Appendix

Murrinhpatha finite verb inflection paradigms

This appendix illustrates the inflectional paradigms of all 39 finite verbs in Murrinhpatha (Table 1). Each paradigm is illustrated with the complete forms of inflectional exponence, together with a segmented analysis of the *intersecting formatives* that make up the exponence. A description of this phenomenon is provided in Mansfield, John (2016), Intersecting formatives and inflectional predictability, *Word Structure* 9(2): 183–214.

Inflected verb forms that share the same number and tense categories, and differ only in person category (e.g. 1SG.NFUT, 2SG.NFUT, 3SG.NFUT) are usually differentiated only by their prefix consonant. Where this is the case, the first person formative segmentation is given in full, while for second and third persons only the prefix consonant is segmented.

Note that three verbs, /ma/ "do, say", /ba/ AFFECT, and /ma/ "use hands" each have two distinct inflectional paradigms. "Pseudo-verbs", i.e. those that lack a clear lexico-semantic meaning, are given arbitrary labels in small capitals such as /bu/ LOWER, reflecting weak patterns of meaning found among the compound verbs in which they occur.

The inflectional paradigms illustrated here were originally documented by Walsh (1976) and Street (1987). An improved presentation format is provided by Blythe et al. (2007). The inflectional analysis presented here draws on all these sources, but is not identical to any of them. Numbering of inflectional paradigms is not consecutive, nor is it meaningful; rather, it follows numbering established in Blythe et al (2007), with some divergences imposed by differences of analysis.[1]

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[1] Divergences of my paradigm numbers from the numbering in Blythe et al (2007) are as follows: VIII = 8, 13; X = 10, 11, 12, 15, 16. I analyse /ma/ "do, say" and /ma/ "use hands" as two homophonous verbs, whereas previous works have analysed them as a single, polysemous verb.

Similarly /ø/ PIERCE and /ø/ "use mouth". While I analyse /ma/ "do", /ba/ AFFECT and /ma/ "use hands" as having two inflectional patterns each, previous works have treated each of these as a pair of two separate verbs (respectively 8+34, 13+14, 8+9). All these differences follow from the current analysis of verb stems and inflections, as opposed to previous analyses of the an unsegmentable "classifier stem" (see main text).

Base verb	Inflectional paradigm		Reflexive/reciprocal verb
/ø/ "sit"	I		
/ø/ "lie"	II		
/ra/ "stand"	III		
/ni/ "be"	IV		
/nṯa/ "perch"	V		
/ru/ "go"	VI		
/nu/ "use feet"	VII	XXXVIII	/ni/ "use feet RR"
/mu/ COERCE	XI		
/bu/ LOWER	XVII	XVIII	/buj/ LOWER.RR
/ø/ "use mouth"	XIX	XXI	/ø/ "use mouth RR"
/ø/ PIERCE			/ø/ PIERCE.RR
/ø/ "appear"	XX		
/nṯi/ "carry"	XXII		
/ø/ ARC	XXIII	XXIV	/ø/ ARC.RR
/ŋa/ "put together"	XXV		
/la/ "wipe"	XXVI	XXXVII	/li/ "wipe RR"
/na/ "use fire"	XXVII		
/ɾa/ "watch"	XXVIII	XXXVI	/ɾi/ "watch RR"
/ɖu/ IMPEL	XXIX	XXX	/ɖi/ IMPEL.RR
/la/ "consume"	XXXI		
/ŋu/ "push"	XXXII	XXXIII	/ŋi/ "push RR"
/nṯa/ "crouch"	XXXV		
/ba/ AFFECT	XIV	X	/be/ AFFECT.RR
/ma/ "use hands"	VIII / IX		/me/ "use hands RR"
/ma/ "do, say"	XXXIV		/me/ "do, say RR"
/mi/ "look"	X		
/bi/ "hear"	X		
TOTAL 27 VERBS	TOTAL 34 UNIQUE PARADIGMS		TOTAL 12 VERBS

Table 1. Finite verbs. Shading indicates verbs that have more than one inflectional paradigm, and verbs that share an inflectional paradigm.

