ESTUDOS SÔBRE LÍNGUAS E CULTURAS INDÍGENAS
REPEATED MORPHS IN MUNDURUKÚ

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0. Introduction
1. Repeated morphs within the word
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0. Introduction.

The features of repeated morphs described in this paper are pervasive throughout three levels of the grammatical structure of Mundurukú—word, sentence and paragraph. This repetition has considerable variety of function and must be translated in different ways. Repeated morphs within the word are described as the process of stem reduplication, which affects several classes of words.

Repeated morphs within the sentence are described as a process of affixation of that sub-class of nouns described as classifiers. The classifiers are affixed in structures other than nouns to constitute a system of agreement. Categories of nouns determined by the occurrence of some forty classifiers
appear to reflect groupings of natural phenomena which, to the Mundurukú, have similar physical characteristics.

Repeated morphs within the paragraph are described as a system of pro forms. This system differentiates paragraph-initial structure from non-initial structure. Classified nouns occur in their full form paragraph-initially and thereafter in either pro forms or amplified pro forms.

1. Repeated morphs within the word.

The reduplication of noun, color and numeral stems, relationals, verb stems and a few particles is described as repeated morphs within the word.

1.1 Reduplication of noun stems.

1.1.1. A noun stem may be reduplicated to form the predicate of a possessive clause. The reduplication in this instance is best translated by the verb 'to have'. The last syllable of the noun stem is reduplicated, and an obligatory possessive pronoun is prefixed to the stem. The prefixation indicates the possessor, while the reduplication indicates possessive predication in a possession clause type, c.f.

\[
\text{a}^2 \text{ko}^3 \text{ba}^4 \text{ banana } \text{we}^3 \text{a}^2 \text{ko}^3 \text{ba}^4 \text{ my banana}
\]

\[
\text{we}^3 \text{a}^2 \text{ko}^3 \text{ba}^4 \text{ba}^4 \text{ I have a banana; a}^3 \text{xi}^3 \text{ma}^2
\]

\[
\text{fish } \text{we}^3 \text{a}^3 \text{xi}^3 \text{ma}^2 \text{ my fish } \text{we}^3 \text{a}^3 \text{xi}^3 \text{ma}^2 \text{ma}^2
\]

\[
\text{I have fish.}
\]
1.1.2. A similar construction denotes existence, and the reduplication of the noun stem is best translated in this instance by the verb 'to be'. The consonants of the last syllable of the stem are reduplicated, but the vowel is changed to /e/. This reduplication indicates existential predication in an existential clause type, c.f.

\[ a^3 xi^3 ma^2 \text{ fish}, \quad a^3 xi^3 ma^2 me^2 \text{ fish exist or there are fish.} \]

Non-existence is indicated by the addition of the negative suffix -\(ni^2\) which follows the reduplicated syllable. c.f.

\[ a^2 ko^3 ba^4 \text{ banana, } a^2 ko^3 ba^4 be^4 \text{ there are bananas, } a^2 ko^3 ba^4 be^4 ni^2 \text{ there are no bananas.} \]

The above two constructions are of special importance in that they constitute a special non-verbal clause type.

1.1.3. Some nouns which are kinship terms occur in a reduplicated form when they are non-vocative, and in a non-reduplicated form when they are vocative, e.g.

\[ \text{bay}^3 \text{ father! bay}^3 \text{ bay}^3 \text{ father.} \]

1.1.4. For several nouns (mostly persons), reduplication of the final syllable of the stem and the addition of the plural suffix \(-yf^3\) together indicate plurality:

\[ \text{be}^3 \text{ ki}^2 \text{ child, be}^3 \text{ ki}^2 \text{ yi}^3 \text{ children}^3; \quad \text{ya}^4 \text{ bi}^2 \text{ old person, ya}^4 \text{ bi}^2 \text{ bi}^2 \text{ yi}^3 \text{ old persons.} \]
1.1.5. The noun stem tïː2mfn3 thing plus a reduplicated classifier stem indicates a generic class of objects:

\( tïː2mfn3tîp2tîp2 \text{leaf-like objects,} \)
\( tïː2mfn3?a2?a2 \text{ round objects.} \)

1.1.6. Some animal and bird names consist of a completely or partially reduplicated stem. The function of the reduplication in this case appears to be onomatopoeic:

\( o3ro2o3ro2 \text{ a type of monkey, ko3re3ko3re3 frog.} \)

