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NUMERALS AND DEMONSTRATIVES IN KADIWÉU

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0. Introduction.

Numerals and Demonstratives have variant forms in Kadiwéu.¹ The purpose of this paper is to describe these variations and propose rules governing their appearance. Linguistic work was commenced in 1968 and the material used for analysis has been collected at various periods up to the present time from a variety of speakers of both sexes.

1. Numerals.

1.0 General

The numerals one, two, and three have variant forms. Higher numbers do not exhibit any form variation.

¹Kadiwéu is an unclassified Indian language found in the south-west of Mato Grosso State in Brazil. There are about 450 speakers of the language. The phonemes of the language are p, t, c, k, b, d, g, ɣ, l, m, n, x, j, w, y; i, e, a, o. c and g are unvoiced and voiced velar stops, k and ɣ are their uvular counterparts. Research for this paper was done under the auspices of the Summer Institute of Linguistics in contractual cooperation with the Museu Nacional, Rio de Janeiro, and the Fundação Nacional do Índio.

1.1 Variant forms

1.1.1 Numeral one

1.1.1.0 The forms show grammatical agreement with the accompanying nouns according to gender and semantic agreement according to position or direction of motion. The Noun class is divided according to gender into masculine and feminine classes, but the nouns are not overtly marked for gender. The numeral one is tabled below under 1.1.1.3.

1.1.1.1 Structure

The numeral one consists of two stable forms which enclose two affixes between them. The first affix (Aff. g) marks gender, and the second affix (Aff. p) marks position or direction of motion. These two affixes operate independently of one another.

This numeral may be designated by the formula

o - (Aff. g) - (Aff. p) - teci

1.1.1.2 Affix tables.

Affix g

-ni- 'masculine'

-na- 'feminine'

Affix p

The forms of affix p may be divided into static and dynamic as shown in the following table.

Static forms

- (a) -da- denotes something vertical;
human standing, trees growing;
animal or bird suspended; etc.
- (b) -ni- denotes human seated, crops growing;
four-legged animal standing, etc.
- (c) -di- denotes something horizontal;
human lying down, animal lying down;
crops or trees cut down;
reptile or fish; etc.

Dynamic forms

- (d) -jo- denotes something going away or being
carried away.
- (e) -na- denotes something approaching or being
brought.

Nouns which do not seem immediately to fall into one of the static categories above often come under (b). For instance, sun, moon, stars would come under (b). However, water would be considered as something horizontal and come under category (c), unless it was in a tall container, in which case it would be included under category (a). A year is considered as coming or going and the corresponding dynamic form is employed.

1.1.1.3 Numeral one table

Affix p category

	(a)	(b)	(c)	(d)	(e)
masculine	<u>onidateci</u>	<u>oniniteci</u>	<u>oniditeci</u>	<u>onijoteci</u>	<u>oninateci</u>
feminine	<u>onadateci</u>	<u>onaniteci</u>	<u>onaditeci</u>	<u>onajoteci</u>	<u>onanateci</u>

1.1.1.4 Examples

- (a) oniniteci necenigo 'one dog'
- (b) jinadi onadateci iwaalo 'I see one woman'
- (c) onanateci iwaalo enagi 'One woman is coming'

1.1.2 Numeral two

1.1.2.0 The variations in form of numeral two are more restricted than for one. They do not demonstrate agreement according to gender, nor the dynamic sense of direction, but only according to the static sense of position.

1.1.2.1 Structure

The numeral two consists of two stable forms which enclose an affix (Aff. p¹) denoting position. This affix has the same meaning and similar phonological shape to the static forms of affix p in numeral one. (1.1.1.2)

Numeral two may be designated by the formula

i - (Aff. p¹) - wataale

1.1.2.2 Affix p¹ table

- (a) -to- 'vertical'*
- (b) -ni- 'seated'
- (c) -ti- 'horizontal'

*for more complete meanings, see 1.1.1.2.

