been included in the table of pairs above.

There are thirteen intransitive pairs, and five transitive pairs. The plural verb stem of intransitive verbs codes plurality of the subject argument. The example below contrasts singular and plural subject participants. The use of the singular versus plural stem is obligatory. Even though the subject clitic includes number marking, singular subjects can not appear with plural stems and vice versa.

\[
\begin{align*}
\text{?ùtè=šì} & \quad \text{hìk’ì} & \quad (* \text{nìtà}) \\
\text{yesterday}=\text{SG} & \quad \text{go}=\text{SG} \\
\text{I went yesterday.} \\
\text{?ùtè=ò} & \quad \text{mìtài} & \quad (* \text{hìk’hì}) \\
\text{yesterday}=\text{PL} & \quad \text{go}=\text{PL} \\
\text{We went yesterday.}
\end{align*}
\]

The plural stem of transitive verbs codes plurality of the object participant. In the following examples, which contrast the singular and the plural stem, nominal plural marking is absent. The object màtò ‘gourd’ can only be interpreted as a plural object because of the use of the plural verb stem.

\[
\begin{align*}
\text{màtò=sì} & \quad \text{‘sìyè} \\
\text{gourd}=\text{SG} & \quad \text{sv.take}=\text{SG} \\
\text{I took a gourd.}
\end{align*}
\]
6.2. Extended verb stems

An extended stem usually consists of a verb root and a derivational extension, except for reduplicated stems, where the verb root is doubled. Not all examples of extended stems have an underived verbal counterpart. Those extended stems that do not have an underived counterpart are mentioned separately in the description. Like verb roots, extended stems function as a base for pronominal marking, either by direct object pronouns, or by verbal case markers in combination with an object pronoun.

Six types of extended verb stems are distinguished:

1) verb stems resulting from reduplication
2) iterative stems
3) factitive stems
4) causative stems (causative 1 and causative 2)
5) middle stems (middle 1 and middle 2)
6) reciprocal stems

A relative ordering of extension types depends on the possible combinations of the extensions on a single verb root. The maximum number of extensions in one verb form is two. As shown in the following table, the second extension in any combination is either a middle, a reciprocal, or a causative 2 extension.

<table>
<thead>
<tr>
<th>ROOT-EXTENSIONS</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>VR-IT-MID</td>
<td>dūbū–mō–ts’ī</td>
<td>hit oneself multiple times with fist</td>
</tr>
<tr>
<td>VR-FACT-MID</td>
<td>hāh–së–ts’ī</td>
<td>boast</td>
</tr>
<tr>
<td>VR-IT-REC</td>
<td>wèr–ìmë–ŋkǐ</td>
<td>visit each other repeatedly</td>
</tr>
<tr>
<td>VR-CAUS-REC</td>
<td>māntshà–k–wâŋkì</td>
<td>cause to wash oneself</td>
</tr>
<tr>
<td>VR-FACT-CAUS1</td>
<td>khwā̀–së–sùkỳ</td>
<td>cause (someone) to return (sth)</td>
</tr>
<tr>
<td>VR-MID-CAUS2</td>
<td>ŋjìokhò–ts’ī–sùkỳ</td>
<td>cause to wash oneself</td>
</tr>
<tr>
<td>VR-REC-CAUS2</td>
<td>l’ò–kì–sùkỳ</td>
<td>cause to meet each other</td>
</tr>
</tbody>
</table>

47 There are only two examples of factitive middle stems in my data. No underived counterpart exists for the factitive stem hāhśe ‘praise’. However, Van de Kimmenade (1954) mentions more examples of factitive middle stems, see footnote 58, section 6.2.5.
The semantics of stems with two extensions are transparent. In some stems, the meaning is compositional and the second extension has scope over the verb root plus the first extension, e.g.:

wèrè  >
walk, visit

\[ \text{wèrè} \rightarrow \text{visit-IT} \]
\[ \text{visit repeatedly} \]

\[ \text{wèrè-ìmè} \rightarrow \text{visit-IT-REC} \]
\[ \text{visit each other repeatedly} \]

However, the meaning of an extended stem with two extensions is not necessarily compositional as in the example above. Especially in iterative reciprocal stems, the iterative extension often has a more general meaning, coding plurality of action. In these verbs, the iterative is an inherent part of the reciprocal verb. This occurs in iterative reciprocal stems that do not have a simple reciprocal stem (indicating a single occurrence of the event vs. multiple occurrences), e.g. \( hàmà–mè–ñkí \) ‘insult each other’ (* \( hàmà–ñkí \) ). For more information, see section 6.2.6 on reciprocal stems.

It is difficult to make a relative ordering of extensions based on the various possible combinations. Therefore the order in which the various extended stems are described is based on both morphological, syntactic and semantic criteria. First, reduplicated stems are described. Then iterative stems are described. Factitive and causative stems are dealt with one after the other, because they both introduce an extra argument into the argument structure of the verb. Middle and reciprocal stems are described in the final two sections because of their final position in extended stems with two extensions.

### 6.2.1. Verb stems resulting from reduplication

Reduplicated verb stems are the result of a derivational process by which a verb root is fully copied. Reduplication is a productive means of derivation in Sandawe. The following examples show reduplicated verb stems, with their corresponding source forms:

<table>
<thead>
<tr>
<th>Reduplicated Stem</th>
<th>Source Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>këkë</td>
<td>ascend</td>
<td>( kë ) ascend here and there</td>
</tr>
<tr>
<td>tìk’ìtìk’ì</td>
<td>get stuck</td>
<td>( tìk’ì ) get stuck here and there</td>
</tr>
<tr>
<td>tùtù</td>
<td>go out</td>
<td>( tù ) go out here and there</td>
</tr>
<tr>
<td>ts’òngòrt’sòngòr̃i</td>
<td>jump up</td>
<td>( ts’òngòr̃i ) jump up and down</td>
</tr>
<tr>
<td>wèrèwèrè</td>
<td>stroll, walk</td>
<td>( wèrè ) stroll, walk here and there</td>
</tr>
</tbody>
</table>

For more information, see section 6.2.6 on reciprocal stems.
Verbs

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>łyé łyé</td>
<td>stay some time (SG)</td>
<td>łyé stay (SG)</td>
</tr>
<tr>
<td>ńōsāŋkì ńōsāŋkì</td>
<td>rest a bit</td>
<td>ńōsāŋkì rest</td>
</tr>
<tr>
<td>njëg njëe</td>
<td>enter here and there</td>
<td>një një enter</td>
</tr>
</tbody>
</table>

The tone pattern of the original root is retained on both parts of the reduplicated form and there is a downstep in between the two parts, which is only audible and marked if no low tone precedes or follows.

The reduplicated stems express a prolonged action, which may be continuous or not, and which is low in intensity. The following examples illustrate the prolongation of the event:

**māntshāmāntshā=kó**

eat.RED=2SG:OPT

Eat a bit more / Just continue eating! (used when a guest is hesitating or intending to stop eating)

**ʔō–ʔa łyéʔyé=ʔpò**

here-LOC stay:SG.RED=2SG:NR

Will you stay here for some time? (asked after the arrival of the addressee)

The action may be interrupted, but the sum of intervals at which the action is carried out is perceived as one event.

**ts’ōŋgṓři > ts’ōŋgṓři ts’ōŋgṓři**

jump jump.RED jump up and down

The action is often carried out with low intensity. Therefore translation equivalents often contain adverbs of degree (‘a bit’, ‘just’, ‘here and there’).

**ʔādūkįʔādūkį=sūŋ=kó**

help.RED-1PL=2SG:OPT

You help us a bit, here and there.

The event as expressed by a reduplicated stem is not necessarily one action, which is carried out by each participant in the event. Reduplicated stems are often used with plural participants, in which case the verb refers to the sum of several (consecutive or simultaneous) actions, as carried out by the individual participants.

---

48 Note that reduplicated verbs in Swahili are semantically similar. Ashton (1944:316) notes that reduplicated verbs in Swahili are used “to express continuous action or state”, or “to lessen or to modify the force of a word”. Loogman (1965:145) uses the label frequentative verbs for Swahili reduplicated verbs, which indicate “the repetition of an action at close intervals, or in such a way that the action is practically continuous over a period of time”.
That we do not get stuck (in our language)

The following examples illustrate the difference in context for the use of the verb root and the reduplicated stem. While the verb root *wéré* focuses on the aspect of going (somewhere) by foot, the reduplicated stem *wéréwéré* stresses the action of strolling: walking here and there, without a specific goal.

**Kwa Mtoro-area=1SG (sv.)walk**
I walked to Kwa Mtoro.

**walk.RED=1SG sv.stay:SG-VL**
I am walking around.

### 6.2.2. Iterative stems

Iterative stems contain the iterative suffix *-mé* or a short form of it. Most iterative stems are derived from verb roots by placing the full suffix after the verb root.

If the root-final vowel is *e*, this vowel is replaced by the suffix-initial vowel *i*. Root-final tones are replaced by the initial low tone of the suffix.

<table>
<thead>
<tr>
<th>Verbal stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>là?qd̄-mé</td>
<td>show multiple times</td>
</tr>
<tr>
<td>tʰʔɪŋkh-ɪm̥</td>
<td>kick multiple times</td>
</tr>
<tr>
<td>tʰʔɪθ-ɪm̥</td>
<td>slaughter multiple times</td>
</tr>
<tr>
<td>xàd̄-ɪm̥</td>
<td>scrape out multiple times</td>
</tr>
</tbody>
</table>

If the root-final vowel is *i*, it merges with the suffix-initial *i*. The low tone of the suffix replaces the high tone of the root.

<table>
<thead>
<tr>
<th>Verbal stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>tàŋk̆-ɪm̥</td>
<td>chase away multiple times</td>
</tr>
<tr>
<td>-ɪm̥</td>
<td>come (sg) multiple times</td>
</tr>
<tr>
<td>̩'ak̆-ɪm̥</td>
<td>descend multiple times</td>
</tr>
</tbody>
</table>

If the root ends in *a*, the short form of the suffix is used: *-mæ*. Thus, the suffix-initial vowel *i* is absent, but the low tone remains and replaces the root-final high tone.

<table>
<thead>
<tr>
<th>Verbal stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hàmà-ɪm̥</td>
<td>insult multiple times</td>
</tr>
<tr>
<td>hónà-ɪm̥</td>
<td>harvest multiple times</td>
</tr>
<tr>
<td>ʔisà-ɪm̥</td>
<td>steal multiple times</td>
</tr>
</tbody>
</table>
No examples have been recorded that illustrate iterative stems which are derived from roots with final o and u.

The vowel of the iterative extension is u when it is added to a verb root with a final labial stop or a final labialized consonant. There are only four examples in the corpus, which represent the labial consonants b and ph, and the labialized consonant xw.

\[
\begin{align*}
dāb–ùmé & \quad \text{joke multiple times} < dābě \quad \text{joke, make fun (of a peer)} \\
dūb–ùmé & \quad \text{hit multiple times} < dūbě \quad \text{hit} \\
tʼàph–ùmé & \quad \text{beat multiple times} < tʼàphé \quad \text{beat}
\end{align*}
\]

The following example illustrates another iterative stem with the vowel u. Here, the verb root contains a final labialized consonant xw. Note that the consonant is no longer labialized in the iterative stem (*sâxwùmé).

\[
\begin{align*}
sâx–ùmé & \quad \text{mow multiple times} < sâxwé \quad \text{mow}
\end{align*}
\]

The iterative stem undergoes segmental and/or tone changes when certain object pronouns are suffixed. First, when the third person object pronoun –é or the third person singular feminine object pronoun –ēsú is suffixed, the initial low tone of the iterative morpheme becomes high.

\[
\begin{align*}
xâdé & > xâd–ùmé \quad \text{scrape out} \\
\text{tsháá}sà & \quad \text{xâd–ùmé–é} \quad \text{pot=3SG scrape-out-IT-3O} \\
& \quad \text{She scraped out a pot.}
\end{align*}
\]

\[
\begin{align*}
tâŋkí & > tâŋ–ùmé \quad \text{chase away} \\
tâŋ–ùmé–ēswà & \quad \text{chase-away-IT=3SG-3} \\
& \quad \text{He chased her away.}
\end{align*}
\]
Second, when non-human plural objects are marked on the verb, tonal and segmental changes occur. The initial low tone of the iterative morpheme becomes high. Moreover, the iterative marker -\textit{imé} merges with the plurality marker -\textit{wá} and the third person object suffix \textit{é} into one morphological complex: -\textit{imé} + -\textit{wá} + -\textit{é} > -\textit{imáá}.

Note that in the morphological complex, the object suffix -\textit{é} is assimilated to the vowel \textit{a} of the plural object marker.

\begin{verbatim}
\textit{!hèngé > !hèng-\textit{imáá} sharpen

\textit{rógó}=à !hèng-\textit{im}-à-à
knife=3 sharpen-IT-PL.1-3O
He sharpened knifes.
\end{verbatim}

Sandawe speakers of Farkwa attribute the morphological complex -\textit{imáá} to the variety of Sandawe spoken in the central and western part of Usandawe (i.e. Kurio/Kwa Mtoro up to Ovada). In Farkwa, a different variant is used that causes no segmental and tone changes to the iterative stem:

\begin{verbatim}
\textit{rógó}=à !hèng-\textit{imé-??éwá}-à
knife=3 sharpen-IT-PL.1-3O
He sharpened knifes.
\end{verbatim}

There are no changes when other object pronouns are suffixed to the iterative stem. The examples below illustrate a second person singular object, and a third person plural human object, respectively. Contrast these to the examples above.

\begin{verbatim}
\textit{tǎŋkí > tǎŋk-\textit{imé} chase away

\textit{tǎŋk-\textit{imé-pá}=à
chase_away-IT-2SG=3
He chased you away.

\textit{tǎŋk-\textit{imé-??éng}=à
chase_away-IT-3PL=3
He chased them away.
\end{verbatim}

Iterative stems basically express multiplicity of action. The event that is described is seen as the sum of several actions.

\footnote{The following historical development is assumed for this complex. The final vowel \textit{é} of the iterative morpheme -\textit{imé} was originally a general singular object marker. Thus, the plural marker and object marker -\textit{wá} -\textit{é} were suffixed to -\textit{imé}, replacing the singular object marker. The sequence -\textit{imwáá} is realized as -\textit{imáá}, because of the phonotactic restriction that labial consonants cannot be labialized.}
Verbs

Gele-SFOC (SV.) come-SG-IT
Gele came repeatedly.

Bed bug-SFOC (SV.) bite-IT-1SG
Bed bugs have bitten me over and over again!

In many iterative stems there is an inherent repetition of the action:

- kòʔ-ímé peg in
- sàxù-mé mow
- tʰîŋkʰ-ímé kick
- tʰîŋg-ímé stab, pierce
- xàd-ímé scrape out

The underived counterparts of these iterative stems are used either to indicate one particular instance of the action (e.g. 'stab once'), or to generalize the event without reference to the multiplicity of action (e.g. '(start) mow(ing)!').

There is a clear difference between the semantics of iterative stems and the semantics of reduplicated stems. Iterative stems express multiple occurrences of an action. Reduplicated stems on the other hand describe prolonged events, which are generally carried out with low intensity. However, the use of the two stem types reveals that there is semantic overlap in certain contexts. The following example illustrates this. The clause describes the busy activities around a train after its arrival: people are getting on and off the train at different places and moments.

- njómosó hisónsó ?àà kékè, hisónsó ?àà ||'ak-ímé
  person.PL other-PL CNJ.PL ascend:RED other-PL CNJ.PL descend–IT
  Some people got on, others got off

The verb ||'akimé 'descend' can be compared to its antonym, the verb kékè 'ascend'. In the case of getting off the train, the event is described by an iterative stem. In order to describe the people that get on, a reduplicated root is used. Except for the direction of the movement, both events are similar in nature: actions of ascending and descending are carried out multiple times by different individuals and at several places. Regardless of this, an iterative stems and a reduplicated stem are used next to each other in this context. It can therefore be concluded that in certain contexts the boundaries between the semantics of iterative stems and reduplicated

---

50 In the Sandawe utterance, the lexical subject does not indicate plurality, nor does the verb indicate participant plurality. In the translation we try to reflect this unspecified mass of bed bugs. However, this requires a plural subject in English.
stems are vague. Especially if plurality of action is combined with plurality of participants, the domains that are covered by the respective stem types overlap.