/ø/ 'sit'
Paradigm: I

STEM: /ø/   DEFAULT
        /ri/   C:RHOTIC
        /ju/   C:J (SUPPLETIVE), VH:BACK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋem	ŋi	ŋini	ŋini
		ŋ-e-[DEF]-m	ŋ-i-[DEF]-ø	ŋ-i-[DEF]-ni	ŋ-i-[DEF]-ni
	2	ṭim	ṭi	ṭini	ṭini
		ṭ-i-[DEF]-m	ṭ-…	ṭ-…	ṭ-…
	3	dim / kem	ki/ pi	dini	dini
		d-i-[DEF]-m / k-e-[DEF]-m	k-… / p-…	d-…	d-…
INCL	1	ṭim	pi	ṭini	ṭini
		ṭ-i.[DEF].m	p-i.[DEF].ø	ṭ-i-[DEF]-ni	ṭ-i-[DEF]-ni
PL	1	ŋarim	ŋuju	ŋarini	ŋarini
		ŋ-a-[RHOT]-m	ŋ-u-[J.BACK]-ø	ŋ-a-[RHOT]-ni	ŋ-a-[RHOT]-ni
	2	nirim	nuju	nirini	nirini
		n-i-[RHOT]-m	n-…	n-i-[RHOT]-ni	n-i-[RHOT]-ni
	3	pirim / karim	kuju / puju	pirini	pirini
		p-i-[RHOT]-m / k-a-[RHOT]-m	k-… / p-…	p-i-[RHOT]-ni	p-i-[RHOT]-ni
PC	1		ŋe	ŋarine	ŋarine
			ŋe.[DEF].ø	ŋ-a-[RHOT]-ne	ŋ-a-[RHOT]-ne
	2		ne	nirine	nirine
			n-…	n-i-[RHOT]-ne	n-i-[RHOT]-ne
	3		ke / pe	pirine	pirine
			k-… / p-…	p-i-[RHOT]-ne	p-i-[RHOT]-ne

/ø/ 'lie'
Paradigm: II

STEM: /ø/   DEFAULT
        /ri/   C:RHOTIC
        /ju/   C:J (SUPPLETIVE) , VH:BACK
        /bi/   C:B (SUPPLETIVE)

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋabim	ŋu	ŋu	ŋuŋi
		ŋ-a-[B]-m	ŋ-i-[DEF]-ø	ŋ-u-[DEF]-ø	ŋ-u-[DEF]-ŋi
	2	ṭibim	ṭu	ṭu	ṭuŋi
		ṭ-i-[B]-m	ṭ-…	ṭ-…	ṭ-…
	3	jibim / kabim	ku/ pu	ju	juŋi
		j-i-[B]-m / k-a-[B]-m	k-… / p-…	d-…	j-…
INCL	1	ṭibim	pu	ṭu	ṭuŋi
		ṭ-i.[DEF].m	p-i.[DEF].ø	ṭ-u-[DEF]-ø	ṭ-u-[DEF]-ŋi
PL	1	ŋarim	ŋuju	ŋarini	ŋarini
		ŋ-a-[RHOT]-m	ŋ-u-[J.BACK]-ø	ŋ-a-[RHOT]-ni	ŋ-a-[RHOT]-ni
	2	nirim	nuju	nirini	nirini
		n-i-[RHOT]-m	n-…	n-i-[RHOT]-ni	n-i-[RHOT]-ni
	3	pirim / karim	kuju / puju	pirini	pirini
		p-i-[RHOT]-m / k-a-[RHOT]-m	k-… / p-…	p-i-[RHOT]-ni	p-i-[RHOT]-ni
PC	1		ŋe	ŋarine	ŋarine
			ŋe-[DEF]-ø	ŋ-a-[RHOT]-ne	ŋ-a-[RHOT]-ne
	2		ne	nirine	nirine
			n-…	n-i-[RHOT]-ne	n-i-[RHOT]-ne
	3		ke / pe	pirine	pirine
			k-… / p-…	p-i-[RHOT]-ne	p-i-[RHOT]-ne