Repeated reduplication of these stems indicates the noise made by the animal or bird:

\( ko3re3ko3re3ko3re3ko3re3 \text{ etc. noise of a frog croaking.} \)

1.2 Reduplication of color stems.

Color stems, which are all monosyllabic, are reduplicated in three ways: i) the consonants of the stem are reduplicated and the vowel changed to /e/, ii) the consonants are reduplicated and the vowel changed to /i-/ , iii) the initial consonant(s) are reduplicated and the suffix -ist\(^1\) is added. Reduplication type i) does not appear to have any particular meaning:

\( i3 \text{rem3rem2 blue, i3pak3pek3 red.} \)

Reduplication type ii) renders the denotation of the stem more vague, and may best be translated as
'more or less' or '-ish', c.f.

\[ i^3 r e m^3 r i^2 m^2 \text{ bluish}, i^3 p a k^3 p i^2 k^2 \text{ reddish}. \]

Reduplication type iii) intensifies the denotation of the stem:

\[ i^3 r e m^3 r i^2 s t^1 \text{ very blue}, i^3 p a k^3 p i^2 s t^1 \text{ very red}. \]

1.3 Reduplication of numeral stems.

The number \( p f n^3 \text{ one} \) is reduplicated to indicate multiplicity: \( p f n^3 p f n^2 \text{ some} \). The numbers \( x e p^3 x e p^2 \text{ two} \) and \( e^3 b a^2 d i p^3 d i p^2 \text{ four} \) are inherently reduplicated. In the first, the stem is reduplicated while in the second only the final syllable of the stem is reduplicated. In these cases, no meaning has been found for the reduplication. The only other number in the language is \( e^3 b a^2 p f n^3 \text{ three} \), which does not reduplicate.

1.4 Reduplication of relationals.

Relationals are reduplicated when their referent is plural. c.f.

\[ c e^3 k o^3 b e^2 k i^2 n^2 \text{ he has a canoe (his-canoe with)}, \]
\[ c e^3 k o^3 b e^2 k i^2 k i^2 n^2 i p^2 \text{ they have a canoe (his-canoe with-reduplicated they)}, \]
\[ i k^3 ? a^2 \text{ house } i k^3 ? a^2 w a t^3 \text{ resident of a house } \]
\[ i k^3 ? a^2 w a t^3 w a t^3 \text{ residents of a house.} \]

Some relationals are inherently reduplicated:

\[ -j e^3 j e^2 \text{ on top of, } -k o^2 r e n^3 r e n^3 \text{ encircling}. \]
1.5. Reduplication of particles.

Some particles are inherently reduplicated:
- ?it\(^2\) ?it\(^2\) diminutive, -xi\(^2\)xi\(^2\) collective. c.f.
a\(^3\)ya\(^3\)cat\(^2\) woman, a\(^3\)ya\(^3\)cat\(^2\) ?it\(^2\) ?it\(^2\) girl;
da\(^3\)je\(^2\) pig, da\(^3\)je\(^3\)xi\(^2\)xi\(^2\) herd of pigs.

1.6. Reduplication of verbs.

1.6.1. Intransitive and transitive verbs have four forms, two of which involve reduplication. The two types of reduplication indicate durative state or repeated event. In the durative state form of the verb, the reduplicated form is as follows: If the final syllable of the stem ends in a nasal or semi-vowel, the entire stem is reduplicated, e.g.,

\[ i^3mi^3di^2rem^2rem^2 \text{ is wetting it, } i^3wiy^3wiy^3 \text{ is washing it, } i^3mi^3ka^2raw^3ka^2raw^3 \text{ is toasting it.} \]

If the final syllable of the stem ends in a voiceless stop, the final syllable of the reduplicated stem ends in a nasal which is homorganic to this stop, e.g.

\[ i^3sip^2sim^2 \text{ is cleaning it, } je^3xi^2ri^2rik^2xi^2ri^2rin^2 \text{ is lightning.} \]

If the verb stem consists of a single V syllable, the reduplicated form is -hVm, V being the same V as that of the verb stem. e.g.

\[ i^3ya^4i^2him^2 \text{ is squeezing it out, } je^3r^2hi^2m^2 \text{ is climbing up.} \]

If a single V syllable verb stem is prefixed with the causative prefix i\(^3\)mi\(^3\)/i\(^3\)mi\(^3\)y\(^3\), the reduplicated
stem is preceded by $-i^3$.