6.2.3. Factitive stems

Factitive stems are characterized by the factitive morpheme –sé. Two groups of factitive stems are distinguished:

a) derived factitive stems
b) lexical plural action verbs with an obligatory factitive stem marker

The general formal properties of the two groups are the same. For both groups the factitive morpheme –sé has a high tone, while the preceding tones are all low. Syntactically, the verbs in both groups are transitives, with at least an agent subject and a patient object. On the semantic level, there are differences between the two groups. Therefore the groups will be treated separately here.

a) Derived factitive stems

Factitive stems in this group are derived from an intransitive verb. Consider the following examples:

| dzàà–sé | cause to be contiguous | dzáá | be contiguous |
| gwè?-q–sé | hurt (tr.) | gwèʔq | be hurt, suffer |
| göt?’òxq–sé | remember | göt? ’òxq | jump to mind 51 |
| hók’à–sé | warm up | hók’a | be hot |
| khwàà–sé | return (tr.) | khwàà | return, go back |
| fík’y–sé | stick in | fík’y | be stuck |
| nàʔq–sé | inflame, make burn | nàʔq | burn (intr.) |
| ts’aʔq–sé | dip into liquid | ts’aʔq | be dipped into liquid |
| ts’òk’y–sé | scare away (SG stem) | ts’òk’y | jump up (SG stem) |
| tìʔòʔq–sé | make turn, turn (tr.) | tìʔòʔq | turn (intr.), deviate |
| ʔʔaʔq–sé | avoid, block | ʔʔaʔq | be blocked |

The following list illustrates factitive verbs for which there is no underived counterpart. They are considered as group (a) factitive stems.

| hàñ–sé | praise |
| hùʔ’n–sé | taste from a dipped finger |
| khùn–sé | send |

51 The verb root göt’òxq ‘jump to mind’ has been translated as an intransitive verb. However, as we only recorded it out of context, no claims about its syntactic and semantic structure can be made here.
Factitive stems in this group have a special plural verb stem. In order to form the plural factitive verb stem, m- is inserted before the factitive morpheme -sé.

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dzàà-sé</td>
<td>dzàà-m-sé</td>
<td>make touch (PL stem)</td>
</tr>
<tr>
<td>hùlù-sé</td>
<td>hùlù-m-sé</td>
<td>taste from a dipped finger (PL stem)</td>
</tr>
</tbody>
</table>

According to general morphophonological rules, all voiceless (parts of) vowels before m- become voiced. Thus, voiceless vowels become voiced vowels:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hàñ-sé</td>
<td>hàñ-m-sé</td>
<td>praise (PL stem)</td>
</tr>
<tr>
<td>fìkì-sé</td>
<td>fìkì-m-sé</td>
<td>stick in (PL stem)</td>
</tr>
</tbody>
</table>

Similarly, the voiceless release of a glottal stop is realized as a full, voiced vowel before m-:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nà?à-sé</td>
<td>nà?à-m-sé</td>
<td>inflame (PL stem)</td>
</tr>
<tr>
<td>tì’è?ì-sé</td>
<td>tì’è?ì-m-sé</td>
<td>(make) turn (PL stem)</td>
</tr>
</tbody>
</table>

One stem has a suppletive plural stem form:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ts’èkì-sé</td>
<td>tì’n-sé</td>
<td>scare away (SG - PL stem)</td>
</tr>
</tbody>
</table>

The semantics of factitive stems are understood best by comparing the factitive stem to its underived counterpart. In the factitive derivation an agent role is added to the argument structure of the verb. The underived form is an intransitive verb in which a subject (Y) undergoes the event. In the factitive stem, an agent (X) has been added to the event. The agent is realized as the subject of the factitive verb and causes the patient (Y), now object, to undergo the event. This is illustrated schematically below for two derivations of factitive verbs:

<table>
<thead>
<tr>
<th>Stem</th>
<th>Plural Stem</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>hòk’á</td>
<td>hòk’à-sé</td>
<td>X cause Y be hot = X warm up Y</td>
</tr>
<tr>
<td>tìkì</td>
<td>tìkì-sé</td>
<td>X cause Y be stuck = X stick in Y</td>
</tr>
</tbody>
</table>

Note that this is not the case for factitive stems in group b.
Factitive stems are basically causative verbs in which an agent causer has been added to an intransitive verb. The causee (Y) undergoes the event, just as it undergoes it in the underived form. The defining characteristic of the factitive stem is the presence of an agent subject (X) that actively carries out the event. The involvement of the agent subject of factitive verbs is different from that of causative verbs. See section 6.2.4 for a comparison.

The use of the plural factitive stem depends on plurality of the object and plurality of the action. The plural factitive stem is obligatorily used with factitives with non-human third person plural and collective objects. In such cases, the plural factitive stem is followed by the plural object marker and the object suffix:

\[ h\ddot{a}x\ddot{w}\ddot{e} \quad n|\ddot{g}\ddot{k}\ddot{\text{-}}x\ddot{e}\ddot{-}n \quad h\ddot{a}n\ddot{-}m\ddot{-}s\ddot{-}w\ddot{a}\ddot{-}\acute{a}=s\ddot{a} \]

\text{DEM2.COLL} \quad \text{child.PL-COLL-DEF} \quad \text{praise-PL-FACT-PL1-3O=3SG}

She has praised that group of children.

The plural factitive stem may also code human plural objects (for third person: definite human objects) but this is not obligatory. The plural factitive stems rather code plurality of the action than plurality of the object participants. This specific use of the plural factitive stem marker \(-m\) shows some functional resemblance to the iterative marker \(\text{-}\text{mé}\), when it is used as a means of coding plurality of action. See also section 6.2.2 on iterative stems.

\[ b) \text{ Lexical plural action verbs with an obligatory factitive stem marker} \]

The second group of factitive stems contains lexical plural action verbs (or lexical pluractionals), which have an obligatory stem marker \(-\text{ré}\). All tones before the stem marker are low. Verbs in this group can be recognized by the doubling of one or two syllables before the factitive marker. Consider the following examples:

\begin{align*}
\text{didi}n\ddot{-}\text{sé} & \quad \text{prop, support} \\
\text{khār}n\ddot{-}\text{khār}\ddot{-}\text{sé} & \quad \text{roll} \\
\text{khùkhù}n\ddot{-}\text{sé} & \quad \text{beat out, shake out} \\
\text{phèphè}\ddot{-}\text{ré}\ddot{-}\text{sé} & \quad \text{winnow} \\
\text{ts}n\ddot{-}\text{xùs}n\ddot{-}\text{sé} & \quad \text{give a light beating} \\
\text{n|dòd|dò}\ddot{-}\text{sé} & \quad \text{strip off (grains from maize cob)}
\end{align*}

All examples of lexical pluractionals with an obligatory factitive stem marker show the same pattern of word formation. This pattern can be summarized in two templates. Subscript letters indicate doubling.

\begin{align*}
\text{[CV],[CV]}_{n} & \quad \text{-}n\ddot{-}\text{sé} \\
\text{[CVCV],[CVCV]}_{n} & \quad \text{-sé}
\end{align*}
Note that the factitive stem marker is obligatory: neither CVCV nor CVCVCVCV can function as an independent verb root.

The source form for the doubling can be defined phonologically (one or two syllables), but this form does not function as an independent root itself. In other words, source forms (e.g. ככ, הנה) do not occur in isolation. There are a few exceptions, e.g. compare צא צא צא ‘soak’ to the noun root צא ‘water’; similarly, Van de Kimmenade (1954) notes the verb root חורון ‘se trouer’, to be compared to the factitive stem חורון חורון ‘make holes on’.

The source form for doubling is either a monosyllabic or a disyllabic string. Therefore the resulting number of syllables before the factitive marker is two or four. First, factitive stems are illustrated that have four syllables before the stem marker:

- לוב לוב לוב se shake repeatedly
- מָא מָא מָא se crush
- ודָת וּדוֹת וּדוֹת se push around

If the number of syllables before the stem marker is two, a glottal stop is inserted before the morpheme –סֶ.

- קָחֶק קָחֶק קָחֶק se gather
- מָמָא מָמָא מָמָא se soothe
- נִלְpcion נִלְpcion נִלְpcion se beat repeatedly

The following verb, a rare example of a monosyllabic source form which is a root itself (צא ‘water’), shows that the glottal stop is not part of the source form, as one might assume. The glottal stop is therefore best considered as inserted between the doubled form and the factitive morpheme.

- צא צא צא se soak
- צא צא צא water

The semantics of the verb in group (b) center around pluractionality. The lexical pluractionals describe events that inherently consist of multiple similar sub-events. For example, winnowing ( mote) involves multiple actions of throwing up the grains, in order to remove the chaff. Similarly, giving a light beating (ץというもの) is not a single slap; it usually involves multiple beatings. Stripping off grains (ץというもの) from a cob is done in multiple sub-actions. All verbs are transitives in which the agent subject carries out the action on a patient object. Note that the verbs in group b have an obligatory factitive marker and therefore their semantic properties cannot be compared to an underived form.
Contrary to the factitive stems in group (a), there is no special plural stem for the factitive verbs in group (b). Thus, human plural objects are regularly marked by a plural object suffix (e.g. –πυς, –πης).

Similarly, non-human plural objects are only marked by suffixing –ώα–α to the stem. Alternatively, a complex plural form can be used, which consists of the iterative morpheme plus the plural object marker: –μίμα–α (see also iterative stems).

\[
\text{māmāʔq–sē̂–sūn–sā}, \quad \text{māmāʔq–sē̂–tīn–sā}
\]
\[
\text{soothe-FACT-1PL=3FSG} \quad \text{soothe-FACT-3PL=3FSG}
\]
\[
\text{She soothened us,} \quad \text{she soothened them.}
\]

\[
\text{māʔlāmāʔ–sē–wā–ā=sā}
\]
\[
\text{crush-FACT-PL1-3O=3FSG}
\]
\[
\text{She crushed them.}
\]

\[
\text{māʔlāmāʔ–s–ūm–ā–ā=sā}
\]
\[
\text{crush-FACT-IT-PL1-3O=3FSG}
\]
\[
\text{She crushed them.}
\]

### 6.2.4. Causative stems

Causative stems are characterized by a causative extension. Most causative stems are derived forms that have a corresponding form without the causative marker. There are two causative extensions:

- causative 1: –κʉ
- causative 2: –sūkʉ

The causative 2 morpheme is the most productive extension. It may be used to derive causative stems from both verb roots and extended stems. Next to the formal differences between the two causative stem types a comparison at the end of this section shows that they are also semantically different.

#### Causative 1 –κʉ

The causative extension –κʉ is not a productive derivational extension. Causative stems with the extension –κʉ are infrequent when compared to the causative stem marker –sūkʉ.

The following list shows causative 1 stems. The underived verb root is given in the column on the right. Disyllabic roots that can undergo clipping, have the clipped form before the causative marker (see also section 6.3).

<table>
<thead>
<tr>
<th>verb root</th>
<th>meaning</th>
<th>clipped form</th>
<th>causative 1 form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ké–kʉ</td>
<td>let ascend, load up</td>
<td>&lt; ké</td>
<td>ascend</td>
</tr>
<tr>
<td>māntshā–kʉ</td>
<td>feed</td>
<td>&lt; māntshā</td>
<td>eat</td>
</tr>
</tbody>
</table>
A few verbs in Sandawe contain a final string ƙù. This string cannot synchronically be identified as a causative extension, because no verb root without ƙù exists. Verbs of this kind are probably lexicalized causatives.

The usual voiceless realization of the final vowel ƙ of the causative extension changes to labialization of k when a vowel follows. The vowel is deleted when the approximant w follows. In both environments, the low tone of the causative extension is preserved and has a lowering effect on any following high tones.

\[
\text{kè–ƙù–é–si} \quad > \quad [\text{kè’kù’ési}]
\]

I loaded it up

\[
\text{kè–ƙù–wá–á–si} \quad > \quad [\text{kè’kù’áásì}]
\]

I loaded them up

Note that -kwé (causative extension plus third person object suffix ƙ) is homophonous with the verbal benefactive marker plus the third person object suffix, see 6.5.1.

Causative stems may be derived from intransitive and transitive verb roots. The causative derivation adds an extra argument to the argument structure of the verb. Thus, intransitive verbs become transitive with the causative extension, and transitive verbs become ditransitive. The agent subject is the causer of the event that is expressed by the causative verb. The causee is the primary object of the event. It undergoes the causation of the event. In the following example, the agent subject ‘she’ causes the object, njóó ‘child’, to lie down.
Ditransitive causatives have a secondary object. The primary object of a ditransitive causative is the causee of the event. The secondary object is the undergoer of the event itself. In the following example, the primary object ɲɲ¹dó 'child' is caused to eat nówá ‘mash’, the secondary object of the clause.

\[ \text{ɲɲ¹dó-ŋ=sà} \quad ɲɲ¹lwà-é \]
\[ \text{child-DEF=3SG lie_down-CAUS1-3o} \]
She has laid the child to rest.

Secondary objects of causatives may be omitted, but primary objects are obligatory. The following example shows a grammatical utterance of a ditransitive causative, in which the secondary object (the thing eaten) has been omitted.

\[ \text{ɲɲ¹dó=sì} \quad \text{nówá=sì} \quad Ɂmántshà-ʃú} \]
\[ \text{child=1SG mash=1SG} \quad \text{SV.eat-CAUS1} \]
I feed the child mash.

If the secondary object is inserted, but the primary object (the eater) is omitted, the utterance becomes unacceptable, e.g.:

* \[ \text{nówá=sì} \quad Ɂmántshà-ʃú} \]
\[ \text{mash=1SG} \quad \text{SV.eat-CAUS1} \]
* I feed mash

The subject of ʃú-causative stems is actively involved in the event. The (primary) object is not. Thus, the agent subject carries out an action on the patient object, rather than causing the object to actively carry out an action. Translations should reflect the active involvement of the subject in the event.

\[ \text{mántshákú} \quad \text{feed (rather than: cause to eat)} \]
\[ ɲɲ¹iŋkú} \quad \text{lay down, lay to rest (rather than: cause to lie down)} \]

A final note concerns the verb ɲɲ¹iŋkú} ‘lay down’. While the underived singular subject form ɲɲ¹ińe has a suppletive plural subject stem Ɂásí, there is no suppletive form for plural objects of the causative stem (* Ɂásíkú}. Rather, the plural object marker -wá is used, which results in ɲɲ¹iŋkwá. Compare this to the suppletive stems ts’òk’ / tòt’硠 ‘jump up and leave hastily (SG / PL subject stem)’, which have corresponding suppletive forms for the derived factitive stems: ts’òk’-sé / tòt’lín-sé ‘scare away (SG / PL object stem)’. 
Causative 2 –súkù

The causative morpheme –súkù is a productive extension in the formation of causative stems. Causative stems can be derived from verb roots and stems. The following examples illustrate causative verbs that are derived from both intransitive and transitive verb roots.

- ɲ!bé–súkù: make laugh < ɲ!bé laugh
- k’áŋ!lá–súkù: cause to / make disappear < k’áŋ!lá disappear
- mèné–súkù: cause to love < mèné love
- Ɂ’ó–súkù: cause to rain < Ɂ’ó rain

The following examples show derived verb stems that serve as a basis for the causative derivation. They contain a causative extension after the middle marker and after the reciprocal marker, respectively:

- ḋákí–ts’–súkù: cause to sit down < ḋákí–ts’ sit down
- Ɂ’ó–kí–súkù: cause to meet each other < Ɂ’ó–kí meet each other

Two types of exceptional occurrences of the causative 2 extension are noteworthy. In both cases, the extension –súkù is suffixed to a noun root. First, –súkù occurs on noun roots that denote ingredients. The resulting form is a transitive verb that expresses that the incorporated noun root is added to something in preparation. The object in preparation is the object of the verb. It is marked as a verbal object suffix. Examples are rare.

- !hùmè–súk’–é–sjh < !hùmè ‘flour’
  flour-CAUS2-3o=1SG
  I add flour
- sukari–súk’kw–é–sjh < sukari ‘sugar’
  sugar-CAUS2-3o=1SG
  I add sugar

Second, –súkù is used with noun roots that denote periods of time. The resulting verb form expresses that its subject finds itself in a particular period of time. This use of the causative morpheme needs further investigation, because there is no causative relation between the subject and the time of the day.

- ɲlè–súkù < ɲlè ‘day(time)’
  daytime-CAUS
  go on till next morning, continue through night, make daytime
You have come in the late afternoon! (you caused it to be late afternoon?) [uttered when the addressee arrived in the late afternoon to help doing work with the community]

The morpheme -sùkù undergoes the same morphophonological changes as the causative marker -kù, but there is more variation. When a vowel or ŋ follows, -sùkù becomes sùkwè.