		/ra/ 'stand' Paradigm: III	STEM:	/ra/ DEFAULT
				/ri/ VH:HIGH, VF:FRONT
				/ɻa/ C:GEMINATE
				/ɻi/ C:GEMINATE, VH:HIGH, VF:FRONT
				/bi/ C:B (SUPPLETIVE), VH:HIGH, VF:FRONT
				/ø/ C:WEAK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	**1**	ŋarim	ŋira	ŋiri	ŋiraŋi
		ŋ-a-[HIGH,FRONT]-m	ŋ-i-[DEF]-ø	ŋ-i-[HIGH,FRONT]-ø	ŋ-i-[DEF]-ŋi
	2	ṯirim	ṯira	ṯiri	ṯiraŋi
		ṯ-i-[HIGH,FRONT]-m	ṯ-…	ṯ-…	ṯ-…
	3	pirim / karim	kira / pira	piri	piraŋi
		p-i-[HIGH,FRONT]-m / k-…	k-… / p-…	p-…	p-…
INCL	**1**	ṯirim	pira	piri	ṯiraŋi
		ṯ-i-[HIGH,FRONT]-m	p-i-[DEF]-ø	p-i-[HIGH,FRONT]-ø	ṯ-i-[DEF]-ŋi
PL	**1**	ŋibim	ŋiɻa	ŋi	ŋiɻaŋi
		ŋ-i-[B,HIGH,FRONT]-m	ŋ-i-[GEM]-ø²	ŋ-i-[WEAK]-ø	ŋ-i-[GEM]-ŋi
	2	nibim	niɻa	ni	niɻaŋi
		n-…	n-…	n-…	n-…
	3	pibim / kibim	kiɻa / piɻa	pi	piɻaŋi
		p-… / k-…	k-… / p-…	p-…	p-…
PC	**1**		ŋiɻa	ŋe	ŋiɻaŋi
			ŋ-i-[GEM]-ø	ŋ-e-[WEAK]-ø	ŋ-i-[GEM]-ŋi
	2		niɻa	ne	niɻaŋi
			n-…	n-…	n-…
	3		kiɻa / piɻa	pe	piɻaŋi
			k-… / p-…	p-…	p-…

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² /ɾ → ɻ/ is analysed as a gemination pattern by Green (2003, p. 143). This may have more of a historic than a synchronic motivation, according to which we could posit the /ɻ/ stems in this verb as synchronically suppletive.

| | | /ni/ 'be'
Paradigm: IV | STEM: | /ni/ DEFAULT
/na/ VH:LOW, VF:BACK
/ṇi/ C:RN (SUPPLETIVE)
/ṇe/ C:RN (SUPPLETIVE), VH:LOW
/ṇa/ C:RN (SUPPLETIVE), VH:LOW, VF:BACK
/ḍi/ C:RD (SUPPLETIVE)
/ḍe/ C:RD (SUPPLETIVE), VH:LOW | | |

		NFUT (/PRSL)		IRR (/FUT)	PST	PSTIRR
SG	1	ŋanam		ŋani	ŋaḍi	ŋani
		ŋ-a-[LOW,BACK]-m		ŋ-a-[DEF]-ø	ŋ-a-[RD]-ø	ŋ-a-[DEF]-ø
	2	ṭanam		ṭani	ṭaḍi	ṭani
		ṭ-…		ṭ-…	ṭ-…	ṭ-…
	3	kanam / kanam		kani / pani	paḍi	kani
		k-… / k-…		k-… / p-…	p-…	k-…
INCL	1	ṭanam		pani	paḍi	ṭani
		ṭ- a-[LOW,BACK]-m		p-a-[DEF]-ø	p-a-[RD]-ø	ṭ-a-[DEF]-ø
PL	1	ŋaṇam[3]		ŋaṇi	ŋaḍi	ŋaṇi
		ŋ-a-[RN,LOW,BACK]-m		ŋ-a-[RN]-ø	ŋ-a-[RD]-ø	ŋ-a-[RN]-ø
	2	naṇam		naṇi	naḍi	naṇi
		n-…		n-…	n-…	n-…
	3	paṇam / kaṇam		kaṇi / paṇi	paḍi	kaṇi
		p-… / k-…		k-… / p-…	p-…	k-…
	PC 1			ŋaṇe	ŋaḍe	ŋaṇe
				ŋ-a-[RN,LOW]-ø	ŋ-a-[RD,LOW]-ø	ŋ-a-[RN,LOW]-ø
	2			naṇe	naḍe	naṇe
				n-…	n-…	n-…
	3			kaṇe / paṇe	paḍe	kaṇe
				k-… / p-…	p-…	k-…

[3] The retroflex /ṇ/ in PL stems, as opposed to apical /n/ in SG stems, is not produced by all speakers. Younger speakers especially tend to realise the pl stem instead with a geminate consonant.