* $i^3mi^3dip^2i^3dim^2$ is making it pretty,

* $i^3mi^3ci^4k^4i^3ci^n^4$ is hardening it.

If the verb stem consists of a single CV syllable, the reduplicated form is CVN, in which N is a nasal consonant. It is not possible to predict phonologically which nasal will occur, e.g.

* $i^3bi^3wa^2no^3da^2dam^2$ is helping him,

* $ay^3pa^3pan^3$ is growing old (male),

* $je^3a^3ka^2kan^2$ is staring.

In the repeated event form of the verb, the stem is reduplicated without phonological changes, e.g.

* $-?at^2?at^2$ was falling,

* $-je^3bok^4bok^4$ was floating.

1.6.2. Positional intransitive verb stems reduplicate to indicate plurality:

* $xik^2?i^3$ seated (singular) (verb stem-position marker),

* $ka^3xik^2xik^2?i^3$ seated (plural) (marker-verb stem-reduplicated verb stem-position marker),

* $po^2?i^3$ lying down (singular) (verb stem-position marker),

* $ka^3po^2po^2?i^3$ lying down (plural) (marker-verb stem-reduplicated verb stem-position marker).

1.6.3. Some descriptive verbs have a reduplicated form in which the reduplication indicates intensification of the quality described:

* $i^3ka^3?i^2$ wild,

* $i^3ka^3?i^2?i^2$ very wild.

Descriptive verbs also have a reduplicated form
when they occur as adverbs in a modified verb phrase. This reduplication occurs when the subject of the verb is plural: c.f.

\[ o^3e^2xe^3 i^3re^3 \text{he arrived hungry} (\text{he-arrived he-hungry}), \]
\[ o^3e^2xe^3xe^3ip^2 i^3re^3re^3 \text{they arrived hungry} (\text{he-arrived-plural-they-he-hungry-plural}). \]

2. Repeated morphs within the sentence.

Noun roots may be divided into two categories—classifier and non-classifier. Classifiers are inalienably possessed noun roots which function to classify objects which have similar physical characteristics, e.g.

- \[ ba^4 \text{arm-like objects}. \]

Noun stems may also be divided into two categories—classified and unclassified. Classified nouns are those which contain one or more classifiers. Simple classified nouns consist of a single classifier root, e.g.

- \[ ba^4 \text{arm}. \]

Complex classified nouns consist of a base manifested by either a classifier or a non-classifier root, plus one or more further classifiers, e.g.

\[ a^2ko^3ba^4 \text{banana}, ce^3ne^3ba^4 \text{wing}, \]
\[ wa^2je^3ba^4 \text{cocoa fruit}. \]

When a classified noun occurs in a sentence, the classifier(s) is (are) repeated in other words in the sentence.

Types of complex classified nouns are described
in 2.1.; classifier morphemes are listed in 2.2.; the rules for repetition in other words, and the allomorphic variations which occur are described in 2.3.

2.1. Types of complex classified nouns.

The most common type consists of a base manifested by a classifier plus up to four classifier morphs juxtaposed in genitive relationship:

- třn\textsuperscript{3}pi\textsuperscript{2} intestines (dung-finger),
- y\textsuperscript{k}\textsuperscript{3}pi\textsuperscript{3}di\textsuperscript{2} dysentery (belly-pain-liquid),
- y\textsuperscript{k}\textsuperscript{3}pi\textsuperscript{3}da\textsuperscript{2}sen\textsuperscript{2}pi\textsuperscript{3} intestinal worms (belly-interior-seed-worm-finger).

A second type consists of a Base manifested by a non-classifier noun plus one or more classifiers. This combination of noun and classifier also indicates possession, e.g.

- kak\textsuperscript{3}ti\textsuperscript{y} fox's tooth (fox tooth),
- kak\textsuperscript{2}tap\textsuperscript{3} fox's hair (fox hair).

A third type like type 2 above, consists of a Base manifested by a non-classifier noun plus a classifier, and may be translated as a descriptive statement, e.g.

- o\textsuperscript{xat}\textsuperscript{2}pa\textsuperscript{4} my arm-shaped food (my-food-arm-shaped-thing),
- o\textsuperscript{xat}\textsuperscript{2}a\textsuperscript{3} my round food (my-food-round-shaped thing).