I made him pay bride price.

I made them sing.

There is variation in the realization of the labialized consonant when the causative morpheme is combined with the third person singular object suffixes -é and -ésù (feminine). The consonant is sometimes clearly labialized, and sometimes no labialization is heard at all. The following variants are both acceptable:

I made him pay bride price

Another instance of variation is found for the full paradigm of causative verbs that carry an object suffix. As the following paradigm shows, à may be inserted between the causative morpheme and the object suffix. The table shows all the variants. The à-forms are shown in the middle column, the other variants are shown on the right. Note that the causative verbs with third person singular objects have three variants in total, an à-form, one form with a labialized causative marker, and one with a non-labialized causative marker.
The a-forms show two homophonic verb forms. \( \eta l\epsilon \epsilon \eta \epsilon ^* \) may refer to both a third person singular object and to a non-human and/or non-specific plural object form.\(^54\)

The insertion of à cannot be explained satisfactorily. The presence of the vowel in the full paradigm points towards a kind of causative stem building device. An argument against this explanation is that à is never present when the causative extension is the final element of the verb. In other words, \( \eta l\epsilon \epsilon \eta \epsilon ^* \) is ungrammatical as an isolated verb form. The vowel is considered as an optional suffix support.

Causative stems have an additional argument as compared to their non-causative counterparts. The subject of a causative verb causes the event to take place. The primary object is the causee of the event. If there is a secondary object, it is the undergoer of the event.

Secondary objects are only rarely marked by a verbal object pronoun. Usually, the secondary object is either implied, or marked by a noun phrase or independent pronoun. Ditransitive verbs with two object pronouns are exceptions (see for example \( k\hbox{w}w\hbox{a} \, s\hbox{e} \, s\hbox{u} \, k \, k \) ‘cause him to return it’ below). Constructed ditransitive causatives with a first or second person secondary object pronoun were rejected by speakers, e.g.:

\(^{53}\) The realization of the a-form is the same as the variant in the right column. The expected realization \( \eta l\epsilon \epsilon \eta \epsilon ^* k\hbox{w}w\hbox{a} \) does not occur.

\(^{54}\) There may be a slight difference for the two forms in the duration of the vowel \( \hbox{a} \) (the singular object form may well be short), but we have not been able to hear a difference between the two.
He made her love me

The causer (subject) of the event in sükä-causatives has a certain distance to the event. It causes the event to happen, but there is no direct, active involvement in the action itself.

She made them wash themselves (e.g. told them to do so).

The exact semantic roles of the participants are understood best when sükä-causatives are compared to other derived verbs that have an additional agent. First, a sükä-causative is compared to a factitive stem. The underived verb root is shown in the following example. It only has a subject argument in this clause.

He returned

The derived causative stem has an additional argument, which is syntactically the subject. The agent subject of the intransitive verb khwāa has become the object of the causative stem khwāasükä. The subject is not actively involved in the returning of the object, it is just the causer of the event. The object on the other hand is the actual agent of the action of returning.

I made him return

This can now be compared to the factitive stem, in which the object has no control over the event: it is only the undergoer of the action of returning. The specific context of this clause determines that the object will not be able to carry out the action itself.55

You get him back home!

When the factitive and causative extensions are combined, a ditransitive verb results. Again, the object of the factitive has no control over the event, but the object

55 See Text “The Hospital” in the appendix: The object referred to is ill and has swollen legs. He should be returned home if treatment fails.
of the causative does. The subject is only the causer of the event of returning, the object of the causative carries out the action of returning.

khwâː-še-é-sûk-ê-sî
return-FACT-3O-CAUS2-3O=1SG
I made him return it.

Concluding from the first comparison, the object of a sûk̂-causative has more active involvement in the event. It is the undergoer of the causation, but it actually carries out the action.

The second comparison focuses on the semantic role of the subject. The examples below show both sûk̂ and kû as causative stem markers on the root wâl-á ‘vomit’.

wâl-á-sûk̂-ţîng-å
vomit-CAUS2-3PL=3
He caused them to vomit

wâl-á-kû-ţîng-å
vomit-CAUS1-3PL=3
He made them vomit (in order to cure them)

The sûk̂-causative shows that the subject is the causer of the event: it causes the object to vomit. A similar account can be given for the kû-causative, but its use suggests that the subject is involved more actively in the event: it makes the object vomit as part of a treatment, and does it on purpose. Thus, the kû-causative has a more specialized meaning, and the subject is more closely involved in the action than the subject of a sûk̂-causative.

Concluding from both comparisons, the differences between factitives and the two causatives can all be described in terms of the degree of active involvement of the arguments in the event. Factitive verbs have an actively involved agent subject, and a genuine patient object. sûk̂-causatives have a subject that is not actively involved, it is just the causer of the event. The (primary) object is therefore the one actively involved in the action. Finally, kû-causatives have a subject that is actively involved. The degree of involvement of the object is low.

6.2.5. Middle stems

Sandawe middle-marked verbs express both reflexive and agentless events. A strict formal division between the two semantic types cannot be made for Sandawe, even though there are two different middle extensions. Therefore the present section discusses the two together, showing where they can be distinguished and where problems arise.
Middle verbs are characterized by a form of the extension –ts’i. There are two middle extensions: one with a voiced vowel, –ts’i (middle 1; MID1), the other with a voiceless vowel, –ts’i (middle 2; MID2). Middle verbs with a voiced final vowel have a high tone. The tone of middle verbs with a final voiceless vowel is low. Middle verbs with a final voiceless vowel obey to the general morphophonological rules concerning the voicing of voiceless vowels. Thus, voiceless vowels remain voiceless before a word boundary or pause:

\[ \text{théé–áá} \quad \text{[thééyáá} \quad \text{[hááts’]} \]

\[ \text{tree-SFOC} \quad \text{sv.shake-MID2} \]

The tree shakes

When followed by an affix or clitic, voiceless vowels are voiced:

\[ \text{théé} \quad \text{[háá–ts’]–á} \quad \text{[théé} \quad \text{[hááts’]yáá} \quad \text{or: [théé} \quad \text{[hááts’]áá] } \]

\[ \text{tree} \quad \text{shake-MID2=3} \]

The tree shakes

The distribution of the middle 1 and middle 2 extensions cannot be explained by morphophonology, but semantics can give more insight. The following examples show that the distribution of the two middle extensions is not phonologically conditioned:

Table 25: Distribution of middle extensions (voiced and voiceless final vowel)

<table>
<thead>
<tr>
<th>Middle 1: voiced final vowel</th>
<th>Middle 2: voiceless final vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>kòònàwàts’i</td>
<td>be damaged</td>
</tr>
<tr>
<td>mákàts’i</td>
<td>be happy</td>
</tr>
<tr>
<td>tìnts’i</td>
<td>be built</td>
</tr>
<tr>
<td>?áàrèts’i</td>
<td>believe</td>
</tr>
<tr>
<td>nòbòts’i</td>
<td>be opened</td>
</tr>
</tbody>
</table>

There are some examples of verb roots and extended stems that can take both middle extensions. This is illustrated in table 26:

Table 26: Reflexive/middle stems containing middle 1 and middle 2 extensions

<table>
<thead>
<tr>
<th>Middle 1: voiced final vowel</th>
<th>Middle 2: voiceless final vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>dòbùmèts’i</td>
<td>hit oneself</td>
</tr>
<tr>
<td>hàábòts’i</td>
<td>be praised</td>
</tr>
<tr>
<td>tì’òngèts’i</td>
<td>burn oneself</td>
</tr>
</tbody>
</table>

\[ ^{56} \text{Note that only one translation equivalent is given for each verb. More information on the semantics of reflexive and middle verbs can be found below.} \]
The pairs display a semantic distinction which is more or less predictable: verbs with the middle 1 extension always express reflexive events, while verbs with the middle 2 extension express agentless events, or reflexive events in which the subject has no control over the action.

A similar semantic distinction, but less clear, is found for middle verbs that have only one form of the middle extension (as in table 25). Reflexive events are always expressed by verbs with the middle 1 extension. On the other hand, agentless events, especially when having a passive reading, can be marked by means of the middle 1 or the middle 2 extension. Thus, a clear opposition between the two middle extensions is not found in this semantic field. For more information, see the discussion on middle semantics below.

Morphologically, middle verb stems can be categorized in two groups:

a) Derived middle verbs
b) Deponent middle verbs, or media tanta

a) Derived middle verbs are those verbs for which a counterpart without middle marking exists. Forms from which middle stems can be derived are verb roots and extended stems. In the following examples, the forms without the middle extension in the right column are verb roots.

| Köônáwà–ts’ì | be damaged | < | Köônáwà | damage |
| Ŝw̄yá–ts’ì | be hung | < | Ŝw̄yá | hang (tr.) |
| Ḵ’!=ts’ì | be seen, be visible | < | Ḵ’= | see |
| Ḵ=k–ts’ì | shake (intr.) | < | Ḵ=k | shake (tr.) |

Some middle stems are derived by suffixing the middle extension to a modified form of the root. Modifications to the verb root are clipping and /a/-vowel alternation.57 The following examples illustrate clipping of a disyllabic verb root with a final string më. clipping of a final string në, and /a/-vowel alternation, respectively.

| Tàn–ts’ì | be torn | < | Tàn– | támë | tear |
| Tṭín–ts’ì | be built | < | Tṭín– | tṭïné | build |
| Ts’á–ts’ì | be drunk, drinkable | < | Ts’á– | Ts’éé | drink |

The middle stem Ñ[wêén–ts’ì] ‘break’ has an irregular form. The insertion of n cannot be attributed to a nasal element in the corresponding verb root.

| Ñ[wêén–ts’ì] | break (intr.) | < | Ñ[wêë] | break (tr.) |

57 The same modifications occur when the plural marker –wà is suffixed, and when object pronouns are suffixed. For more information, see sections 6.3 and 6.4.1.
The middle stem máná-ts'i ‘be known’ has a high tone pattern, while the corresponding verb root has all low tones. This is the only example displaying a tonal change.

máná-ts'i  
be known  
<  
mànà  
know

The following middle stems have a corresponding verb root, but the middle extension is added to a form which consists of the root plus the plural object marker. The middle extension of these verbs has a voiced vowel (MID1). The function of the plural morpheme in these middle stems is unknown (see also section 6.4.1).

bô–?òwá–ts'i  
say to oneself  
<  
bô  
say

wá||á–wá–ts'i  
vomit on oneself  
<  
wá||á  
vomit

lân–?òwá–ts'i  
see oneself  
<  
lân  
see

The derivation of middle stems from extended stems mainly concerns iterative stems.

dùbù–mé–ts'i  
hit oneself  
multiple times  
<  
dùb–ùmé  
dùbé  
hit with fist

dùbù–mé–ts'j  
be hit  
multiple times  
<  
dùb–ùmé  
dùbé  
hit with fist

hàmà–mé–ts'j  
be insulted  
multiple times  
<  
hàmà–mé  
hàmà  
insult

The following example shows that middle stems may also be derived from factitive stems.56

hàh–sé–ts'i  
praise o.s., be praised  
<  
hàh'sé  
praise

hàh–sé–ts'j  
boast  
<  
hàh'sé  
praise

The verb ?áárd–ts'i ‘believe’ is exceptional as the underived counterpart of the middle stem is an interjection.

?áárd–ts'i  
<  
?áárd  
right-MID1  
right  
Believe, trust  
All right, o.k.

---

56 These are the only examples in my corpus. Van de Kimmenade (1954) mentions a few others: em'séts'i ‘être acceptable’ < em’sé ‘agréer’; kóngosé’ts'i ‘s’élever’ < kóngosé ‘élever’; ||'aséts'i ‘s’abstenir’ < ||’asé ‘empêcher’. He has one example where a middle stem is apparently derived from a factitive stem which is itself derived from a middle verb: tits’iséts'i ‘se courber’ < tits’isé ‘courber, plier’ < tits’i ‘être flexible’.
b) Deponent middle verbs, or *media tanta* are middle verbs that do not have a verbal counterpart without the middle marker (cf. Kemmer 1993; Mous 2004). The group of *media tanta* is small. The following list contains all examples from the corpus.

- **bákitsʼi** sit (SG stem)
- **bálétsʼi** put on airs
- **nûtsʼi** go out, smother
- **kʼàrētsʼi** decorate oneself
- **tûntsʼi** be blunt
- **ûàâtsʼi** come out suddenly (PL stem)

All middle verbs are intransitives. A middle stem can never have a (lexical or pronominal) direct object. In order to add an extra semantic role to the verb, adjuncts may occur in the form of postpositional phrases and adverbial phrases. In the following example an extra semantic role is introduced by the directional postposition -nà. The clause expresses how the lower half of a beehive has been made even with the upper half during construction.

```
phà hêwê-nà lâmâ-tsʼi
CNJ.3 he-DIR be_appropriate-MID1
```

And then it is even with it.

The middle verb ʔáárētsʼi ‘believe, trust’ requires the object of trust. This semantic role is expressed as a locative postpositional phrase, marked by -tsʼi, e.g.

```
hûpû-tsʼi=sj ʔáärë-tsaʼi
you-LOC=1SG believe-MID1
I believe/trust you.
```

An adverbial adjunct is illustrated below.

```
xâ=sj khëfë-tsaʼi
bad=1SG hear-MID1
I feel miserable
```

Middle constructions occasionally have an emphatic reflexive marker: tsʼéx-‘oneself’.\(^{59}\) The marker is coreferential with the subject and receives a gender marker and the subject focus marker -aa. The marker can have animate as well as inanimate referents.

---

\(^{59}\) The form is probably related to the numeral tsʼéxʼi ‘one’.
The mango has come off by itself (i.e. has fallen from the tree)

The following is a description of the semantics of Sandawe middle-marked verbs, which is inspired by Kemmer (1993) and Mous (2004). The description covers the semantics of verbs that are morphologically marked as middle stems by the extensions \(-\text{ts}'\) and \(-\text{ts}\). It does not predict that all events which fit this description are expressed by middle-marked verbs.

The semantics of Sandawe middle verbs fall into two main categories:

1) Reflexive events (middle 1)
2) Agentless events (middle 1 and middle 2)

The categories are treated separately. Note however that a single middle-marked verb can have both meanings, e.g. \(\text{kod}^\text{onawats}'\) ‘1. damage oneself; 2. be damaged’. A further discussion of the formal and semantic properties of middle stems follows after the description.

1) Reflexive events are events in which the agent is at the same time the patient of the action. Middle-marked verbs in this category are derived from transitive verbs in which an agent subject carries out an action on a patient object. In the middle verb the agent subject carries out the action on itself. The following examples all express physical activities, because they demonstrate the reflexivity of the event most clearly. The extension is the middle marker 1: \(-\text{ts}'\).

\[
\begin{array}{lll}
\text{dubets}' & \text{hit oneself with fist} & < & \text{dub} & \text{hit with fist} \\
\text{hi}^\text{i}^\text{awats}' & \text{tie oneself} & < & \text{hi}^\text{i} & \text{tie} \\
\text{khaats}' & \text{hit oneself} & < & \text{khaa} & \text{hit} \\
\text{tla}^\text{i}^\text{axets}' & \text{cut oneself} & < & \text{tla}^\text{i}^\text{axe} & \text{cut} \\
\text{ntlokhots}' & \text{wash oneself} & < & \text{ntlokh} & \text{wash}
\end{array}
\]

In middle stems with both the middle 1 and middle 2 extension, the middle 1 stem expresses a reflexive event. The middle 2 stem, which is marked by \(-\text{ts}\), is used to express an agentless event (e.g. with a passive reading), or a reflexive event in which the subject carries out an action on itself, but without control, or unintentionally.

\[
\begin{array}{lllll}
\text{tla}^\text{i}^\text{phumets}' & \text{beat oneself} & \text{vs.} & \text{tla}^\text{i}^\text{phumets}' & \text{be beaten} \\
\text{tla}^\text{i}^\text{axets}' & \text{cut oneself} & \text{vs.} & \text{tla}^\text{i}^\text{axets}' & \text{cut o.s. unintentionally, be cut} \\
\text{nts}^\text{meets}' & \text{reprimand o.s.,} & \text{vs.} & \text{nts}^\text{meets}' & \text{be reprimanded}
\end{array}
\]
Middle 2 stems without a corresponding middle 1 stem never express reflexive events.