/n̪ta/ 'perch'
Paradigm: V

STEM: /ṉṯa/ DEFAULT
/ṉṯi/ VH:HIGH, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋaṉṯim	ŋiṉṯa	ŋiṉṯaṉi	ŋiṉṯaṉi
		ŋ-a-[FRONT,HIGH]-m	ŋ-i-[DEF]-ø	ŋ-i-[DEF]-ṉi	ŋ-i-[DEF]-ŋi
	2	ṯiṉṯim	ṯiṉṯa	ṯiṉṯaṉi	ṯiṉṯaṉi
		ṯ-i-[FRONT,HIGH]-m	ṯ-...	ṯ-...	ṯ-...
	3	piṉṯim / kaṉṯim	kiṉṯa / piṉṯa	piṉṯaṉi	piṉṯaṉi
		p-i-... / k-a-...	k-... / p-...	p-...	p-...
INCL	1	ṯiṉṯim	piṉṯa	ṯiṉṯaṉi	ṯiṉṯaṉi
		ṯ-i-[FRONT,HIGH]-m	p-i-[DEF]-ø	ṯ-i-[DEF]-ṉi	ṯ-i-[DEF]-ŋi
PL	1	ŋaṉṯim	ŋiṉṯa	ŋiṉṯaṉi	ŋiṉṯaṉi
		ŋ-a-[FRONT,HIGH]-m	ŋ-i-[DEF]-ø	ŋ-i-[DEF]-ṉi	ŋ-i-[DEF]-ŋi
	2	niṉṯim	niṉṯa	niṉṯaṉi	niṉṯaṉi
		n-i-[FRONT,HIGH]-m	n-...	n-...	n-...
	3	piṉṯim / kaṉṯim	kiṉṯa / piṉṯa	piṉṯaṉi	piṉṯaṉi
		p-i-... / k-a-...	k-... / p-...	p-...	p-...
PC	1		ŋiṉṯa	ŋiṉṯaṉe	ŋiṉṯaṉe
			ŋ-i-[DEF]-ø	ŋ-i-[DEF]-ṉe	ŋ-i-[DEF]-ŋe
	2		niṉṯa	niṉṯaṉe	niṉṯaṉe
			n-...	n-...	n-...
	3		kiṉṯa / piṉṯa	piṉṯaṉe	piṉṯaṉe
			k-... / p-...	p-...	p-...

/ɾu/ 'go'
Paradigm: VI

STEM: /ɾu/ DEFAULT /ra/ LOW
/ʈu/ GEMINATE /ri/ FRONT
/ø/ WEAK /je/ J (SUPPL), FRONT, LOW
/ji/ J (SUPPLETIVE), FRONT
/mpa/ MP (SUPPLETIVE), LOW

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋuran	ŋuru	ŋurini	ŋuri
		ŋ-u-[LOW]-n	ŋ-u-[DEF]-ø	ŋ-u-[FRONT]-ni	ŋ-u-[FRONT]-ø
	2	ṯuran	ṯuru	ṯurini	ṯuri
		ṯ-...	ṯ-...	ṯ-...	ṯ-...
	3	wuran / kuran	kuru / puru	wurini	wuri
		w-... / k-...	k-... / p-...	w-...	w-...
INCL	1	ṯuran	puru	ṯurini	ṯuri
		ṯ-u-[LOW]-n	p-u-[DEF]-ø	ṯ-u-[FRONT]-ni	ṯu-[FRONT]-ø
PL	1	ŋumpan	ŋuʈu	ŋuṉi	ŋuji
		ŋ-u-[MP,LOW]-n	ŋ-u-[GEM]-ø	ŋ-u-[WEAK,FRONT]-ṉi	ŋ-u-[J,FRONT]-ø
	2	numpan	nuʈu	nuṉi	nuji
		n-...	n-...	n-...	n-...
	3	pumpan / kumpan	kuʈu / puʈu	puṉi	puji
		p-... / k-...	k-... / p-...	p-...	p-...
PC	1	ŋa		ŋuṉe	ŋuje
		ŋ-a-[WEAK]-ø		ŋ-u-[WEAK,FRONT]-ṉe	ŋ-u-[J,FRNT,LOW]-ø
	2	na		nuṉe	nuje
		n-...		n-...	n-...
	3	ka / pa		puṉe	puje
		k-... / p-...		p-...	p-...