A fourth type consists of a Base manifested by a bound non-classifier stem plus one classifier from a list of possible classifiers, e.g. a\textsuperscript{2}ko\textsuperscript{3} banana.
species occurs with the following classifiers:

\[ a^2 ko^3 ba^4 \text{ banana fruit}, \ a^2 ko^3 d t^2 p^2 \text{ banana leaf}, \]
\[ a^2 ko^3 t^2 p^2 \text{ banana tree}, \ a^2 ko^3 d t^2 p^2 \text{ banana field}, \]
and \[ a^2 ko^3 d o t^2 \text{ stalk of bananas}. \]

This group of nouns seems to be limited to plants or trees.

A fifth type consists of a Base manifested by a bound non-classifier stem plus only one special classifier, e.g.

\[ ka^4 s o p^2 t a^3 \text{ star}. \]

These appear to be frozen forms, all of which are terms for celestial bodies and related phenomena.

2.2. Classifiers.

About forty classifiers have been found to date. The majority of these are monosyllabic, a few are disyllabic, and one is trisyllabic. The classifiers are divided into three groups on the basis of the allomorph which occurs when prefixed to verb forms (see 2.3.).

Group 1 classifier stems begin with /d/ (preceding oral vowel) or /n/ (preceding nasalized vowel). When occurring following any consonant, t- occurs. This group includes:

a. -da^3 \text{ seed or eye. mi}^3 r a^2 d a^3 \text{ corn seed. ka}^4 s o p^2 t a^3 \text{ star. ce}^3 k f^2 r f^3 r i k^2 t a^3 \text{ kidney.}

b. -nā^3 b f^2 \text{ nose. kak}^3 tā^3 b f^2 \text{ fox's nose.}
c. -dap\(^2\) hair or feather. \(\text{wa}^2\text{sf}^3\text{dap}^2\) bird feather, \(\text{kak}^2\text{tap}^3\) fox's hair.
d. -daw\(^2\) bone. \(\text{wij}^3\text{daw}^2\) spine, \(\text{bi}^2\text{o}^3\text{daw}^2\) tapir's bone.
e. -nfy\(^2\) tooth. \(\text{kak}^3\text{tfy}^2\) fox's tooth, \(\text{pa}^2\text{ra}^2\text{wa}^2\text{nfy}^3\) monkey's tooth.
f. -nfn\(^2\) dung. \(\text{bi}^2\text{o}^3\text{nfn}^2\) tapir's dung, \(\text{kak}^3\text{tfn}^2\) fox's dung.
g. -di\(^2\) liquid (except blood). \(\text{ka}^3\text{pe}^2\text{di}^3\) coffee (Portuguese cafe), \(\text{po}^3\text{sfn}^2\text{ti}^3\) liquid medicine. This classifier may be suffixed to the name of any fruit to indicate its juice.
h. -dip\(^2\) field (cultivated or wild vegetation).
   \(\text{a}^3\text{way}^3\text{dip}^2\) jungle, \(\text{wa}^2\text{je}^3\text{dip}^2\) field of cocoa trees, \(\text{a}^2\text{ko}^3\text{dip}^2\) field of banana trees.
i. -dín\(^2\) smoke. \(\text{ka}^4\text{bi}^2\text{dín}^2\) fog, \(\text{ka}^4\text{wi}^2\text{dín}^2\) dust, \(\text{da}^3\text{xa}^2\text{dín}^2\) fire smoke, \(\text{ka}^4\text{bi}^2\text{do}^3\text{dín}^2\) cloud.
j. -dit\(^2\) flower or blossom. \(\text{a}^2\text{ko}^3\text{dit}^2\) banana tree blossom, \(\text{mi}^3\text{si}^2\text{tít}^3\) manioc flower.
k. -dip\(^2\) leaf. \(\text{f}^3\text{wāp}^3\text{ti}^2\text{p}^2\) sting ray, \(\text{mi}^3\text{re}^2\text{o}^2\text{dip}^3\) bat, \(\text{wa}^2\text{kr}^3\text{rī}^3\text{ma}^3\text{dip}^2\)
piranha fish. pa³pe²ra³di³ paper
( portuguese papel).