2) In middle-marked verbs that express agentless events the sole (subject) argument of these middles is the undergoer of the event and has no control. Although one may imagine an agent for several middle verbs in this category, there is no agent in the linguistic presentation of the situation. The absence of a controlling agent in clauses with a middle verb is demonstrated by the fact that it is not possible to include an agent, for example by a postpositional phrase.

Within the category of agentless events, a sub-division of the semantics of middle verbs can be made. The groups represent different aspects, or readings, of the core meaning (agentless events). Middle verbs often have more than one reading, depending on the context. The main readings of agentless middles are:

- Passive events (middle 1 and middle 2)
- Spontaneous events (middle 2 only)
- Facilitative events (middle 1 only)

The passive reading is well represented in the class of Sandawe middle verbs, both with middle 1 and middle 2 extensions. The subjects of these middles are patients of the action. Although an agent might very well be imagined for passive middles, it cannot be expressed. Passive middles generally have an underived active counterpart, in which the subject is the agent of the action.

The following list illustrates middle verbs describing spontaneous events. The middle extension for all verbs in this reading is -ts’ (MID2).

The examples show that there are no clear-cut boundaries between different readings of agentless middles. Spontaneous events naturally have no agent, but even here a causer could be imagined (e.g. the wind, or the absence of firewood in case of nûts’ ‘go out’).

---

60 Note that Sandawe does not have a genuine passive derivation.
The facilitative reading expresses the ability of the patient subject to undergo the event. A controlling agent is excluded in this reading. The middle extension is =ts' (MID1) for all examples, except for djomots’i ‘be buyable’ (MID2).

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dāāts’i</td>
<td>be possible</td>
<td>&lt; dāā</td>
<td>be able</td>
</tr>
<tr>
<td>māntshāts’i</td>
<td>be edible</td>
<td>&lt; māntshā</td>
<td>eat</td>
</tr>
<tr>
<td>lānts’i</td>
<td>be visible</td>
<td>&lt; lāŋ</td>
<td>see</td>
</tr>
<tr>
<td>l’ōdōts’i</td>
<td>be available</td>
<td>&lt; l’ōdō</td>
<td>get, meet</td>
</tr>
<tr>
<td>ŋūnts’i</td>
<td>be washable</td>
<td>&lt; ŋūnē</td>
<td>wash</td>
</tr>
</tbody>
</table>

Middle verbs with a facilitative reading often occur in combination with a negation marker. In such a construction the subject pronoun that codes the patient subject belongs to the non-realis series. The negation marker is =1(2/#. The following example illustrates this.

```
be available
```

This garment is very dirty, it cannot be washed (i.e. is not washable, cannot be cleaned).

A few meanings of middle verbs cannot be grouped according to the three main readings of agentless middle verbs. The semantics of these verbs are within the range of the semantics of the middle voice that have been postulated in Kemmer’s typology (1993). However, the domains are not postulated as semantic sub-groups for Sandawe, because the number of examples for each domain is too small. Middle-marking in these domains is the exception rather than the rule.

The following three middle 1 verbs express emotion events.  

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
<th>Example</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>khē?éts’i</td>
<td>feel</td>
<td>&lt; khē?é</td>
<td>hear</td>
</tr>
<tr>
<td>mákāts’i</td>
<td>be happy</td>
<td>&lt; mákā</td>
<td>make happy</td>
</tr>
<tr>
<td>?āārōts’i</td>
<td>believe, trust</td>
<td>&lt; ?āārō</td>
<td>right</td>
</tr>
</tbody>
</table>

The verb khē?éts’i ‘feel’ is a neutral verb of emotion. In interrogatives, it questions the state of the addressee with the question word hiki ‘how?’. In affirmative clauses, the middle verb has to be accompanied by an evaluative adverb.

```
How do you feel? I feel miserable / good.
```

Cf. verbs of emotion without middle morphology: mbēmā ‘love, like’; k’1h’ē ‘be angry’; ŋ[ō] ‘fear’.

---

61 Cf. verbs of emotion without middle morphology: mbēmā ‘love, like’; k’1h’ē ‘be angry’; ŋ[ō] ‘fear’.
The middle verb mákâts’i describes the state of being happy. Note that the event is static: middle verbs with an non-realis subject pronoun express that the subject(s) will be happy, rather than ‘be made happy’, which one might assume when reading the root ‘make happy’ plus the middle extension. Similarly, a reflexive reading (‘make oneself happy’) is excluded for this verb.

mákâ–ts’â–sî
make_happy-MID1-1SG:NR
I will be happy (*I will be made happy, *I will make myself happy)

Finally ?áârëts’i ‘believe, have trust in’ can be seen as a verb of emotion (cf. Kemmer 1993:269). As mentioned before, this verb requires the object of trust, which is expressed by an adjunct. The referent of this phrase may be animate or inanimate.

hâpû–ts’â=ô’
?áârë–ts’î
you-LOC=1SG right-MID1
I believe you, I trust in you

Alternatively, the adjunct may consist of an adverb ?îxî ‘thus’, which can be further specified by a complement clause.

sândâwé ?îx–âʔâ’
Sandawe thus=3PL right-MID1 that
The Sandawe thus believe, that …

Further there are two middle 2 verbs in Sandawe that express a spatial relation between the subject and its surroundings.

hâkîts’i
sit (SG stem)
||áâts’i
come out suddenly (PL stem)

hâkîts’i ‘sit’ is a static verb, which expresses that the (singular) subject is located in a sitting position. ||áâts’i describes that (plural) subjects suddenly come out from inside. Both examples might represent semantic domains of the middle voice, e.g. positionals and translational motion (Kemmer 1993:269). However, each verb would be the only example in its domain. More importantly, both verbs are part of a suppletive singular/plural stem pair, in which the counterpart does not have a middle
Reflexive events and agentless events constitute the core semantics of middle-marked verbs in Sandawe. The following examples illustrate the use of middle verbs in idiomatic expressions. The semantics of middle verbs in these expressions can be considered extensions of the core meanings.

hāpū-’āny-nà hōts-àà |ān-ts’i ʔūdē
you–up-DIR what?–SFOC see–MID1 yesterday
What happened to you yesterday? (lit. what was seen/visible upon you yesterday?)

sākà-àà hī’á–ts’i
chest–SFOC tie–MID1
Have asthma, have difficulty breathing (lit. the chest is tied)

giṭi’è–nə ŋəs–ts’=gā=ā
garment–DEF grab–MID2=CONF=3
The garment is damaged by fire (lit. the garment has been grabbed)

ʔiʔx=q ʔbè–ts’i
thus=1SG put:SG–MID1
I have decided in this way (lit. ?I put myself thus, I have been put thus)

The semantic categorization of middle-marked verbs in two main groups (reflexive events and agentless events) and the two forms of the middle extension lead to two analytical questions:

- Is there a correspondence between the two semantic categories and the two forms of the middle extension, −ts’i and −ts’?  
- Can the middle extension be analyzed as a reflexive object pronoun?

Concerning the first question, there is clearly no one-to-one relation between the two semantic categories and the two forms of the middle marker. The distribution of the two extensions cannot be explained entirely, e.g.:

|ānts’i  be seen, be visible vs. ḏəm̱oṭs’i  be bought, be buyable

Intentional, controlled reflexive events are always marked by −ts’i-middles. The examples which display the middle 1 extension and the middle 2 extension on the same root or stem show this distinction most clearly:

---

62 More insight into historical developments in Sandawe might even reveal that hākīts’i is not a middle-marked verb at all: cf. the middle morpheme −ts’ to the locative postposition −ts’.
Table 27: The semantics of ts'-marked middles vs. ts'-marked middles

<table>
<thead>
<tr>
<th>ts'-middles (MID1)</th>
<th>ts'-middles (MID2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dōbūmēts'ī</td>
<td>hit oneself</td>
</tr>
<tr>
<td>hāḥṣēts'ī</td>
<td>praise oneself, be praised</td>
</tr>
<tr>
<td>swāts'ī</td>
<td>be stripped, be strippable (rope)</td>
</tr>
<tr>
<td>tī'aphūmēts'ī</td>
<td>beat oneself</td>
</tr>
<tr>
<td>tī'āxēts'ī</td>
<td>cut oneself</td>
</tr>
<tr>
<td>tī'ōnqēts'ī</td>
<td>burn oneself</td>
</tr>
<tr>
<td>xāts'ūmēts'ī</td>
<td>reprimand oneself, regret</td>
</tr>
<tr>
<td></td>
<td>be hit</td>
</tr>
<tr>
<td></td>
<td>hāḥṣēts'ī</td>
</tr>
<tr>
<td></td>
<td>swāts'ī</td>
</tr>
<tr>
<td></td>
<td>tī'aphūmēts'ī</td>
</tr>
<tr>
<td></td>
<td>tī'āxēts'ī</td>
</tr>
<tr>
<td></td>
<td>tī'ōnqēts'ī</td>
</tr>
<tr>
<td></td>
<td>xāts'ūmēts'ī</td>
</tr>
</tbody>
</table>

The –ts'-marked middle verbs generally signal that the subject has control and carries out the action on itself; subjects of –ts'-marked middles on the other hand do not have control over the event. The middle verb swāts'ī ‘be stripped, be strippable’ is an exception: it carries the middle 1 morpheme, but there is no controlling subject, nor a reflexive event. It remains to be explained which verbs can have both forms of the middle extension.

The semantic distinction in the above-mentioned pairs partially holds for the middle-marked verbs with only one middle extension. Again intentional, controlled reflexive events are always marked by –ts'-middles. There are no examples of ts'-middles that express reflexive events. However, the middle extension –ts' (middle 1) cannot be attributed solely to reflexives. First, there are middle 1 verbs that do not have a reflexive meaning. Facilitative middles (such as dāats'ī ‘be possible’) can be included as a group here, but there are others too:

| dāats'ī | be possible |
| hābāts'ī | be born |
| mūkāts'ī | be happy |
| tī'īnts'ī | be built |
| tā'ārēts'ī | believe, trust |
| hē'lōt'sī | be opened (door) |

Second, there are middle 1 verbs that can express both reflexive and agentless events.

| kōdānwāts'ī | damage oneself, be damaged |
| khāats'ī | hit oneself, be hit |
The following example shows how the two semantic categories can be expressed by the same middle-marked verb.

\[
ts\text{‘}ëxè–àà \quad kôônàwà–ts\text{‘}i
\]
oneself-SFOC damage-MID1

1. He has damaged himself; 2. It is damaged (all by itself)

The meaning of this clause depends on the referent. A human referent leads to a reflexive interpretation. For an inanimate referent, the emphatic reflexive marker stresses that there is no agent in the linguistic reality. Depending on the animacy of the referent, the subject can have more or less control over the event. The higher the animacy of the referent, the more control a subject can have. Consequently, the middle-marked verb will receive a reflexive interpretation. As inanimate referents generally have less control a genuine reflexive interpretation is odd. For these referents the interpretation of a middle verbs as an agentless event is more appropriate.

Concluding, although there is no one-to-one relation between the two middle morphemes and the two main semantic categories, there is a clear tendency to mark reflexive events by the middle 1 extension, \(-ts\text{‘}i\). Because of the non-reflexive readings of the middle 1 marker, we refrain from positing a ‘reflexive marker’ for this morpheme. The observed tendency may reflect a historical development towards a formal distinction between reflexive events and agentless events.

The second issue is whether the middle extension 1 can be analyzed as a reflexive object pronoun. Formally, the middle extension appears to behave like a reflexive object pronoun because of its position in the verb: after the verb root or extended stem, in the position of an object pronoun. Moreover, both clipping and e/a-vowel alternation do not only apply to verb roots before the middle morpheme, but also before direct object pronouns (see 6.3). However, there are good arguments against this analysis. First, plural subject participants of middle-marked verbs can be marked by \(-wà\) after the middle morpheme.

\[
\eta\text{‘}íôkhò–ts\text{‘}i–wà–à
\]
wash-MID1-PL2=3

They washed themselves

The use of this plural subject marker is restricted to verbs without plural pronominal object: the presence of object pronouns rules out the option to mark plural subject participants by this morpheme. If the extension were analyzed as a reflexive object pronoun, \(-wà\) could not have coded plural subject participants of middle verbs. Rather, the plural object marker \(-wà\) would be expected, which appears before the (reflexive) object pronoun. Second, the two middle morphemes are not part of the paradigm of inflectional object markers which is used to code direct objects and secondary objects after verbal case markers. If the morphemes were analyzed as reflexive object pronouns, one would expect them to occur analogous to object
pronouns, e.g. after the causative 2 extension –sūkù, and after the benefactive marker –x. However, middle morphemes never occur in those positions. A periphrastic construction is used instead, e.g.:

\[
\text{ts'ëx–sw–àà hèsù–mèé–sà xwànté}
\]

oneself-fSFOC she-sake=3SG stir

She cooked (mash) for herself

Therefore, in a synchronic description of Sandawe the morphemes are better analyzed as middle stem markers: –ts'ì and –ts'ï are extensions that function as stem building devices.

### 6.2.6. Reciprocal stems

The morphological structure of reciprocal stems is irregular. There is a common form –kì, which is present in all reciprocal stems, but in most reciprocal stems this –kì is part of a more complex form. The basic structure of the reciprocal extension can be summarized as follows: (k)–(wå/?wå)–(ŋ)–kì. The most common form of the reciprocal extension is –ŋkì, which is often preceded by the plural direct object marker –wå / –?wå. The description starts with this form of the extension, then treats the simplest form –kì. Finally, the most complex form, –k–wå–ŋkì, is treated, which codes non-direct object reciprocity.

Many reciprocal stems are characterized by the extension –ŋkì, which is preceded by a form of the plural object marker. The following list shows reciprocal verbs that are derived from verb roots. The verb ||ˈụwàŋkì has no corresponding underived form.

\[\begin{align*}
\text{bìkhé–wå–ŋkì} & \quad \text{leave each other} \quad < \quad \text{bìkhé} \quad \text{leave} \\
\text{bòrì–wå–ŋkì} & \quad \text{invite each other} \quad < \quad \text{bòrì} \quad \text{invite} \\
\text{mènà–wå–ŋkì} & \quad \text{love each other} \quad < \quad \text{mènà} \quad \text{love} \\
\text{?ádúkù–wå–ŋkì} & \quad \text{help each other} \quad < \quad \text{?ádúkù} \quad \text{help} \\
\text{||ˈụwàŋkì} & \quad \text{dance with each other}
\end{align*}\]

The following examples illustrate reciprocal stems that are derived from verb roots with a plural object marker –?wå.

\[\begin{align*}
\text{|åŋ–?wå–ŋkì} & \quad \text{see each other} \quad < \quad \text{|åŋ} \quad \text{see} \\
\text{l’ò–?wå–ŋkì} & \quad \text{meet each other} \quad < \quad \text{l’òdò} \quad \text{meet} \\
\text{ŋlà–?wå–ŋkì} & \quad \text{grab each other} \quad < \quad \text{ŋlà} \quad \text{grab}
\end{align*}\]

Reciprocal stems that are derived from a causative stem (CAUS1 and CAUS2) have the same type of formation: the causative verb is followed by the plural object marker –wå and the reciprocal extension –ŋkì. The downstepped high tone on the
plural object marker is caused by the final low tone of the causative morpheme. The sequence kw is realized as a labialized consonant [kʷ].

\( k’\text{̣tλ}'-\text{sùk}'-\text{wá-ŋkɪ} \) make e.o. angry \( k’\text{̣tλ}'-\text{suk}' \) make angry (CAUS2)

\( m\text{̣m'k}'-\text{wá-ŋkɪ} \) feed each other \( m\text{̣m'k}' \) feed (CAUS1)

\( ŋlē'-'\text{sùk}'-\text{wá-ŋkɪ} \) make e.o. laugh \( ŋlē'-\text{suk}' \) cause to laugh (CAUS2)

Reciprocal stems derived from iterative stems have the extension -ŋkɪ.

\( \text{dùb'-ûmē-ŋkɪ} \) hit e.o. with fist \( \text{dùb'-ûmē} \) hit with fist (IT)

\( \text{fàr'-ûmē-ŋkɪ} \) lie to each other \( \text{fàr'-ûmē} \) lie (IT)

\( \text{xàl'-ûmē-ŋkɪ} \) annoy each other \( \text{xàl'-ûmē} \) annoy (IT)

There is one reciprocal stem with the extension -ŋkɪ that does not have an underived counterpart.

\( ||'\text{ānīkī} \) fight each other

A small number of reciprocal stems is derived by suffixing the reciprocal marker -kɪ to a verb root.