/nu/ 'use feet'
Paradigm: VII

STEM:
/nu/	DEFAULT	/nnu/	C:GEMINATE
/ni/	VF:FRONT	/nni/	C:GEM, VF:FRONT
/nuj/	VF: OFFGLIDE	/nna/	C:GEM, VH: LOW
/na/	VH: LOW	/nne/	C:GEM, VH: LOW, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋunuŋam	ŋunu	ŋuna	ŋuni
		ŋ-u-[DEF]-ŋam	ŋ-u-[DEF]-∅	ŋ-u-[LOW]-∅	ŋ-u-[FRONT]-∅
	2	ṭunuŋam	ṭunu	ṭuna	ṭuni
		ṭ-…	ṭ-…	ṭ-…	ṭ-…
	3	nuŋam / kunuŋam	kunu / punu	na[4]	nuj
		∅-… / k-…	k-… / p-…	∅-…	∅-u-[OFFGLIDE]-∅
INCL	1	ṭunuŋam	punu	ṭuna	ṭuni
		ṭ-u-[DEF]-ŋam	p-u-[DEF]-∅	ṭ-u-[LOW]-∅	ṭ-u-[FRONT]-∅
PL	1	ŋunnuŋam	ŋunnu	ŋunni	ŋunni
		ŋ-u-[GEM]-ŋam	ŋ-u-[GEM]-∅	ŋ-u-[GEM,FRONT]-∅	ŋ-u-[GEM,FRONT]-∅
	2	nunnuŋam	nunnu	nunni	nunni
		n-…	n-…	n-…	n-…
	3	punnuŋam / kunnuŋam	kunnu / punnu	punni	punni
		p-… / k-…	k-… / p-…	p-…	p-…
	PC 1	ŋunna	ŋunna	ŋunne
		ŋ-u-[GEM,LOW]-∅	ŋ-u-[GEM,LOW]-∅	ŋ-u-[GEM,FRONT,LOW]-∅
	2	nunna	nunna	nunne
		n-…	n-…	n-…
	3	kunna / punna	punna	punne
		k-… / p-…	p-…	p-…

/ni/ 'use feet RR'
Paradigm: XXXVIII

STEM:
/ni/	DEFAULT	/nni/	C:GEMINATE
/na/	VF:BACK, VH: LOW	/nna/	C:GEM, VF:BACK, VH: LOW

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋinim	ŋini	ŋinaŋa	ŋinaŋa
		ŋ-i-[DEF]-m	ŋ-i-[DEF]-∅	ŋ-i-[BACK,LOW]-ŋa	ŋ-i-[BACK,LOW]-ŋa
	2	ṭinim	ṭini	ṭina	ṭina
		ṭ-…	ṭ-…	ṭ-i-[BACK,LOW]-ŋa	ṭ-i-[BACK,LOW]-ŋa
	3	niŋam / kiniŋam	kini / pini	niŋa	niŋa
		∅-i-[DEF]-ŋam / k-…	k-… / p-…	∅-i-[DEF]-ŋa	∅-i-[DEF]-ŋa
INCL	1	ṭiniŋam	pini	ṭinaŋa	ṭinaŋa
		ṭ-u-[DEF]-ŋam	p-i-[DEF]-∅	ṭ-i-[BACK,LOW]-ŋa	ṭ-i-[BACK,LOW]-ŋa
PL	1	ŋinnaŋam	ŋinni	ŋinnaŋa	ŋinnaŋa
		ŋ-u-[GEM,BACK,LOW]-ŋam	ŋ-i-[GEM]-∅	ŋ-i-[GEM,BACK,LOW]-ŋa	ŋ-i-[GEM,BACK,LOW]-ŋa
	2	ninnaŋam	ninni	ninnaŋa	ninnaŋa
		n-…	n-…	n-…	n-…
	3	pinnaŋam / kinnaŋam	kinni / pinni	pinna	pinna
		p-… / k-…	k-… / p-…	p-…	p-…
	PC 1	ŋinni	ŋinnaŋa	ŋinnaŋa
		ŋ-u-[GEM]-∅	ŋ-i-[GEM,BACK,LOW]-ŋa	ŋ-i-[GEM,BACK,LOW]-ŋa
	2	ninni	ninnaŋa	ninnaŋa
		n-…	n-…	n-…
	3	kinni / pinni	pinnaŋa	pinnaŋa
		k-… / p-…	p-…	p-…

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[4] Street (1987) in addition lists a variant /nuɺa/ use.feet.3SG.PST. This variant does not appear in my corpus data.