1. -nõm⁴ meal. mi³sik²tõm⁴ manioc meal,
tõm⁴tõm⁴ sawdust.
m. -dot² stalk. a²ko³dot² stalk of bananas,
ti³ri²ko³dot² bale of harvested wheat
(portuguese trigo).
n. -doy² blood. bi²o³doy² tapir's blood,
kak²toy³ fox's blood.
o. -do²pa³ face. bi²o³do²pa³ tapir's face.
p. -do³ay³bi² tail. kak³to³ay³bi² fox's tail.

The following three members of this class have
unidentified morphemes, as underlined:

dop³sa⁴ egg. dop³sa⁴bi²di² egg white,
di³ko³pek² wave of water.

The other morphemes are listed in their re­
spective classes, e.g. -bi² mouth or aperture is in
class 3, -di⁻³ liquid is in class 1.

Group 2 classifier stems begin with a central
vowel or a glottal stop plus a central vowel. This
group includes:

a. -'a² head. tok²tok²a³ an owl, we³xik²a³
potato. mi²ka³a² mango (portuguese
manga).
b. -a³i³⁴ voice or speech. pa³ri³wat²a³i³⁴
stranger's speech.
c. -a³šô² upper trunk. ya³šô²pi³ša² shoulder (upper trunk-interior-round thing).

d. -fîn² joint. dap²sem²fîn³ deer's joint.

e. -šik² belly or gut (includes all hollow objects). sfîn³šik² timbo poison, i³bi³biš²šik³ hunting horn.

f. -f²rf² nail or claw. hi²hi³f²rf² monkey's claw.

This class also includes an exception to the above phonological condition:

g. -šip² wood or tree. a²ko³šip² banana tree. pi³na²šip³ fishing pole, ra²pi³šip² pencil (Portuguese lapis).

The following three members of this Group have unidentified morphemes, as underlined:

-ip³ša⁴ liver. -ak³pi²da³ back of neck, and
-a²nf'y⁴bi² ear.

Group 3 includes all other classifier stems:

a. -ba⁴ arm.⁵ ce³ne³ba⁴ wing, wa²je³ba⁴ cocoa fruit, a³ya³cat²pa⁴ woman's arm.

b. -bi² mouth or aperture. bi²o³bi² tapir's mouth.

c. -bi² finger. piy³bi² snake, ce³kř³rf³rik²pi³ vein, a³ra²mi³bi² wire (Portuguese arame).
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d. -ēn² meat or flesh. dap²sem²ēn³ deer meat.
e. -i² foot. bi²o³i² tapir's foot.
f. -i³ capsule. ta²i³ seed's capsule.
g. -i² nut. we³na²i² Brazil nut.
h. -kfm² breast. dap²sem²kfm³ deer's breast.
i. -kfy⁴ cavity. i³pi²kfy⁴ earth-hole, tfy²kfy⁴ tooth's cavity.
j. -kõ³ tongue. bi²o³kõ³ tapir's tongue.
k. -pi² interior or pain. yî-k³pi³ belly-pain, ya⁴pi² headache. yî-k³pi³di² dysentery
   (belly-pain-liquid).
l. -xe³,e² skin or hide. bi²o³xe³,e² tapir's hide.
m. i³pi² earth or ground.
n. -i³pi⁴k² shaft or ear. mi³ra²i³pi⁴k² ear of corn.

The following three members of this Group have unidentified morphemes, as underlined:

xîn³e²t̩a³,e² manioc tapioca, xîn³t̩om³ manioc gruel.

2.3. Affixation of classifiers.

The classifiers are repeated within the sentence as follows: prefixed to verb stems (transitive, intransitive, descriptive, and subject-referent), and suffixed to numerals and to demonstrative-locative stems.

2.3.1. When a classifier noun occurs as head of a
noun phrase modified by a numeral, the classifier is optionally suffixed to the numeral. A vowel-initial classifier is preceded by a glottal stop. E.g.

- two potatoes,
- two stars,
- two bananas.

2.3.2. When a classifier noun occurs as subject of an intransitive, subject referent or descriptive verb, or as object of a transitive verb, the classifier is prefixed to the verb stem. Prefixes to transitive, intransitive, and descriptive verbs, the initial d-/n- of group 1 classifiers is replaced by t-; and the initial vowel or initial glottal stop of group 2 classifiers is preceded or replaced by y-.

Prefixes to transitive and intransitive verbs, group 3 classifiers are preceded by si-; prefixed to descriptive verbs by i-. Prefixed to subject-referent verbs, group 3 classifiers are followed by -e-.