\( \text{bìk'hé-kɪ} \) leave each other \( \text{bìk'hé} \) leave

\( \text{wàk'ā-kɪ} \) kill each other \( \text{wàk'ā} \) kill (pl. stem)

\( 1'\text{̀dō-kɪ} \) meet each other \( 1'\text{̀dō} \) meet

\( ||'\text{̀hā-kɪ} \) follow each other \( ||'\text{̀hā} \) follow

Note that there are verbs with two reciprocal stems: the root bìk'hé ‘leave’ has both bìk'hé-kɪ and bìk'hé-wá-ŋkɪ ‘leave each other’; similarly, the root 1'\text{̀dō} ‘meet’ has two reciprocal stems: 1'\text{̀dō-kɪ} and 1'\text{̀dō-}wá-ŋkɪ ‘meet each other’.

The most elaborate form of reciprocal stem formation is illustrated below. The verbs in this group express events of non-direct object reciprocity: the reciprocity concerns an argument which is not an argument of the underived verb root. The reciprocal stem consists of a verb root, followed by -k’-wá-ŋkɪ. The sequence kw is realized as a labialized consonant [kʷ]. The element -k’ has a floating low tone, which causes a downstepped high tone on the following high tone of the plural object marker if the preceding tone (of the verb root) is high.

\( \text{bō-kwá-ŋkɪ} \) say to / tell each other \( \text{bō} \) say (sth)

\( \text{sàdō-kwá-ŋkɪ} \) converse with e.o. \( \text{sàdō} \) converse (intr.)

\( \text{tùrtē'-kwá-ŋkɪ} \) rest together \( \text{tùrtē} \) rest

\( \text{ts'èé'-kwá-ŋkɪ} \) drink at e.o.’s place \( \text{ts'èé} \) drink
**VERBS**

169

visit each other  <  wèrè  walk (intr.)

Another reciprocal stem of this type is (exceptionally) derived from a noun root.

be friends (of e.o.)  <  sàibà  friend

Reciprocal verbs express events in which the participants that carry out the action are at the same time affected by the action. For most of the Sandawe reciprocal verbs, the participants are both the agent and the patient of the action. The action is carried out by the agent(s) on the other participant(s), who is (are) agent(s) of that action too. For example, the participants of ḏākkì ‘follow each other’ are both followers and followed ones; similarly, the participants of k’āttì’ēsì’kwàŋkì ‘make each other angry’ both make angry and are made angry.

Sometimes there is no patient role in reciprocal events. The action is carried out by the participants and simultaneously affects them, but the participants are not genuine undergoers of the action. Examine the following verbs:

say to each other

converse with each other

dance with each other

The participants in these reciprocal events are agents of the action, and recipients or undergoers of the action at the same time. Except for the verb ḏūwàŋkì, reciprocal stems in this set are all of the form ‘root-k –wà–ŋkì’. Therefore the element –k in this type of stem formation is analyzed as a marker that introduces an extra argument into the reciprocal stem.

Reciprocity of an event requires plurality of the participants. The subject of reciprocal verbs is therefore always a plural subject. Next to that, the plurality of participants in reciprocal verbs is often coded by a plural object marker (–wà, –?wà). In two cases, a reciprocal stem can be formed both with and without the plural object marker. No detailed investigation has been made of the use of the two variants, but there appears to be a difference in distributivity. The reciprocal stems

---

63 As the agent is simultaneously the patient of the action in these cases, one might interpret the reciprocal marker –ŋkì as a reciprocal pronoun. This interpretation would be supported by the position of the marker, namely after the plural object morpheme, in the position of the object pronoun. Arguments against this analysis are the variability of the form of the reciprocal marker (as opposed to the uniformity of object suffixes), and the occurrence of the reciprocal marker with verbs in which participants are subjects but not direct objects of the action.

64 –k̩̄ is historically related to the causative morphemes –k̩̄ and –súk̩̄ or to the allomorph –kw̩̄ of the benefactive marker.
with a plural object marker have a collective reading, while the ones without a plural object marker focus on the single individuals.

<table>
<thead>
<tr>
<th>bikhéki</th>
<th>bikhéwáŋki</th>
</tr>
</thead>
<tbody>
<tr>
<td>leave each other (1 to 1, or 1 to many)</td>
<td>leave each other (many to many)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>l’ôdóki</th>
<th>l’ôdôwáŋki</th>
</tr>
</thead>
<tbody>
<tr>
<td>meet each other (1 with 1, or 1 with many)</td>
<td>meet each other (many with many)</td>
</tr>
</tbody>
</table>

Parallel to the plurality of participants in a reciprocal event, there is plurality of action. All the participants in the event carry out the action, so the action is carried out multiple times. The plurality of action is sometimes coded overtly, when a reciprocal stem also contains an iterative extension, e.g. xat–‘mé–ŋki ‘annoy each other’. However, these verbs do not necessarily imply that the reciprocal event is carried out multiple times. On the contrary, most iterative reciprocals are the default reciprocal stem, as a (non-iterative) reciprocal stem does not exist:

hámá > hámá–mé–ŋki (*hámáwáŋki)
insult insult each other (*insult each other multiple times)

The plurality of action in these reciprocals, as coded by the iterative extension, is thus an inherent part of the event. The resulting iterative reciprocal forms are considered ‘plain reciprocals’. This is reflected in the translation.

There is one instance in which a reciprocal stem can be contrasted to an iterative reciprocal stem. In this case, the iterative reciprocal stem has a compositional meaning: the iterative morpheme indicates that the event is carried out repeatedly.

<table>
<thead>
<tr>
<th>wërë–kwáŋki</th>
<th>wërë</th>
</tr>
</thead>
<tbody>
<tr>
<td>visit each other</td>
<td>walk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>wër–‘më–ŋki</th>
<th>wër–‘më</th>
</tr>
</thead>
<tbody>
<tr>
<td>visit each other frequently</td>
<td>visit (IT)</td>
</tr>
</tbody>
</table>

The following example illustrates the context in which the iterative reciprocal stem can occur. The clause is part of a story about Hare and Rooster, who were good friends. They often did things together and visited each other a lot.

very=3PL they (POSS.)home-DIR-home-DIR=3PL walk-IT-REC
They visited each other a lot at home.
6.3. Direct object marking

Objects can be marked on the verb by means of object suffixes. Object suffixes are used to code direct objects and oblique objects. Oblique objects are always preceded by a verbal case marker, which are discussed in section 6.5. The present section deals with direct object marking.

The section is ordered as follows. After the introduction, the forms of the object suffixes are presented, followed by a description of morphophonological changes when subject clitics follow the object pronoun. The second part of this section discusses the morphological processes by which object pronouns are marked. The third part focuses on third person object marking.

Transitive verb roots and extended stems can have one or, occasionally, two direct objects that are coded on the verb by a pronoun. The presence of one object suffix is common.

\[\text{mëénà–sw–ā} \]
love-3SG=3
He loves her

The number of transitives with two direct objects is small. Examples are causatives that are derived from transitive roots, and the verb ‘give’, which is actually an empty stem. The pronominal coding of two objects on ditransitive causatives is possible but only occurs sporadically. The verbal coding of the object after the root when there is another object pronoun after the causative extension is probably restricted to the third person object pronoun –ē. In the following example, the first object pronoun after the root refers to the patient of the action of building, which agrees with the lexical object 5+4‘4# ‘house’; the object pronoun after the causative extension codes the causee: the one who is caused to build.

\[\text{khòò=sà} \quad \text{tììng–ē–sùkù–sé} \]
house=3SG build-3O-CAUS2-1SG
She made me build a house.

Double object marking on the zero stem ‘give’ is common: usually both a patient and a recipient object are coded by direct object pronouns. (For more information on the zero verb stem for acts of exchange, see section 6.6).

\[\text{kàkùrù=qò} \quad \text{sè–ē} \]
calabash=2SG:OPT 1SG-3O
Give me the calabash.

Table 28 presents the verbal object pronouns of Sandawe. The third person object pronoun –ē is used for third person masculine singular objects; moreover it codes
third person plural non-human and/or non-specific objects in combination with the plural object marker –wá (section 6.4.1). Therefore the gloss for this object pronoun is 3o, rather than 3msg. The third person plural object pronoun țig codes third person plural specific human objects.

Table 28: Verbal object pronouns

<table>
<thead>
<tr>
<th>OBJ</th>
<th>1SG</th>
<th>2SG</th>
<th>3O</th>
<th>3sg</th>
<th>1pl</th>
<th>2pl</th>
<th>3pl</th>
</tr>
</thead>
<tbody>
<tr>
<td>sé</td>
<td>pó</td>
<td>é</td>
<td>(é)-sú</td>
<td></td>
<td>sűŋ</td>
<td>sīŋ</td>
<td>țīŋ</td>
</tr>
</tbody>
</table>

The suffixes undergo regular morphophonological changes when they are immediately followed by a vowel. This is the case when vowel-initial subject clitics follow an object suffix.

The suffixes –sé and –pó can be realized in two ways when the subject clitic –à (third person) is suffixed. Usually, the oral vowels of the object suffixes assimilate to the quality of the following vowel. Alternatively, the object suffix is not changed. The subject clitic is realized as a separate syllable, with glide formation in between the two vowels. The two realizations are in free variation.

hūmāsáà, hūmāséyà  <  hūmà–sé–à
overcome-1SG=3
He overcame me

hūmāpáà, hūmāpówà  <  hūmà–pó–à
overcome-2SG=3
He overcame you

The subject clitic –à (third person non-realis) does not change the form of the object suffixes. After an oral vowel, the clitic is realized as a syllable-final glide.

hūmāpóý  <  hūmà–pó–à
overcome-2SG-3:NR
He will overcome you

The final vowel of –(é)sú, 3sg, is realized as labialization on the preceding consonant s when followed by a vowel. The length of the vowel is maintained.
hûmâswêê  <  hûmâ–sû=ê
overcome-3SG=2PL
You overcame her

Suffixes ending in a nasal, i.e. –sûŋ (1PL); –sîŋ (2PL); –tîŋ (3PL), have an epenthetic consonant g inserted in between the object suffix and the vowel of the subject clitic.

hûmâsûŋgâ  <  hûmâ–sûŋ=à
overcome-1PL=3
He overcame us

The suffix for third person objects, –ê, assimilates to the preceding vowel.

mânts’hâásî  <  mânts’hâ–ê=sî
eat-3O=1SG
I ate it

ŋ‖ôkhôsî  <  ŋ‖ôkhô–ê=sî
wash-3O=1SG
I washed him

Alternatively, this suffix is realized as a separate syllable with an initial glide: –yê. This form appears after verbs with a long final vowel, and occasionally after short vowels too. The form may be a more prominent way of marking the third person object suffix on the verb.

pêéyêkô  <  pêé–ê=kô
put:SG=3O=2SG:OPT
Put it down!

ʔàâ  ʔîñ–mê–yê
CNJ2.3PL close-IT-3O
And they closed it.

The simplest means of direct object marking on the verb is suffixation. In many cases the object pronoun is suffixed directly to the verb root or the extended stem (as exemplified above). However, some verb roots undergo changes when an object pronoun is present. Moreover, the object pronoun –ê is sometimes not suffixed, but rather infixed in the root. The processes in which object pronouns are not (only) simply suffixed to roots can be summarized as follows:

1) clipping of the verb root and suffixation
2) infixation of ê (3O)
3) ê/a-alternation of the verb root and suffixation
1. Some roots undergo clipping before the suffixed object pronoun. Clipping operates on disyllabic verb roots and reduces them to monosyllables. The original tone pattern is maintained on the clipped form. Generally clipping operates on disyllabic roots with final strings mé, né, and wé. In roots with medial nasal consonants, the vowel is clipped and the preceding nasal (m or n) is realized as a homorganic nasal, N. In roots with a final string wé, both the vowel and the medial consonant w are clipped.

clipping of verb roots with a final string mé

<table>
<thead>
<tr>
<th>Verb</th>
<th>Initial Form</th>
<th>Clipped Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>thiN-</td>
<td>cook (OBJ)</td>
<td>thimé</td>
</tr>
<tr>
<td>!ëN-</td>
<td>accompany (OBJ)</td>
<td>!èmé</td>
</tr>
</tbody>
</table>

clicking of verb roots with a final string né

<table>
<thead>
<tr>
<th>Verb</th>
<th>Initial Form</th>
<th>Clipped Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>têN-</td>
<td>build (OBJ)</td>
<td>téné</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IN-</td>
</tr>
</tbody>
</table>

clicking of verb roots with a final string wé

<table>
<thead>
<tr>
<th>Verb</th>
<th>Initial Form</th>
<th>Clipped Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>!hwá-</td>
<td>shave (OBJ)</td>
<td>!hwáwé</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ú-</td>
</tr>
</tbody>
</table>

ŋ!wáné ‘ask for’ is an exception to this generalization as it does not have a clipped form.

Although the verb root ŋ|in| ‘eat (meat)’ does not end in one of the strings mentioned above, it has a clipped form. The HL tone pattern of the root changes to a H tone on the clipped form.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Initial Form</th>
<th>Clipped Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ŋ</td>
<td>IN-</td>
<td>eat (meat) (OBJ)</td>
</tr>
</tbody>
</table>

The resulting clipped form of the verb root is the base to which the object pronoun is suffixed. The following paradigm illustrates the verb !èmé ‘accompany’ with the object suffixes.
Note that the third person object pronoun –é behaves different from the other pronouns: there is no clipping and the pronoun is infixed. Infixation of this pronoun occurs with mé and wé-final roots, see 2. below. For né-final roots, –é is suffixed to the homorganic nasal of the clipped form, which is realized as ŋ, e.g. tthiné ‘build’:

\[
\text{tthiné + é} > \text{tθN–é} > \text{tθŋé}
\]

When a clipped form with a homorganic nasal is followed by a glottal stop, the verb form is realized with a nasalized vowel:

\[
\text{lémé + ŋ} > \text{!θN–ŋ} > \text{!g–ŋ}
\]

2. Infixation is a morphological process in which the third person object pronoun is inserted in the root, instead of being affixed to the end. It takes place on disyllabic roots with final strings mé and wé. Infixation only takes place with the third person object pronoun –é, the only object suffix without initial consonant. The quality of the vowel assimilates to the preceding vowel.

\[
\begin{align*}
\text{tò–ó–mé} & \text{ cultivate it} < \text{tlémé + é} \\
\text{thí–í–mé} & \text{ cook it} < \text{tlθmé + é} \\
\text{!b–é–mé} & \text{ accompany him/it} < \text{!lémé + é} \\
\text{ha–á–wé} & \text{ fetch it} < \text{hlwé + é} \\
\text{|| ò–ù–wé} & \text{ shoot him/it} < \text{||lwé + é}
\end{align*}
\]
3. A restricted set of verb roots displays an e/a-vowel alternation: monosyllabic verb roots, which have a final vowel ee when no object suffix is present, have a short vowel a when an object pronoun is suffixed. The following list illustrates the verbs that undergo this alternation.  

<table>
<thead>
<tr>
<th>Verb Root</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>swa-</td>
<td>strip off (OBJ)</td>
</tr>
<tr>
<td>twa-</td>
<td>pick (OBJ)</td>
</tr>
<tr>
<td>ts'á-</td>
<td>drink (OBJ)</td>
</tr>
<tr>
<td>hwá-</td>
<td>take out (OBJ) of calabash</td>
</tr>
<tr>
<td>wá-</td>
<td>hide (OBJ)</td>
</tr>
<tr>
<td>hwá</td>
<td>strip off (OBJ)</td>
</tr>
</tbody>
</table>

The following example illustrates the full paradigm of object suffixes on the verb root wêé ‘hide’.

<table>
<thead>
<tr>
<th>OBJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
</tr>
<tr>
<td>2SG</td>
</tr>
<tr>
<td>3O</td>
</tr>
<tr>
<td>3YS</td>
</tr>
<tr>
<td>1PL</td>
</tr>
<tr>
<td>2PL</td>
</tr>
<tr>
<td>3PL</td>
</tr>
<tr>
<td>PL-3O</td>
</tr>
</tbody>
</table>

As can be seen from the paradigm, the occurrence of the root-vowel a depends on the presence of an object suffix. The third person object pronoun –ê assimilates to the preceding vowel of the root.

The verb root ṣ|wêé ‘do’ has an irregular form when an object pronoun is suffixed. It cannot be categorized under one of the three processes mentioned above. The plural object stem of this root is irregular too (section 6.4.1).