		/ma/ 'say, do' /ma/ 'use hands' Paradigm: VIII	STEM:	/ma/ DEFAULT /na/ C:APICAL /me/ VF:FRONT /ne/ C:APICAL, VF:FRONT		

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1		mam	ma	me	me
			$\emptyset$-u-[DEF]-m[5]	$\emptyset$-u-[DEF]-$\emptyset$	$\emptyset$-u-[FRONT]-$\emptyset$	$\emptyset$-u-[FRONT]-$\emptyset$
	2		nam	na	ne	ne
			$\emptyset$-u-[APIC]-m	$\emptyset$-u-[APIC]-$\emptyset$	$\emptyset$-u-[APIC,FRONT]-$\emptyset$	$\emptyset$-u-[APIC,FRONT]-$\emptyset$
	3		mam / kumam	ma / ma	me	me
			$\emptyset$-u-[DEF]-m / k-…	$\emptyset$-u-[DEF]-$\emptyset$	$\emptyset$-u-[FRONT]-$\emptyset$	$\emptyset$-u-[FRONT]-$\emptyset$
INCL	1		ṭumam	puma	ṭume	ṭume
			ṭ-u-[DEF]-m	p-u-[DEF]-$\emptyset$	ṭ-u-[FRONT]-$\emptyset$	ṭ-u-[FRONT]-$\emptyset$
PL	1		ŋumam	ŋuma	ŋume	ŋume
			ŋ-u-[DEF]-m	ŋ-u-[DEF]-$\emptyset$	ŋ-u-[FRONT]-$\emptyset$	ŋ-u-[FRONT]-$\emptyset$
	2		numam	numa	nume	nume
			n-…	n-…	n-…	n-…
	3		pumam / kumam	kuma / puma	pume	pume
			p-… / k-…	k-… / p-…	p-…	p-…
		PC 1		ŋuma	ŋume	ŋume
				ŋ-u-[DEF] $\emptyset$	ŋ-u-[FRONT]-$\emptyset$	ŋ-u-[FRONT]-$\emptyset$
		2		numa	nume	nume
				n-…	n-…	n-…
		3		kuma / puma	pume	pume
				k-…/ p-…	p-…	p-…

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[5] Where forms have a phonologically empty PrefC, I analyse them as having an "underlying" PrefV following whatever theme vowel pattern is established in the rest of the paradigm. In these instances the PrefV cannot be realised on the surface due to the constraint against onsetless syllables (Mansfield, in prep.).

/ma/ 'use hands'
Paradigm: IX

STEM:
/ma/ DEFAULT
/na/ C:APICAL
/me/ VF:FRONT
/ne/ C:APICAL, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	maŋan Ø-u-[DEF]-ŋan	ma Ø-u-[DEF]-Ø	me Ø-u-[FRONT]- Ø	me Ø-u-[FRONT]- Ø
	2	naŋan Ø-u-[APIC]-ŋan	na Ø-u-[APIC]-Ø	ne Ø-u-[APIC,FRONT]-Ø	ne Ø-u-[APIC,FRONT]-Ø
	3	maŋan / kumaŋan Ø-u-[DEF]-ŋan / k-…	ma / ma Ø-u-[DEF]-Ø	me Ø-u-[FRONT]- Ø	me Ø-u-[FRONT]- Ø
INCL	1	ṯumaŋan ṯ-u-[DEF]-ŋan	puma p-u-[DEF]-Ø	ṯume ṯ-u-[FRONT]-Ø	ṯume ṯ-u-[FRONT]-Ø
PL	1	ŋumaŋan ŋ-u-[DEF]-ŋan	ŋuma ŋ-u-[DEF]-Ø	ŋume ŋ-u-[FRONT]-Ø	ŋume ŋ-u-[FRONT]-Ø
	2	numaŋan n-…	numa n-…	nume n-…	nume n-…
	3	pumaŋan / kumaŋan p-… / k-…	kuma / puma k-… / p-…	pume p-…	pume p-…
PC	1		ŋuma ŋ-u-[DEF] Ø	ŋume ŋ-u-[FRONT]-Ø	ŋume ŋ-u-[FRONT]-Ø
	2		numa n-…	nume n-…	nume n-…
	3		kuma / puma k-…/ p-…	pume p-…	pume p-…

/ma/ 'say, do'
Paradigm: XXXIV

STEM:
/ma/ DEFAULT   /na/ C:APICAL
/me/ VF:FRONT   /ne/ C:APICAL, VF:FRONT
/mi/ VF:FRONT, VH:HIGH   /ni/ C:APICAL, VF:FRONT, VH:HIGH