If the situation includes the same subject in two differing positions, the unmarked form is used. The unmarked form is the form considered normal to the subject without reference to a particular situation. For instance, a man is considered as category (a) unless seated or lying down (a particular situation), thus the unmarked form is (a) for 'man.' In a situation with both masculine and feminine genders present, the masculine is the unmarked form and takes precedence.

1.1.2.3 Numeral two table

Aff. p ¹ category	Numeral <u>two</u>
(a)	<u>itowataale</u>
(b)	<u>iniwataale</u>
(c)	<u>itiwataale</u>

1.1.2.4 Examples

- (a) iniwataale necexodi 'two dogs'
- (b) itiwataale necexodi niótaga 'the two dogs are sleeping'
- (c) itowataale laponiale 'two trees'
- (d) jayakagidi itiwataale laponiale 'he has cut down two trees'

1.1.3 Numeral three

1.1.3.0 The variant forms for numeral three show agreement with the noun only with respect to 'position' (the static form) as in the case of numeral two.

1.1.3.1 Structure

Numeral three consists of a stable form succeeded by an affix (Aff. p¹), a second stable form, and finally by another affix (Aff. p). It may be designated by the formula.

i - (Aff. p¹) - wataadgi - (Aff. p)

These affixes are already listed above: affix p¹ under 1.1.2.2, and affix p under 1.1.1.2. Affix p is limited in its appearance to the static forms.

1.1.3.2 Numeral three table

Affix category	Numeral form
(a)	<u>itowataadgida</u>
(b)	<u>iniwataadgini</u>
(c)	<u>itiwataadgidi</u>

1.1.3.3 Examples

(a) itowataadgida iwaalepodi 'three women'

(b) itiwataadgidi iwaalepodi nalokonaga 'three

women are swimming'

1.2 Non-variant forms

1.2.0 Numerals above three do not vary in form. There are certain significant gaps in the numeral system, and the Portuguese equivalent has been borrowed in these cases and assimilated according to the phonemic structure of Kadiwéu. Borrowed words are indicated below by an asterisk.

1.2.1 Numerals four to ten inclusive

*goatolo		'four'
nigotino	gobagadi	'five'
end	our hand	
dibatiogi	gobagadi	'six'
finger		
itowataa-dibatiogi	gobagadi	'seven'
two	fingers	
*oito		'eight'
*noobi		'nine'
nigotini	gobagatedi	'ten'
end plural	hands	

1.2.2 Numerals eleven to nineteen inclusive

1.2.2.1 Numeral fifteen

This is considered first, being a special case:

nigotino	godogonagi	'fifteen'
end	our foot	

It appears that after the ten digits of the hand are

on - oko - ticgo
one person

(b) oko itowata modigo(tini) 'forty'
person two end plural

(c) oko itowatagidaga modigo(tini) 'sixty'
person three end plural

(d) oko goatolo modigo(tini) 'eighty'
person four end plural

Small variations of these forms have been encountered. A feature of Kadiwêu is that word-final syllables are often dropped or modified slightly, particularly in rapid speech.

1.2.3.2 Combination examples

(a) oko itowata modigotini ngigo gobagatedi goneleegiwadi
person two end plural go more hands men
'fifty men'

(b) onokoticgo digo ngigo gobagatedi ngigo iniwataale necexodi
person end go more hands go more two dogs
'thirty-two dogs'

1.2.4 Numeral hundred

taalia 'hundred'

This numeral does not fit the phonemic pattern of Kadiwêu and is probably the Portuguese word talha.

talha may denote a jar of large capacity, an ancient measure of salt, or a number of firewood bundles. All these meanings could well fit into the cultural background, the general sense being a fairly large measure.

1.3. Comment

1.3.1 Some of the above combinations are cumbersome in usage. Due to the increasing necessity of exact numbering (counting money, etc.) there is an increasing tendency to use Portuguese numerals.

1.3.2 Further information on loan-word assimilation

Initial sounds in Kadiwẽu are voiced. r does not appear in Kadiwẽu, the nearest phoneme equivalent being l. CC combinations do not generally occur, exceptions being with nasals and the combination Cg.