ṣ|úʔiyá-  do, create (OBJ) < ṣ|wêé

---

65 Not all monosyllabic verb roots with a final vowel ee display the alternation, e.g. ŋ|bê ‘skin’; tê ‘count’ do not.
66 The verb root twêé ‘pick’ has a rising tone pattern, the a-form has a low tone. However, when the plural object marker ŋ|wá is suffixed, the a-form appears with the rising tone pattern: twá–ʔgwá–á.
Object marking on transitive extended stems is rather transparent: object pronouns are almost always suffixed directly to extended stems.

\[ t’a\text{-}p’\text{-}ûnû\text{-}\text{sg} \]

hit-IT-3PL=3SG

She hit them multiple times

\[ hûmbû\text{-}kò \quad khwàà\text{-}sé\text{-}è \]

cow=2SG:OPT return-FACT-3O

Return the cow!

In extended stems, there are a number of cases where the presence of an object pronoun has effect on the form. First, iterative stems undergo a tonal change when –é or –èsú follows (see section 6.2.2); e.g. \( xàd\text{-}ûnû\text{-}è \rightarrow xàdèsúmè \) ‘scrape it out multiple times’. The same change takes place when a non-human plural object is coded on an iterative stem: \( xàd\text{-}im\text{-}è\text{-}à \) ‘scrape them out multiple times’. Further, sûkû-causatives have optional suffix support by the vowel à, which is placed after the stem and before the object suffix (see section 6.2.4); e.g. \( një\text{-}sûkû\text{-}sè\text{-}sà \rightarrow njëësûkwàà\text{insà} \) ‘she made you laugh’.

Third person object marking has some peculiarities. As shown in table 28, there are three suffixes that are used to mark third person objects: –èé, –èsú, and –ènû. The object suffix –ènû refers to third person plural objects that are human and specific. All other third person objects are marked in one way or another by the third person object pronoun –èé.

For third person singular objects there is a gender distinction between masculine and feminine. Masculine singular objects are coded by –èé. The object pronoun may be the only marker for the object, but the object can also be specified lexically in addition to the object suffix. Note that –èé is infixed in the following two verb forms (\( ëmè\text{-}èé > ëmè \)).

\[ ëmè\text{-}èé\text{-}sèj \]

accompany.3O=1SG

I have accompanied him

\[ gëlë\text{-}sèj \quad ëmè \]

gèle=1SG \( \text{sv.} \) accompany.3O

I have accompanied Gele

Direct object marking of feminine referents is more complex. The form of the object suffix, –èsú, incorporates the third person object suffix, –èé.

\[ hâmà\text{-}mè\text{-}è\text{-}sw\text{-}à \]

insult-IT-3O-3FS=3

He insulted her multiple times
Verb roots with an infixed third person object suffix display this third person object form before the suffix –sú.

lëmë–sw=ä
accompany.3o-3fsg=3
He has accompanied her

For a few verbs, the suffix is simply –sú. The form –sú may be a phonologically reduced form of –ësú, but conditions are not clear.

siyë–sw=ä
take:sg-3fsg=3
He has married her

|än–sú=sj| see-3f=1sg
I have seen her

In the examples above, the feminine referents are all coded by the third person feminine singular suffix. However, coding of the feminine gender is not obligatory. The examples below show that a feminine object that is both lexically and pronominally specified, can be marked on the verb by the third person feminine singular suffix, or by the third person object suffix –ë only. 67

k’ats’awa=sj| tη||ôkhû–ó–sû
K’ats’awa=1sg
sv.wash-3o-3fsg
I washed K’ats’awa (f.)

Finally, the third person object suffix is found with third person plural objects that are non-animate and/or non-specific (i.e. those that cannot be coded by –ë[ŋ]). The plurality of these objects is marked by the plural object marker –wá / –pwa. The object suffix –ë follows the plural object marker and assimilates to the preceding vowel.

67 This also holds for the pronominal coding of feminine oblique objects after a derivational marker (section 6.5).
He has helped the group of strangers.

Occasionally the third person object suffix occurs after a suppletive plural stem. When one consultant was confronted with the following clause (by another consultant), he claimed it was not grammatical until the object suffix was removed.

The train took bales.

On a later occasion however, the same consultant used the same suppletive plural stem with an additional third person object suffix and said the suffix is optional.

The pictures are nice and therefore she took them.

### 6.4. Verbal plurality marking

Sections 6.4.1 and 6.4.2 discuss the plural markers -wá / -ʔwá and -wà, respectively. The uses and meanings of the markers are summarized in table 29. The labels depend on the primary uses: plural direct object marker (PL1) for -wá / -ʔwá; plural non-direct object marker (PL2) for -wà. The two markers are mutually exclusive: the presence of the plural object marker in a verb excludes the presence of the plural non-direct object marker and vice versa.

<table>
<thead>
<tr>
<th>-wá / -ʔwá</th>
<th>-wà</th>
</tr>
</thead>
<tbody>
<tr>
<td>- plural direct object marker</td>
<td>- plural non-direct object marker:</td>
</tr>
<tr>
<td></td>
<td>plural subject marker</td>
</tr>
<tr>
<td></td>
<td>plural oblique object marker (for COM, APPL)</td>
</tr>
<tr>
<td>- plural action marker: intensity</td>
<td>- habitual marker</td>
</tr>
</tbody>
</table>

In many languages the verbal coding of plurality of intransitive subjects and transitive objects is related. Sandawe is a language that displays this relation by and large (see also Kießling 2010). A common form -wa is present in the morphemes

---

68 Languages in the vicinity of Sandawe that display the same relation are the Southern Cushitic languages Alagwa and Burunge (Kießling 2010), and the Nilotic language Datooga (Kießling 1998).
that code object plurality, and in the morpheme that codes subject plurality. The tone is different for the two markers, but note that the high tone of the plural object marker corresponds to the high tone of the following object pronoun (section 6.3); similarly, the low tone of the plural non-direct object marker corresponds to the low tone of subject clitics (section 5.1).

6.4.1. The plural marker –wá / –ʔwá

The plural marker –wá / –ʔwá (PL1) is primarily a plural object marker for non-human and/or non-specific plural direct objects. In its primary function the marker appears before the object pronoun –é (3O). In its secondary function, the plural marker adds plurality to the meaning of the verb.

The forms of the plural object marker, –wá and –ʔwá, are in near-complementary distribution. The distribution of the allomorphs is conditioned by the preceding verb. The glottal stop in the allomorph –ʔwá adds a phonetic syllable to the plural marker. The following table gives a general overview of the distribution of the allomorphs, after which the categories are treated and exemplified.

Table 30: Distribution of the allomorphs of the plural object marker

<table>
<thead>
<tr>
<th>–ʔwá</th>
<th>–wá</th>
</tr>
</thead>
<tbody>
<tr>
<td>- monosyllabic verb roots</td>
<td>elsewhere, i.e.</td>
</tr>
<tr>
<td>- clipped disyllabic verb roots</td>
<td>- non-clippable disyllabic verb roots</td>
</tr>
<tr>
<td></td>
<td>- verb roots of three syllables and more</td>
</tr>
<tr>
<td></td>
<td>- extended verb stems (IT, FACT, CAUS1)</td>
</tr>
</tbody>
</table>

The following examples illustrate monosyllabic verb roots and the forms with the plural object marker –ʔwá:

| bô | bô–ʔwá– | say |
| khâa | khâ–ʔwá– | hit |
| tê’dé | tê–ʔwá– | reduce, diminish |
| xéé | xé–ʔwá– | bring |
| jàŋ | jà–ʔwá–, jà–ʔwá– | see |
| ñ!à | ñ!à–ʔwá– | grab |
| ||à | ||à–ʔwá– | plant |
| ||’dè | ||’dè–ʔwá– | skin |

Long vowels in the verb root are shortened when –ʔwá is suffixed. The tone pattern of the root is maintained and realized on the short vowel. Verb roots with high-low tone patterns present some exceptions to this generalization: sometimes the high-low pattern remains high-low before the plural object marker, e.g. bô ‘say’ > bô–ʔwá–; sometimes, the tone pattern on the root changes from high-low to high, e.g. ||à
‘plant’ > ṭ-ʔəwá-. The plural stem of the verb root ṭan ‘see’ has been observed both with high-low and high tone patterns: ṭ-ʔəwá-, ṭ-ʔəwá-.

Monosyllabic verb roots with the e/a-alternation (intr./tr) have the a-form before the plural object marker –ʔwá. For more information on this vowel alternation, see section 6.3 on direct object marking.

swéé swá-ʔəwá– strip off (skin)
twéé twá-ʔəwá– pick
ts’ée ts’á-ʔəwá– drink
\hwéé hwá-ʔəwá– take (seeds) out of calabash
\wéé wá-ʔəwá– hide
\hwéé hwá-ʔəwá– strip off (grains, leaves)

The monosyllabic verb root ṭj|wéé ‘do’ is irregular.⁶⁹

\j|wéé \j|ú-ʔəwá– do, create

The form \j|ú– could be seen as a special kind of clipping, in which the root \j|wéé loses its vowel ee. The labial component of the initial click is realized as a vowel. Note however that there are no other examples of this kind.

Disyllabic roots that can be clipped receive the plural object marker –ʔwá. Disyllabic forms that can be clipped end in mé, né, or wé. The clipped form is monosyllabic. The tone pattern of the disyllabic root is realized on the single syllable, which may lead to a contour tone. The plural object marker –ʔwá is suffixed to the clipped form.⁷⁰ If the root contains a final string mé or né, the clipped form has a homorganic nasal, which is realized as a nasalized vowel before I.

tómé tó-ʔəwá– cultivate
thimé thí-ʔəwá– cook
\hmé hí-ʔəwá– sing
\lómé ló-ʔəwá– accompany
\tíné tín-ʔəwá– lighten
\'n lí-ʔəwá– build
\'néné nhí-ʔəwá– hunt
\h\néné ní-ʔəwá– remove feathers
\j\unéné \j|ú-ʔəwá– wash

⁶⁹ The irregularity of this verb extends to the form which is used when an object suffix is added: \j|ûʔiyá–, see section 6.3.
⁷⁰ The clipped form is also the basis for the suffixation of direct object pronouns, see section 6.3.
By exception the following disyllabic verb roots receive the marker –ʔwá.

\[\text{bálóó} \quad \text{báló–ʔwá–} \quad \text{herd}\]
\[\text{ḥwàná} \quad \text{ḥwàn–ʔwá–} \quad \text{hatch}\]
\[\text{ŋį́ńį́} \quad \text{ŋį́–ʔwá–} \quad \text{eat (meat)}\]

The verb root əŋį́ńį́ ‘eat (meat)’ does not end in any of the strings mentioned above, but it does have a clipped form before the plural object marker –ʔwá: əŋį́–ʔwá–. The high-low tone pattern of the root changes to a high tone pattern when the plural object marker is suffixed. The other two verb roots are disyllabic, but cannot be clipped. Nevertheless, they receive the allomorph –ʔwá, rather than –wá.

In the speech variety around Farkwa, –ʔwá is also used for the plural object form of iterative stems (section 6.2.2).

\[\text{tάŋk–imém–ʔwá–} \quad \text{chase_away–IT–PL.1}\]
Chase away multiple times

The plural object marker –wá is used elsewhere, i.e. on verb roots of two syllables that cannot be clipped, on verb roots that have more than two syllables, and on extended stems. The following list illustrates verb roots with the corresponding plural object form.

\[\text{māntshà} \quad \text{māntshà–wá–} \quad \text{eat}\]
\[\text{mînîki} \quad \text{mînîki–wá–} \quad \text{understand}\]
\[\text{tî́nkhé} \quad \text{tî́nkhé–wá–} \quad \text{kick}\]
\[\text{ŋàkhnà} \quad \text{ŋàkhnà–wá–} \quad \text{put in armpit}\]
\[\text{ŋ‖áxé} \quad \text{ŋ‖áxé–wá–} \quad \text{not know}\]
\[\text{ŋ‖ókhô} \quad \text{ŋ‖ókhô–wá–} \quad \text{wash}\]

The verb root əŋwâné ‘ask for’ is disyllabic and has a final string né, but it does not have a clipped form. The plural object marker –wá is used with this root:

\[\text{ŋ‖wâńé} \quad \text{ŋ‖wâńé–wá–} \quad \text{ask for}\]
Extended stems that receive the plural object marker –wá are iteratives, factives, and causatives. The examples below illustrate them. Note that the plural object form of these stems sometimes entails a more complex formation type. More information on the formation of plural object forms can be found in the sections on iterative, factitive and causative stems.

<table>
<thead>
<tr>
<th>Extended stem</th>
<th>Form with plural object marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>tš'òng-ìmé</td>
<td>tš'òng-ìm-á-á</td>
</tr>
<tr>
<td>Pierce-IT</td>
<td>Pierce-IT-PL-1-3O</td>
</tr>
<tr>
<td>Pierce multiple times</td>
<td>pierce them multiple times</td>
</tr>
<tr>
<td>fik'j-śé</td>
<td>fik'j-m-śé-wá</td>
</tr>
<tr>
<td>stick_in-FACT</td>
<td>stick_in-PL-FACT-PL1</td>
</tr>
<tr>
<td>Stick in</td>
<td>stick in (PL OBJ)</td>
</tr>
<tr>
<td>ṣ</td>
<td>dř</td>
</tr>
<tr>
<td>strip_off-FACT</td>
<td>strip_off-FACT-PL1, strip_off-(PL OBJ)</td>
</tr>
<tr>
<td>Strip off</td>
<td>Strip them off (multiple times)</td>
</tr>
<tr>
<td>ṣ</td>
<td></td>
</tr>
<tr>
<td>stand_up-CAUS1</td>
<td>stand_up-CAUS1-PL1</td>
</tr>
<tr>
<td>Put upright</td>
<td>put upright (PL OBJ)</td>
</tr>
</tbody>
</table>

The plural object marker is integrated into most reciprocal and some middle stems. The marker appears before the extension, different from what happens in iterative, factitive and causative stems. The table below lists some examples. Both allomorphs of the plural marker occur in reciprocal and middle stems. The verb root on which the stem is based determines which allomorph is used. Thus, monosyllabic roots and roots that can be clipped have –wá before the reciprocal and middle stem markers; –wá is used elsewhere, after disyllabic and longer roots.

| Table 31: The use of the plural object marker in reciprocal and middle stem formation |
|---------------------------------|---------------------------------|
| Reciprocal stems               | Middle stems                   |
| Plural marker –wá              | Plural marker –wá              |
| ṣ-ʔwá-ŋkí                      | bikh-́wá-ŋkí                    |
| See-PL-1-REC                   | leave-PL-1-REC                 |
| See each other                 | Leave each other               |
| bó-ʔwá-ts’í                    | hámà-́wá-ts’í                  |
| Say-PL-1-MID1                  | beat_off-PL-1-MID1             |
| Say to oneself                 | Dust off oneself               |
The plural object marker has two functions:

a) as an inflectional marker coding plurality of the object participant
b) as a marker coding plurality of action

a) The plural object marker is primarily a plural object marker for non-human objects, collective objects, and non-specific human objects. Plural objects of these three categories are coded verbally by an object suffix that follows the plural object marker. This suffix is the third person direct object pronoun –čε, which is glossed 3O. It assimilates to the preceding vowel a of the plural object marker. Since there is no nominal plurality marking for non-human nouns, the verbal plural object marker is the only means of coding the plurality of the object.

\[ \text{gōr̥d̥=s} \quad \eta\|\text{kq̥-wá-á} \]

pillar=1sg stand_up-CAUS1-PL1-3O

I have erected pillars.

\[ \text{`wēn̥-x̥-ŋg=á} \quad \text{x̥-q̥wá-á} \]

hyrax-COLL-DEF bring-PL1-3O

He has brought the (group of) hyraxes.

\[ \eta\|\text{ko=sa} \quad \eta\|\text{khọ-wá-á} \]

child.pl=3sg wash-PL1-3O

She has washed children.

The use of the plural object marker in coding the plurality of objects is inflectional for the three categories. The combination of the plural object marker and the third person object pronoun can be seen as a third person plural object marker.

The plural object marker is not used to code participant plurality with the plural object suffixes –sūn (1PL), –sīn (2PL), and –síŋ (3PL), as these are markers of specific-human objects.\(^{71}\) If the plural object marker is present with these object pronouns, it codes the plurality of action, as described under b).

b) In its second use the plural object marker does not code the plurality of an object, but rather adds plurality to the meaning of the verb. Compared to the obligatory presence of the plural marker in coding the plurality of non-human and/or non-specific objects, this use of the marker is more a free choice of the speaker.

In the following examples, verb forms with the plural object marker in the left column are contrasted to forms without the plural object marker in the right column.