Examples:

- the butterfly alighted (butterfly it-classifier-alighted),
- the coffee is hot (coffee-classifier-hot),
- the potato fell down (potato-classifier it-classifier-fell),
- he ate two bananas (two-classifier banana-classifier he-classifier-ate),
- the palm leaf floated (palm-leaf it-subject-referent-classifier-floated).
2.3.3. Classifiers are suffixed to demonstrative-locative constructions, e.g.

\[ i^3ja^3ba^2 a^2ko^3ba^4 \text{ that banana, } ja^3ba^2ki^3 \text{ the banana over there, } ja^3di^2p^2ti^3 'ot^2pe^3ki^3 \text{ below that leaf-like object, } ja^3di^2ki^3 ka^3pe^2di^3 \text{ that is coffee.} \]

3. Repeated morphs within the paragraph.

3.1. The first time a complex classified noun occurs in a paragraph the full form of the noun occurs, e.g. \( a^2ko^3^4 \text{ banana}. \) Whenever reference is made within the same paragraph to this entity a pro form of the noun occurs. This generally consists of a prefixed person marker and the final classifier of the full form in question, e.g.

\[ i^3ba^4 \text{ arm-shaped thing, } ya^4 \text{ round thing, } ta^2 \text{ seed-shaped thing.} \]

In other cases the pro form may consist of the same classifier modified or amplified so as to give additional information regarding the entity. This is described as an amplified pro form and consists of a person marker and a classifier (the one in question), a descriptive verb stem, a nominalizer, and the same classifier suffixed, e.g.

\[ i^3ba^4be^2ren^2at^2pa^4 \text{ a long banana.} \]
The chart below indicates the forms of the pro forms for the three groups of classifiers.

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>pro form/prefix</td>
<td>init. d/n→t</td>
<td>prefix y-</td>
</tr>
<tr>
<td>suffix of amplified pro form</td>
<td>init. d/n→t</td>
<td>init v →'v</td>
</tr>
</tbody>
</table>

The following examples illustrate the use of these pro forms:

- $a^2k_3o^3b_4$ $o^3_{s^2}b_2a^2_{i^1}k^3$ / $i^3b_4$ $o^3_{s^2}b_2a^2_{o^3}$
  (banana he-arm-shaped-thing-took/ pro-form-of-arm-shaped-items he-arm-shaped-thing-ate).
- $i^3_k{a^2}$ $o^3_ya^2_jo^2_{jo^2}$ / $y^3a^2b^2ren^2_{at^2}a^3$
  o^3ya^2jo^2jo^2 (house he-round-thing-saw/amplified pro form (round-thing-tall-nominalizer-round-thing) he-round-thing-saw).
- $m^3s^2d_{a^3}$ $o^3_{ta^2_{i^1}k^3}$ / $ta^3$ $o^3_{ta^2_{m̄^3}i^3ki^3}$ $b^2$
  (corn-seed-shaped-thing he-seed-took/ seed-shaped-thing (pro form) he-seed-placed his-field in).

3.2. The following hypothetical data illustrates the various constructions described in this paper. The numbered items illustrate the following:

- 1, 12: a full form of the noun banana; 2, 4: affixation of a classifier morph to a numeral; 3: affixation to a descriptive verb; 5, 13, 14: affixation to a transitive verb; 6, 8: affixation
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to an intransitive verb; 7: a pro form; 9: an amplified pro form; 10: affixation to a subject-referent verb; 11: affixation to a demonstrative-locative.

1
\[ o'^3\text{ji}^2 \ a^2\text{ko}^3\text{ba}^4 \ \text{bi-m}^2 \]
he-went banana to-get
He went to get bananas.

2
\[ \text{xep}^3 \text{xep}^2\text{pa}^4 \ \text{kay}^2 \ \text{o}^3\text{e}^2 \]
two-class want past
He wanted two bananas.

3
\[ \underline{\text{i}^3\text{ba}^4} \ \text{ri-m}^2 \ \text{o}^3\text{e}^2 \ \text{ip}^2 \]
cl. ripe past they
The bananas were ripe.

4
5
\[ \text{xep}^3 \text{xep}^2\text{pa}^4 \ \text{o}^3\text{s}^2\text{ba}^2'\text{ik}^3 \]
two cl. he-class took
He took two bananas.

6
7
\[ \text{o}^3\text{si}^2\text{ba}^2'\text{at}^3 \ \underline{\text{i}^3\text{ba}^4} \ \text{ik}^2 \ \text{pi}^3\text{je}^2 \]
he-class fell class take when
The banana fell when he took it.