Hence the word for "four," which is 'quatro' in Portuguese, becomes goatolo.

2. Demonstratives

2.0 General

Demonstratives have forms which vary in a manner similar to the Numerals. There is no distance component such as that found in English or Portuguese in the meaning of Kadiwẽu demonstratives. Gender and position or direction are marked as in the case of the Numerals.

2.1 Structure

2.1.1 Description and formula

The Demonstrative is formed by a stem followed by optional pluraliser and/or diminutive affixes. The stem

is a co-ordinative construction composed of a gender morpheme followed by a position/direction morpheme. The latter is identical in form to the corresponding numeral affix (Aff. p) and the former differs from the numeral affix (Aff. g) by the insertion of -g-.

The pluraliser is optional only in the sense that the accompanying noun may be singular or plural. If the noun is a plural form, the demonstrative must agree with this.

The Demonstrative may be diagrammed

+ Gender (Aff. G) + Position/Direction (Aff. p) + Pluraliser
+ Diminutive.

The Gender morpheme (Aff. G) has the following forms

ngi- 'masculine'

nga- 'feminine'

The Position/Direction morpheme (Aff. p) is listed ~~XXXX~~ under 1.1.1.2.

The Pluraliser affix is -wa

The Diminutive affix is -da

2.1.2 Limitations

When the pluraliser -wa is present:

- (a) distinctions amongst 'static' forms are neutralised to -di
- (b) only the masculine gender morpheme ngi- appears.

2.1.3 Agreement

2.1.3.1 Within the Demonstrative

A stem vowel a preceding the pluraliser -wa or diminutive

-da dissimilates, a becoming o (2.2 vi). If the diminutive and the pluraliser are present, both the stem and pluraliser vowels a dissimilate, a becoming o (2.2 vii).

2.1.3.2 Within the Nominal Phrase

As previously mentioned, the Noun class is divided into two sub-classes according to gender. An accompanying Demonstrative agrees with the Noun head within the limitations described under 2.1.2. It also agrees according to the dynamic and static states previously described (1.1.1.2). The demonstrative still shows agreement if it stands in place of a noun as head of the nominal phrase.

2.1.3.3 Between Phrases

There is agreement between the head of the Nominal phrase acting as subject (actor) and the head of the Verbal phrase. (Passive verb forms do not appear in Kadiwēu.) The agreement is according to number and position/direction and is marked by the form of the Verb and of the components of the Nominal phrase. Locational senses such as into, on, away from, etc., are marked in Verb as suffixes. There is no agreement between the Nominal phrase functioning as object and the Verbal phrase.

e.g. (a) noditice ngijo goneleegiwa godigeladi
is leaving this man our house

'This man is leaving our house'

-tice is the verbal suffix 'away from'

(b) ngidi necenigo nicotinigi niogodi
this dog is sitting in water

'This dog is sitting in the water'

-tinigi is the verbal suffix 'in.'

2.1.4 Diminutive

The diminutive -da may carry an undertone of endearment and is often used in relation to children, speaking to children, or speaking about something loved.

2.2 Examples

- (i) ngida goneleegiwa 'this man (standing)'
(ii) ngadi iwaalo 'this woman (lying down)'
(iii) ngidiwa wetiadi 'these stones (feminine)'
(iv) ngidida iwoogo 'this little stick'
(v) ngijowa apolicganga igotibeci 'these horses are going away'
(vi) nginowa iwaalepodi enagitibeci 'these women are coming'
(vii) ngidowoda nigaanigipawaanigi 'these dear/little children (standing)'

3. Appendix

Ancient forms of numerals and demonstratives have been encountered. These are little used nowadays, and when used they chiefly refer to the past or the dead.

In this usage, the main differences are that -na

(1.1.1.2(e) becomes -noa, and limitation (a) under 2.1.2 does not appear.

It may be possible at a later date to produce a paper dealing particularly with ancient forms of Kadiwêu and modern usage.

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