\(^{71}\) Note that suppletive singular/plural stem pairs (section 6.1) behave differently. First, the plural marker is not used with these verbs to code direct object plurality (nor plurality of action). Second, suppletive plural stems code plurality of all plural referents, including specific human objects. Thus, when a plural object pronoun is suffixed to a verb from the set of suppletive stems, it can only be the plural stem.
The use of the plural object marker in the left column does not depend on the direct object. The plural object marker appears on verbs with both singular and plural objects. Further, its presence does not depend on the nature of the object. The presence of the plural object marker lends an additional aspect to the meaning of the verb root, namely intensity.

\begin{verbatim}
manawasepo
know-PL1-1SG-2SG:NR
You will discover/get to know me!

manawasungpo
know-PL1-1PL-2SG:NR
You will discover/get to know us!

amanasa
see-1SG-3
He stared at me

amanunga
see-PL1-1PL-3
He stared at us

\end{verbatim}

Similarly, the plural object marker occurs in a specific construction in which an event is carried out with high intensity. The verb forms used in this construction have no direct object, many verb roots are intransitive. Even so, the plural object marker is followed by the third person object suffix in this construction. The construction often contains an adverb of degree.

\begin{verbatim}
?urasa keqwasa
very=3SG cry-PL1-3O
She cried very much.

\end{verbatim}

An applicative marker and the third person object pronoun can follow the plural object marker. The additional argument in these verbs can refer to an object on whom or because of whom an action is carried out.

\begin{verbatim}
?urasa keqwasa-tseco
very=3SG cry-PL1-3O-APPL-3O
She cried very much because of him.

\end{verbatim}

Alternatively, the additional argument may be interpreted as referring to the event itself, thus stressing the intensity with which the action is carried out.
The presence of the plural object marker in some middle stems (table 31) cannot be explained satisfactorily. Since middle verbs are intransitive, there is no object that can be marked for plurality. One might assume that it codes plurality of action, i.e. an action that is carried out with higher intensity or for a longer time, but this assumption does not hold for all examples. Therefore, the marker is considered to be part of middle stem formation.

\(\text{vomit-\text{PL} \text{-\text{MID}}}1\)

Vomit on oneself

\(\text{see-\text{PL} \text{-\text{MID}}}1\)

Watch oneself

The two meanings of the plural object marker lead to polysemy when the plural object marker is combined with the third person object pronoun –é. First, the object pronoun can refer to a third person plural object in combination with the plural object marker. Second, the object pronoun can refer to a third person masculine singular object, in which case the plural object marker adds to the meaning of the verb.

\(\text{know-\text{PL} \text{-3O} \text{-2SG:NR}}\)

1. You will know them (non-specific human or non-human object)
2. You will get to know him!
6.4.2. The plural marker –wà

The plural marker –wà (PL2) primarily codes plurality of non-human and/or non-specific non-direct objects, i.e. subject arguments and object arguments which are introduced by the comitative and applicative derivations. The second meaning of the marker is the coding of plurality of action of verbs without verbal object suffix, i.e. as a habitual marker.

As a plural marker of oblique (comitative/instrumental and applicative) objects, –wà is separated from the verbal object pronoun. The marker precedes the verbal case marker plus the third person object pronoun (–ê). Thus verbs with non-human and/or non-specific oblique objects have the following form:

Comitative/instrumental: \[ V\text{–}wà\text{–}ká\text{–}á \]
Applicative: \[ V\text{–}wà\text{–}ts'ê\text{–}ê \]

For more information and examples see section 6.5.

As a plural marker for subject arguments, –wà codes plurality of non-human and/or non-specific subjects. The plural marker is the final morpheme of the verb form and forms a plural subject stem. The morpheme is attached both to verb roots and extended stems.

\begin{align*}
  \text{må̂ntshà} & \quad \text{må̂ntshà–wà} & \quad \text{eat (PL subject stem)} \\
  \eta\text{ôkho–ts’ì} & \quad \eta\text{ôkho–ts’ì–wà} & \quad \text{wash oneself (PL subject stem)}
\end{align*}

The plural subject stem is usually combined with a third person subject clitic, which is attached to the verb or another constituent.

\begin{align*}
  \text{kurio–?η=wà} & \quad \text{?ùtshùkù=wà} \\
  \text{Kurio=INST=OPT.3} & \quad \text{pass-PL.2} \\
  \text{They should pass through Kurio.}
\end{align*}

\begin{align*}
  \text{?ùtshùkù=wà–wà} & \quad \text{pass-PL.2-3:NR} \\
  \text{They will pass.}
\end{align*}

However, when a lexical subject carries a subject focus marker, there is no subject clitic. The plural subject marker on the verb is still present.

---

72 Specific animate subjects are coded by separate subject clitics. The plurality of these arguments is never coded by the plural marker.
In its secondary function, the plural non-direct object marker -wà is used as a habitual marker. It is attached both to intransitive and transitive verbs, but only to verbs without verbal object pronouns.

I use to go to the field.

What do you usually eat?

The two uses of the plural non-direct object marker can lead to polysemy. The following example shows how a verb with the plural marker can code plural subjects. At the same time, the verb has an habitual meaning for a third person singular subject.

1. They ate; 2. He usually eats

6.5. Verbal case marking: benefactive, comitative, applicative

Oblique objects are non-core arguments of the clause. An oblique object may be a separate constituent in the clause (a postpositional phrase), or it may be coded as a pronoun on the verb. When an oblique object is marked on the verb, it is coded by an object suffix preceded by a derivational marker. The following three derivational markers introduce oblique objects into the verbal argument structure:

1) the benefactive marker -x
2) the comitative marker -kà
3) the applicative marker -ts’è

Derivational markers are suffixed to a root or an extended stem, and follow direct object pronouns, if present.

She cooked it (mash) for me
It is the choice of the speaker to include the oblique object in the verb. Usually it is possible to express the extra argument periphrastically, i.e. in a postpositional phrase. Thus, the verb may always occur without derivational marker and oblique object marking. There is one exception, nóká 'bring', which cannot occur without the derivational morpheme -ká. Morphologically, it behaves like other verbs with a comitative morpheme: the plurality of inanimate objects is coded by the plural morpheme -wà before the comitative marker (cf. section 6.5.2).

The coding of multiple oblique objects is rare. There are a few intransitive verbs that can have both comitative and benefactive oblique objects: hík' ̃ / níʔ ̃ ’go (SG/PL)’; ̃ / ̃ ’come (SG/PL)’; thà / gínbé ’run (SG/PL)’. The comitative always precedes the benefactive marker.

You (PL) come with it for me, bring it to me!

6.5.1. Benefactive –x

The benefactive morpheme –x introduces a pronominal object, which marks for whom the event is carried out. The morpheme has a floating low tone, which causes the high tone of the object pronoun to be realized as a downstepped high tone. It has an allomorph, –kw, which is used before third person singular object suffixes.\(^{73}\) The following paradigm shows the verb ||hémé ‘pay’ with the benefactive morpheme and all object suffixes.

\(^{73}\) Note that this allomorph plus object pronoun (–é / –ésú) and the causative extension –kq plus é / ésú are homophonous, e.g. mántahà–kw–té ‘1. eat for him; 2. feed him’.
There is some variation regarding the form of the benefactive morpheme before third person plural oblique objects. The most regular form consists of the benefactive morpheme \( \text{hèmè} \) plus \( \text{kw-} \), as demonstrated above. However, in elicitation the benefactive morpheme was sometimes doubled, i.e. both \( \text{hèmè} \) and \( \text{kw-} \) were used before \( \text{kw-} \):

\[
\text{hàawé-} \text{x-} \text{kw-} \text{7in}=\text{sj}
\]

fetch.3O-BEN-BEN-3PL=1SG
I fetched it for them

There is no separate form for inanimate and/or non-specific third person plural benefactive objects.

The benefactive morpheme expresses that the action of the verb is carried out on behalf of the object. Usually, the object benefits from the action (hence the term benefactive), e.g.:

- \( \text{bè-x} \) — tell < \( \text{bò} \) — say
- \( \text{nòkà-á-x} \) — bring < \( \text{nòkà-á} \) — bring
- \( \text{tìkìnà-x} \) — leave over (food) for < \( \text{tìkìnàá} \) — leave over (food)
- \( \text{thìnì-x} \) — cook for < \( \text{thìnì} \) — cook
- \( \text{tìfìnì-x} \) — build for < \( \text{tìfìnì} \) — build
- \( \text{ñìkhò-x} \) — wash for < \( \text{ñìkhò} \) — wash

However, some ‘benefactive’ verbs show that the oblique object can be negatively affected by the action.

\[
\text{pàròkò-áá} \quad \text{‘7ìsì-} \text{x-} \text{sé}
\]

parish_priest-SFOC SV.refuse-BEN-1SG
The priest has refused me.
màntshà-á-x-í’sá=à
eat-3O-BEN-1SG=3
He has eaten it for me (i.e. he has eaten my food).

Verbs with the benefactive morpheme must be followed by a verbal object pronoun. An alternative way of expressing a benefactive oblique object is the postposition mèc ‘on behalf of’. In this construction, the oblique object is an independent pronoun or a noun (phrase). The verb does not have a benefactive morpheme in this construction.

hàpú–mèc=sì ‘thímé
you-sake=1SG sv.cook
I cooked for you.

wàkháá=sà nólá-á hàsì=mèc
firewood=3fG bring-3O DEM2.f person.f-sake
She brought firewood for that woman.

6.5.2. Comitative –ká

The derivational marker –ká marks comitative oblique objects. The marker is suffixed to a verb root or an extended stem. It is followed by an object suffix that codes the comitative or instrumental pronominal object, cf. the paradigm of the verb nì|bè ‘enter’ with the marker –ká and all object suffixes.

$\text{nì|bè} \quad > \quad \text{nì|bè–ká–} \quad \text{‘enter with (OBJ)’}$

<table>
<thead>
<tr>
<th>OBJ</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>nì</td>
</tr>
<tr>
<td>2SG</td>
<td>nì</td>
</tr>
<tr>
<td>3O</td>
<td>nì</td>
</tr>
<tr>
<td>3fG</td>
<td>nì</td>
</tr>
<tr>
<td>1PL</td>
<td>nì</td>
</tr>
<tr>
<td>2PL</td>
<td>nì</td>
</tr>
<tr>
<td>3PL</td>
<td>nì</td>
</tr>
<tr>
<td>PL-3O</td>
<td>nì</td>
</tr>
</tbody>
</table>

Object suffixes with an initial vowel e, i.e. 3O and 3fG, assimilate to the preceding vowel a of the comitative/instrumental marker.

Plural inanimate and/or non-specific oblique objects are coded by the non-direct object plural marker –wà–. The marker occurs before the comitative/instrumental marker.
Because of the position of the plural marker before the derivational marker, one might assume that it codes either plurality of another argument, or plurality of action. The two clauses below show that neither alternative is right.

dítá=sà  jí-wà-ká–á
egg=3SG  come:SG-PL2-COM-3O
She has come with eggs, she has brought eggs

dítá=ʔì  n̕áti–wà–ká–á
egg=3PL  come:PL-PL2-COM-3O
They have come with eggs, they have brought eggs

The subject argument of the verb in the first clause is a singular referent, ‘she’. For plural subject referents, the suppletive plural stem n̕áti ‘come (PL)’ is used (see second clause), but this has no consequences for the plural marker –wà–. In other words, the plural marker –wà– is not used to code the plurality of an argument other than the oblique object.74 Moreover, each of the clauses above describes a single action, in which the subject has come with multiple objects. Thus wà– is not used to code the plurality of action.

The marker –ká introduces comitative oblique objects. The event as expressed by the verb is carried out (together) with the oblique object. The comitative oblique object can be animate or inanimate. Many examples are comitative verbs derived from intransitive verbs of movement. The following list illustrates this.

\[
\begin{align*}
h₁k’j̕–ká– & \quad \text{go with; send (SG stem)} \quad \text{<} \quad h₁k’j̕ \quad \text{go (SG stem)} \\
níʔj̕–ká– & \quad \text{go with; send (PL stem)} \quad \text{<} \quad níʔj̕ \quad \text{go (PL stem)} \\
nó–ká– & \quad \text{bring} \\
\text{than̕j}–ká– & \quad \text{run here with} \quad \text{<} \quad \text{than̕j} \quad \text{run (centripetal)} \\
[k]–ká– & \quad \text{come with; bring (SG stem)} \quad \text{<} \quad [k] \quad \text{come (SG stem)} \\
n̕áti–ká– & \quad \text{come with; bring (PL stem)} \quad \text{<} \quad n̕áti \quad \text{come (PL stem)} \\
n̕ê–ká– & \quad \text{enter with} \quad \text{<} \quad n̕ê \quad \text{enter}
\end{align*}
\]

The comitative derivation is also used in the verb riŋgo–ká–. This is a lexicalized comitative verb with a specialized meaning. It expresses the use of metaphorical language with (a) person(s).

\[\text{Transitive verbs cannot have both a plural inanimate/non-specific direct object and a plural inanimate/non-specific oblique object, i.e. verbs of the form V-wá–á–wà–ká–á do not exist. The reason is a general phonotactic restriction that two phonetically near-identical morphemes do not occur in a sequence.}\]
In a number of cases the oblique object after the comitative marker is interpreted as the instrument with which the event is carried out.

- dübé-ká- hit with < dübé hit
- thàts’ó-ká- shoot with < thàts’ó shoot, fire
- ts’á–á-ká– drink it with < ts’á–á drink (OBJ)
- xîhê-ká– roughen with, on < xîhê roughen

The following example shows an instrumental oblique object.

sé–ó=kwê k’âmê=ʔê ts’á–á-ká–á
1SG-3O=OPT.2PL beer=1SG.OPT drink-3O-COM-3O
You give it to me, so I drink beer with it.

The utterance consists of two clauses. The first clause has three arguments: an agent (2PL), a recipient object (1SG), and a patient object (3O). The pronominal patient object, ‘it’, refers to the money which the addressees should give to the speaker. The second clause shows how the money will be used: as an instrument to (buy and) drink beer. Again the clause has three arguments: an agent subject (1SG), a patient object (‘beer’, 3O), and an instrumental oblique object (3O). The pronominal oblique object after the comitative marker refers to the money.

If the oblique object of a comitative verb is specified by a noun phrase as well, the noun phrase does not need additional marking. In other words, the noun phrase, which is coreferential with the verbal oblique object, behaves as a direct object of the comitative verb.

kitabu=kò |i–ká–á
book=2SG.OPT come:SG-COM-3O
Come with the book!

The same applies if the oblique object is the instrument of an event.

dâñi=ṣj thàts’ó–ká–á
arrow=1SG (SV)shOOT-COM-3O
I fired with an arrow.

There is an alternative instrumental construction, in which the instrument is only specified by a postpositional phrase. In this case the verb does not contain the pronominal oblique object, nor the comitative marker. The postposition that is used in these constructions is ~ʔη ‘with, using’.

VERBS
Comitative verbs are analyzed as verbs with an additional comitative or instrumental oblique object. The comitative morpheme introduces the pronoun that marks this object. There is one specific use of the comitative verb that does not require a pronominal oblique object: a form with the plural marker –wà– but without an object pronoun. This form occurs with subjects marked for the optative. It has an imperfective reading, in contrast to optative forms with an oblique object pronoun. The latter forms imply that the action will be completed (see also Eaton (2008) on object marking and aspect in Sandawe).

| Start bringing, go on bringing! | Bring them! |

| shoot-PL-COM=2SG:OPT | shoot-PL-COM-3O=2SG:OPT |
| Start firing, go on firing! | Shoot them, fire them! |

### 6.5.3. Applicative –ts’è

The applicative morpheme –ts’è introduces an additional pronominal object into the argument structure of a verb. The suffixation of object pronouns to this morpheme leads to several morphophonological changes and irregular forms. Consider the following paradigm, which is representative for the combination of the applicative morpheme and the object pronouns. The applicative verb sìyè–ts’è ‘deprive’ is derived from the verb root sìyè ‘take (SG OBJ)’.