8
9
\[ \text{o}^3\text{si}^2\text{ba}^2'\text{at}^3 \ \text{i}^3\text{di}^3\text{bi}^3 \ \text{be}^2 \ \underline{\text{i}^3\text{ba}^4} \ \text{rim}^2\text{at}^2\text{pa}^4 \]
he-class fell water in class-ripe-nom-class
The banana fell in the water—the ripe banana.
The banana didn't float.

That's my banana, he said.

He took the banana from the water.

He ate the banana. He left.

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1. Mundurukú is a Tupí language as classified by Norman A. McQuown, "The Indigenous Languages of Latin America", American Anthropologist, Vol. 57, No. 3, June 1955, pp. 501-570, and by Dr. Aryon D. Rodrigues, "Classification of Tupí-Guarani", International Journal of American Linguistics, Vol. 24, No. 3, July 1958. It is spoken by about 1500 persons living on the upper Tapajós River and its tributaries Das Tropas, Cabitutú, Cururú and São Manoel in the state of Pará, Brazil. Very few of these Mundurukú speak Portuguese. There is, however, another group of some 350 who live north of the principal location of the tribe, on the Canumã
River in the state of Amazonas. These speak Portuguese in their homes and only eight adults still speak Mundurukú. Field work was carried out under the auspices of the Summer Institute of Linguistics and the Museu Nacional of Rio de Janeiro in 1961-62 among the Canumã river group, and since then in the other areas of the tribe. This paper is based on the Cururú river dialect. I acknowledge gratefully help received from Sarah Gudschinsky, Robert Meader, Irvine Davis and Eunice Burgess, all of the Summer Institute of Linguistics. My principal informant was Solano-kirixi, a man of about 50 years of age.

2. The consonant phonemes of Mundurukú number seventeen and contrast as to four modes of articulation: stops, fricatives, nasals and liquids. The stops contrast as to voiceless and voiced. The voiceless stops contrast as to five points of articulation: bilabial /p/, alveolar /t/, alveo-palatal /c/, velar /k/, and glottal /ʔ/. The voiced stops contrast as to three points of articulation: bilabial /b/, alveolar /d/, and alveo-palatal /j/. The fricatives contrast as to three points of articulation: alveolar /s/, alveopalatal /ʃ/, and glottal /h/. The nasals contrast as to three points of articulation: bilabial /m/, alveolar /n/, and velar /ñ/ (ŋ). The liquids contrast as to three points of articulation: bilabial /w/, alveopalatal flap /ɾ/ and palatal /j/. The vowel phonemes number ten, five of which are oral and five are the nasalized counterparts. Each set, oral and nasalized, contrast as to front, central and back tongue positions, and high and low tongue heights: high front /i/, high central /iː/, high back (o), low front /e/, low central /a/. Each syllable occurs with one of four accents: 1 high tone, 2 mid
tone, 3 low tone, and 4 laryngealization.

3. Word-final /t/ is always lost preceding the plural suffix -yf³.

4. Tone 2 is given as the basic tone of -nfy. However, when a suffix with tone 2 occurs following a stem-final syllable with tone 2, the second perturbs to tone 3, except where the suffix is vowel-initial, e.g. pa²ra²wa² plus -nfy² becomes pa²ra²wa²nfy³.

5. /b/ becomes /p/ following consonants and semi-vowels.

6. Earth occurs only as a free noun i¹³pi², but is included in the list of classifiers because it affixes to numbers, demonstrative-locatives and verbs.

7. The allomorphs of stop-initial classifier stems are phonologically conditioned. A voiced stop occurs following vowels; a voiceless stop following consonants. Group 2 classifiers have no allomorphic variations. All numbers are consonant-final.

8. The classifiers replace certain morphemes which differ according to verb types. The description of Mundurukú verbs is dealt with more fully in an as yet unpublished grammar paper. Affixation occurs only when the verb is in the single event or the repeated event form (see 1.6.1.).

9. Demonstrative-locative stems function as demonstratives with the demonstrative-orienter prefix i- (e.g. i³ja³ that) and as locatives with the locative-orienter suffix -ki (e.g. ja³ki² over there).

10. This does not apply if there are two classifier nouns belonging to the same class within one paragraph. In fact, however, this seldom, if ever, happens.