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋamam ŋ-a-[DEF]-m	ŋama ŋ-a-[DEF]-Ø	me Ø-u-[FRONT]-Ø	mi Ø-u-[FRONT,HIGH]-Ø
	2	nam Ø-a-[APIC]-m	ṯama ṯ-…	ne Ø-u-[APIC,FRONT]-Ø	ni Ø-u-[APIC,FRONT,HIGH]-Ø
	3	mam / kamam Ø-a-[DEF]-m / k-…	kama / pama k-… / p…	me Ø-u-[FRONT]- Ø	mi Ø-u-[FRONT,HIGH]- Ø
INCL	1	ṯamam ṯ-a-[DEF]-m	pama p-a-[DEF]-Ø	ṯume ṯ-u-[FRONT]-Ø	ṯumi ṯ-u-[FRONT,HIGH]-Ø
PL	1	ŋamam ŋ-a-[DEF]-m	ŋujema ŋ-uje-[DEF]-Ø	ŋume ŋ-u-[FRONT]-Ø	ŋumi ŋ-u-[FRONT,HIGH]-Ø
	2	namam n-…	nujema n-…	nume n-…	numi n-…
	3	pamam / kamam p-… / k-…	kujema / pujema k-… / p-…	pume p-…	pumi p-…
PC	1		ŋujema ŋ-uje-[DEF]-Ø	ŋume ŋ-u-[FRONT]-Ø	ŋumi ŋ-u-[FRONT,HIGH]-Ø
	2		nujema n-…	nume n-…	numi n-…
	3		kujema / pujema k-… / p-…	pume p-…	pumi p-…

/me/ 'say, do RR'
/me/ 'use hands RR'
Paradigm: X

STEM:
| /me/ | DEFAULT |
| /ne/ | C:APICAL |

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	mem	me	mena	mena
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[DEF]- Ø	Ø-u-[DEF]- Ø
	2	nem	ne	nena	nena
		Ø-u-[APIC]-m	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø
	3	mem / kumem	me / me	mena	mena
		Ø-u-[DEF]-m / k-…	Ø-u-[DEF]-Ø	Ø-u-[DEF]-Ø	Ø-u-[DEF]-Ø
INCL	1	t̪umem	pume	t̪umena	t̪umena
		t̪-u-[DEF]-m	p-u-[DEF]-Ø	t̪-u-[DEF]-Ø	t̪-u-[DEF]-Ø
PL	1	ŋumem	ŋume	ŋumena	ŋumena
		ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø
	2	numem	nume	numena	numena
		n-…	n-…	n-…	n-…
	3	pumem / kumem	kume / pume	pumena	pumena
		p-… / k-…	k-… / p-…	p-…	p-…

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
	PC	1		ŋume	ŋumena	ŋumena
				ŋ-u-[DEF] Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø
		2		nume	numena	numena
				n-…	n-…	n-…
		3		kume / pume	pumena	pumena
				k-…/ p-…	p-…	p-…

/ba/ AFFECT
Paradigm: VIII

STEM:
/ba/	DEFAULT
/da/	C:APICAL
/be/	VF:FRONT
/de/	C:APICAL, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	bam	ba	be	be
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[FRONT]- Ø	Ø-u-[FRONT]- Ø
	2	dam	da	de	de
		Ø-u-[APIC]-m	Ø-u-[APIC]-Ø	Ø-u-[APIC,FRONT]-Ø	Ø-u-[APIC,FRONT]-Ø
	3	bam / bam	ba / ba	be	be
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[FRONT]- Ø	Ø-u-[FRONT]- Ø
INCL	1	t̪ubam	puba	t̪ube	t̪ube
		t̪-u-[DEF]-m	p-u-[DEF]-Ø	t̪-u-[FRONT]-Ø	t̪-u-[FRONT]-Ø
PL	1	ŋubam	ŋuba	ŋube	ŋube
		ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[FRONT] Ø	ŋ-u-[FRONT] Ø
	2	nubam	nuba	nube	nube
		n-…	n-…	n-…	n-…
	3	pubam / kubam	kuba / puba	pube	pube
		p-… / k-…	k-… / p-…	p-…	p-…

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
	PC	1		ŋuba	ŋube	ŋube
				ŋ-u-[DEF] Ø	ŋ-u-[FRONT] Ø	ŋ-u-[FRONT] Ø
		2		nuba	nube	nube
				n-…	n-…	n-…
		3		kuba / puba	pube	pube
				k-…/ p-…	p-…	p-…