<table>
<thead>
<tr>
<th>OBJ</th>
<th>sìyè–ts’è–</th>
<th>‘take it from (OBJ), deprive (OBJ)’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>sìyè–ts’è–sè</td>
<td>sìyè?ètsahè</td>
</tr>
<tr>
<td>2SG</td>
<td>sìyè–ts’è–pò</td>
<td>sìyè?ètpò</td>
</tr>
<tr>
<td>3O</td>
<td>sìyè–ts’è–è</td>
<td>sìyèts’èù</td>
</tr>
<tr>
<td>3SG</td>
<td>sìyè–ts’è–èsu</td>
<td>sìyèts’èsu</td>
</tr>
<tr>
<td>1PL</td>
<td>sìyè–ts’è–sùu</td>
<td>sìyè?ètsshùu</td>
</tr>
<tr>
<td>2PL</td>
<td>sìyè–ts’è–sùn</td>
<td>sìyè?ètsshùn</td>
</tr>
<tr>
<td>3PL</td>
<td>sìyè–ts’è–ùn</td>
<td>sìyèts’ùn</td>
</tr>
<tr>
<td>PL-3O</td>
<td>sìyè–wà–ts’è–è</td>
<td>sìyèwàts’èù</td>
</tr>
</tbody>
</table>
- The paradigm shows that the morpheme –ts’e only retains its original form when an object pronoun follows which is based on the third person object pronoun –ê, i.e. 3o, 3SG, and PL-3O.

- When the third person plural object pronoun is suffixed, the morpheme-final vowel e and the suffix-initial consonant τ are omitted. The low tone of the applicative morpheme leads to a downstepped high tone on the applicative plus object suffix: –ts’g.

- When object suffixes with an initial g follow the applicative morpheme, i.e. 1SG, 1PL, and 2PL, a complex realization results. The consonant ts’ becomes tsh. Moreover, it is preceded by a released glottal stop: ts’e-s > ?tsh.75

- When the second person singular suffix –pô follows the applicative morpheme, the applicative morpheme is reduced to a released glottal stop: ts’e-pô > ?pô.76

The plurality of third person plural oblique objects (inanimate and/or non-specific) is coded by the plural marker –wá-. The marker precedes the applicative morpheme: –wá-ts’e-ê. The plural marker cannot co-occur with the plural object marker –wá / –?wá for direct objects. However, when a pronominal oblique object follows a plural direct object, it may be interpreted as a plural object too, even if it is not overtly marked as such.

\[
\text{The bees have built in the (group of) beehives. (lit. they have build them in it)}
\]

\[
\text{The beehive-COLL-DEF build-PL-3O-APPL-3O = 3PL}
\]

\[
\text{The bees have built in the (group of) beehives. (lit. they have build them in it)}
\]

\[
\text{I have tied bells onto them (cows).}
\]

The applicative derivation adds a pronominal oblique object to the argument structure of a verb. Generally a spatial relation is involved with the applicative verb: the event (or the direct object) is directed towards or away from the oblique object, or the event takes place on (the location of) the oblique object. The following list illustrates some applicative derivations:

<table>
<thead>
<tr>
<th>tie on(to) OBJ</th>
<th>put into OBJ</th>
<th>put (SG stem)</th>
<th>take from OBJ (SG stem)</th>
</tr>
</thead>
</table>

75 Only one variant occurs in my data, but Eaton (2008) notes two distinct variants: [tsh] and [ʔs]. She lists the following realizations for the applicative morpheme plus object suffixes: 1SG [ʔs], [ʔs]; 1PL [ʔs]; 2PL [ʔs], [ʔs]; 2SG [ʔs]. Eaton (2008) also mentions a different realization of the applicative morpheme plus 2SG object suffix: [pá].

76 This realization can be compared to the locative postposition –ts’, which can be realized as a released glottal stop (see section 3.6.3).
The oblique object of an applicative verb must be specified by an object pronoun. The oblique object may also be coded in the nominal domain, but this is not obligatory. When the argument is specified lexically, it functions as a direct object of the applicative verb. No postpositions are used to express the spatial relation between the oblique object and the event.

\[ t\text{áa=}k\text{ò} \quad h\text{í=}á-á-ts\text{'e} \quad ë \]
\[ \text{goat=}2\text{SG:OPT} \quad \text{tie-3O-Appl-3O} \]
Bind it on the goat!

However, the direct object of an applicative verb may be expressed lexically too. Thus, in the nominal domain there is no syntactic distinction between the direct and the oblique object of an applicative verb. In the following clause, the nominal argument is the direct object of the applicative verb; the oblique object is only marked pronominally.

\[ m\text{izi}g\text{o=}k\text{ò} \quad h\text{í=}á-wá-á-?t\text{h\text{ù}n}\text{ù} \]
\[ \text{baggage=}2\text{SG:OPT} \quad \text{tie-3O-Appl-1PL} \]
Bind the loads onto us!

When both object arguments are expressed lexically, there are two lexical direct objects. Generally, the additional argument, which is introduced by the applicative derivation, precedes the first object. Moreover, it has a definiteness marker.

\[ k\text{a}r\text{a}t\text{a}s\text{i=}n-t\text{à}=n\text{à}=s\text{j}\text{i} \quad p\text{ë}=t\text{'s}\text{'e} \quad ë \]
\[ \text{paper-DEF-in-DIR=}1\text{SG} \quad \text{put:3G-Appl-3O} \]
I have put a book on the paper.

Applicative verbs that introduce a locative argument may alternatively be expressed by a locative construction. This construction consists of a locative postpositional phrase. The verb cannot have an applicative marker, nor a pronominal oblique object in this case, e.g.:

\[ k\text{a}r\text{a}t\text{a}s\text{i=}n-t\text{à}=n\text{à}=s\text{j}\text{i} \quad p\text{ë} \]
\[ \text{paper-DEF-in-DIR=}1\text{SG} \quad \text{put:3G} \]
I have put it on the paper.

In the following example with an applicative verb, the direct object (which is marked after the iterative morpheme) is coreferential with the location in which the locking up takes place. The oblique object of the verb is the patient of the locking
up. The applicative verb expresses that an object is locked up inside a location, literally by ‘closing something upon/around the object’.

They locked up the heifer in a cowshed.

The example shows that the feminine oblique object of the verb is coreferential with the lexical direct object ‘the heifer’. The pronominal direct object refers to the postpositional phrase ‘in a cowshed’. Interestingly there is a mismatch between the syntactic status of the arguments in the verbal and the nominal domain: the verbal oblique object is coreferential with a direct lexical object; the verbal direct object is a postpositional phrase in the nominal domain.

A final note concerns the use of the applicative morpheme with third person object suffixes. In a number of cases, -ts’-é, or -wá-á-ts’è / -?wá-á-ts’è can be used to express that the event is carried out with high intensity (see also section 6.4).

She cried very much because of him.

I have cried very much

Laugh much

Say much

Although an object appears to be marked in case of -wá-á-ts’è / -?wá-á-ts’è, verbs cannot have a lexical direct object in this construction. Only an adverb of degree may be added to this construction.

6.6. The zero verb stem for acts of exchange

One verb has a zero stem and only consists of pronominal markers and an (optional) plural object marker. The verb expresses an act of exchange (‘give’ or ‘receive, take’). When three arguments are marked in the clause, it expresses ‘give’. The subject is the agent of the exchange and may, in the form of a subject clitic, occur on
a non-verbal constituent. The other two arguments, the patient object and the recipient object, form the verb form in the example below.

\[ \text{ts'á=á} \quad \text{pó–é} \]
\[ \text{water=1SG} \quad 2SG-3O \]
I gave you water.

The recipient object can be singular or plural. A plural object is preceded by the plural object marker –?wá.

\[ \text{mató} \quad \text{pó–?wá–á–á} \]
\[ \text{gourd} \quad 2SG-PL-1-3O-1SG-NR \]
I will give you gourds.

The following paradigm lists verb forms according to person, gender, and number of the recipient object. The patient object (–é) has singular number. For reference, the regular verbal object pronouns are presented on the right.

<table>
<thead>
<tr>
<th>Person</th>
<th>Object</th>
<th>Pronoun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>ts’á=á</td>
<td>sé–é</td>
<td>He gave me water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>1SG-3O</td>
<td></td>
</tr>
<tr>
<td>2SG</td>
<td>ts’á=á</td>
<td>pó–é</td>
<td>He gave you water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>2SG-3O</td>
<td></td>
</tr>
<tr>
<td>3O</td>
<td>ts’á=á</td>
<td>ŋi–é</td>
<td>He gave him water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>3O-3O</td>
<td></td>
</tr>
<tr>
<td>3fSG</td>
<td>ts’á=á</td>
<td>ŋi–é–sú</td>
<td>He gave her water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>3O-3O-3fSG</td>
<td></td>
</tr>
<tr>
<td>1PL</td>
<td>ts’á=á</td>
<td>súng–é</td>
<td>He gave us water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>1PL-3O</td>
<td></td>
</tr>
<tr>
<td>2PL</td>
<td>ts’á=á</td>
<td>síng–é</td>
<td>He gave you (PL) water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>2PL-3O</td>
<td></td>
</tr>
<tr>
<td>3PL</td>
<td>ts’á=á</td>
<td>ŋing–é–?iŋ</td>
<td>He gave them water</td>
</tr>
<tr>
<td></td>
<td>water=3</td>
<td>3PL-3O-3PL</td>
<td></td>
</tr>
</tbody>
</table>

The paradigm below presents forms with a plural patient object.

<table>
<thead>
<tr>
<th>Person</th>
<th>Object</th>
<th>Pronoun</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>mátó–a</td>
<td>sé–?wá–á</td>
<td>He gave me gourds</td>
</tr>
<tr>
<td></td>
<td>gourd=3</td>
<td>1SG-PL1-3O</td>
<td></td>
</tr>
<tr>
<td>2SG</td>
<td>mátó–a</td>
<td>pó–?wá–á</td>
<td>He gave you gourds</td>
</tr>
<tr>
<td></td>
<td>gourd=3</td>
<td>2SG-PL1-3O</td>
<td></td>
</tr>
<tr>
<td>3O</td>
<td>mátó–a</td>
<td>ŋi–?wá–á</td>
<td>He gave him gourds</td>
</tr>
<tr>
<td></td>
<td>gourd=3</td>
<td>3O-PL1-3O</td>
<td></td>
</tr>
<tr>
<td>3fSG</td>
<td>mátó–a</td>
<td>ŋi–?wá–á–sú</td>
<td>He gave her gourds</td>
</tr>
<tr>
<td></td>
<td>gourd=3</td>
<td>3O-PL1-3O-3fSG</td>
<td></td>
</tr>
</tbody>
</table>
Note the deviant forms for third person objects. The third person (masculine) object marker is ฎ (cf. the regular verbal object pronoun – hoá). The third person recipient feminine object marker –สู is added after the patient object, while the third person object marker ฎ before the patient object is retained. The third person plural object marker –ฎิ (which is realized as –ฎี before a glottal stop) occurs both before and after the patient object.

When only two arguments are expressed in the clause, the verb expresses ‘receive, take’. This use of the zero verb is rare and has only been attested in commands. The subject, to whom the command is addressed, is the intended beneficiary of the exchange. The other argument is the patient object.

7é=kò
3o=2sg;opt
Take it!

kwà?ánà=kò 7é=7éwà–á
five=2sg;opt 3o-pl-3o
Take five (of them)!

Note that the plural object in the second example occurs twice, both before and after the plural object marker –ฎ.

### 6.7. Special verbs

There are four types of verbs with special pronominal subject marking:

- ‘to be (somewhere)’
- ‘not to be’
- ‘to have’
- adjectival verbs.

These verbs have a single series of (verbal) subject suffixes, which do not mark modality. Formally, these subject pronouns are almost identical to the non-realis subject clitics (see section 5.1.2). Except for tshé ‘not be’, the verbs have a morpheme –สิ in common, which precedes the subject marker. --sì is glossed ‘BE’ in transcriptions.
6.7.1. ‘To be (somewhere)’ and ‘not to be’

The paradigm of the locative verb ‘to be (somewhere)’ is based on two verb stems: kóó–si for singular subjects and nèè–si for plural subjects. The etymology of the element kóó is unclear, compare however nèè ‘to stay (PL)’ to the plural stem.

The subject marker is obligatorily attached to the verb stem.

<table>
<thead>
<tr>
<th>Person</th>
<th>Verb Stem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG</td>
<td>kóó–sì–sì</td>
</tr>
<tr>
<td>2SG</td>
<td>kóó–sì–pò</td>
</tr>
<tr>
<td>3MSG</td>
<td>kóó–s–è</td>
</tr>
<tr>
<td>3fSG</td>
<td>kóó–sù–sù</td>
</tr>
<tr>
<td>1PL</td>
<td>nèè–sù–sùŋ</td>
</tr>
<tr>
<td>2PL</td>
<td>nèè–sì–sìŋ</td>
</tr>
<tr>
<td>3PL</td>
<td>nèè–sì–sò</td>
</tr>
</tbody>
</table>

Note that the final vowel of the verb stem assimilates to the vowel of the subject marker if this is u: kóó–sì–sì > kóó'sú'sú ‘she is present’; nèè–sì–sùŋ > nèè'sú'súŋ ‘we are present’.

The verb may be used with or without a complement. The verb is often used without a complement as the introduction to a greeting. The second speaker in the dialogue confirms that s/he is around, typically after a period of absence.

kóó–sì–pò=nè
be_present:SG-BE-2SG=Y/NQ
Are you present?

?ééé, kóó–sì–sì
yes  be_present:SG-BE-1SG
Yes, I am present.

When the verb occurs with a complement, it refers to a location.

kóó–s–è   mìndà–tà
be_present:SG-BE-3 field-in
He is in the field.

tśí  kóó–sì–sì ?ò  bèèbà
1 be_present:SG-BE-1SG here be_near
I live close to this place.
In negation the suppletive verb stem *tshè* ‘not be (present)’ is used, which is followed by a subject marker.

1SG  tshè–sè
2SG  tshè–pò
3MSG  tshè
3FSG  tshè–sù
1PL  tshè–sùŋ
2PL  tshè–sùŋ
3PL  tshè–sò

The subject markers are formally almost identical to the subject markers that follow the affirmative stems *kó–sì* and *nè–sì*, but some forms are irregular: –sè vs. –sì (1SG); –sù vs. –sì (3FSG); *tshè* (3MSG) has no overt subject marker.

### 6.7.2. ‘To have’

The verb ‘to have’ is a derived form which consists of a noun (the possessed item), the morpheme –sì, and a subject marker. The subject marker is obligatorily attached to the verb stem and does not mark modality. The forms below show the paradigm with the possessed item *diṅâni* ‘arrow’:

1SG  diṅâni–sì–sì  I have an arrow
2SG  diṅâni–sì–pò  You have an arrow
3MSG  diṅâni–sì–ē  He has an arrow
3FSG  diṅâni–sì–sùŋ  She has an arrow
1PL  diṅâni–sì–sùŋ  We have an arrow
2PL  diṅâni–sì–sùŋ  You (PL) have an arrow
3PL  diṅâni–sì–sò  They have an arrow

Nouns, except for some that denote humans, have no means of marking plural number (see section 3.3). However, in the verb ‘to have’, plural number of the possessed noun is marked by a plural marker –wà, which is attached after the noun and before –sì, e.g. *diṅâni–wà–sì–sùŋ* ‘we have arrows’.

The negative equivalent of this construction uses the invariable final negation clitic –ts’ē, e.g.:

*diṅâni–sì–ē–ts’ē*
arrow-BE-3=NEG2
He doesn’t have an arrow.

---

77 Note the formal similarity of this verb to the negative realis clitic (section 5.3.1).
A liar has no relatives (Saying; ‘People don’t want to be associated with liars’)

### 6.7.3. Adjectival verbs

Adjectival verbs are derived from verb roots by the morpheme -sí. They express a state or condition of the subject.

- màngàdzà → become long
- thúnà → become short
- |ˈé→ look at
- ts’mànkwé → shine
- bátê → grow big
- mànà → know
- !héké → become insane

The subject marker is obligatorily attached to the verb stem and does not code modality.

- màngàdzà-sí-síj → I am tall
- màngàdzà-sí-pò → You are tall
- màngàdzà-sí-ê → He is tall
- màngàdzà-sú-súj → She is tall
- màngàdzà-sú-sù̞ → We are tall
- màngàdzà-sí-sù̞ → You (PL) are tall
- màngàdzà-sí-sò → They are tall

When the plural marker -wà is added (before -sí), it marks plurality of the subject. It is used to mark the plurality of non-human subjects; these cannot have a 3PL subject marker:

- théè hékewè màngàdzà-wà-sí-ê → These trees are tall.

The plural marker may be added to 3PL human forms as well: màngàdzà-wà-sí-sò ‘they are tall’.

The negation marker =t’sé marks the negative equivalent of these constructions. The clitic is attached after the subject marker.

- kheʔé-s-ê-t’sé → he is deaf
- bό-s-ê-t’sé → he is mute