/ba/ AFFECT
Paradigm: XIV

STEM:
/ba/	DEFAULT
/da/	C:APICAL
/be/	VF:FRONT
/de/	C:APICAL, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	**1**	baŋam	ba	be	be
		Ø-u-[DEF]-ŋam	Ø-u-[DEF]-Ø	Ø-u-[FRONT]-Ø	Ø-u-[FRONT]--Ø
	2	daŋam	da	de	de
		Ø-u-[APIC]-ŋam	Ø-u-[APIC]-Ø	Ø-u-[APIC,FRONT]-Ø	Ø-u-[APIC,FRONT]-Ø
	3	baŋam / baŋam	ba / ba	be	be
		Ø-u-[DEF]-ŋam	Ø-u-[DEF]-Ø	Ø-u-[FRONT]-Ø	Ø-u-[FRONT]- Ø
INCL	**1**	ṯubaŋam	puba	ṯube	ṯube
		ṯ-u-[DEF]-ŋam	p-u-[DEF]-Ø	ṯ-u-[FRONT]-Ø	ṯ-u-[FRONT]-Ø
PL	**1**	ŋubaŋam	ŋuba	ŋube	ŋube
		ŋ-u-[DEF]-ŋam	ŋ-u-[DEF]-Ø	ŋ-u-[FRONT]-Ø	ŋ-u-[FRONT]-Ø
	2	nubaŋam	nuba	nube	nube
		n-…	n-…	n-…	n-…
	3	pubaŋam / kubaŋam	kuba / puba	pube	pube
		p-… / k-…	k-… / p-…	p-…	p-…
	PC 1	ŋuba	ŋube	ŋube	
		ŋ-u-[DEF]-Ø	ŋ-u-[FRONT]-Ø	ŋ-u-[FRONT]-Ø	
	2	nuba	nube	nube	
		n-…	n-…	n-…	
	3	kuba / puba	pube	pube	
		k-…/ p-…	p-…	p-…	

/be/ AFFECT.RR
Paradigm: X

STEM:
/be/	DEFAULT
/de/	C:APICAL

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	**1**	bem	be	bena	bena
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[DEF]- Ø	Ø-u-[DEF]- Ø
	2	dem	de	dena	dena
		Ø-u-[APIC]-m	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø
	3	bem / kubem	be / be	bena	bena
		Ø-u-[DEF]-m / k-…	Ø-u-[DEF]-Ø	Ø-u-[DEF]- Ø	Ø-u-[DEF]- Ø
INCL	**1**	ṯubem	pube	ṯubena	ṯubena
		ṯ-u-[DEF]-m	p-u-[DEF]-Ø	ṯ-u-[DEF]-Ø	ṯ-u-[DEF]-Ø
PL	**1**	ŋubem	ŋube	ŋubena	ŋubena
		ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø
	2	nubem	nube	nubena	nubena
		n-…	n-…	n-…	n-…
	3	pubem / kubem	kube / pube	pubena	pubena
		p-… / k-…	k-… / p-…	p-…	p-…
	PC 1	ŋube	ŋubena	ŋubena	
		ŋ-u-[DEF] Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø	
	2	nube	nubena	nubena	
		n-…	n-…	n-…	
	3	kube / pube	pubena	pubena	
		k-…/ p-…	p-…	p-…	

/mu/ COERCE
Paradigm: XI

STEM: /mu/ DEFAULT
/nu/ C:APICAL
/ø/ C: WEAK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	muŋam	mu	muni	muj
		Ø-u-[DEF]-ŋam	Ø-u-[DEF]-Ø	Ø-u-[DEF]-ni	Ø-u-[DEF]-j
	2	nuŋam	nu	nuni	nuj
		Ø-u-[APIC]-ŋam	Ø-u-[APIC]-Ø	Ø-u-[APIC]-ni	Ø-u-[APIC]-j
	3	muŋam / muŋam	mu / mu	muni	muj
		Ø-u-[DEF]-ŋam	Ø-u-[DEF]-Ø	Ø-u-[DEF]-ni	Ø-u-[DEF]-j
INCL	1	t̪umuŋam	pumu	t̪uni	t̪umuj
		t̪-u-[DEF]-ŋam	p-u-[DEF]-Ø	t̪-u-[WEAK]-ni	t̪-u-[DEF]-j
PL	1	ŋumuŋam	ŋumu	ŋumuni	ŋumuj
		ŋ-u-[DEF]-ŋam	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-ni	ŋ-u-[DEF]-j
	2	numuŋam	numu	numuni	numuj
		n-…	n-…	n-…	n-…
	3	pumuŋam / kumuŋam	kumu / pumu	pumuni	pumuj
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋumu	ŋumune	ŋumuj
			ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-ne	ŋ-u-[DEF]-j
	2		numu	numune	numuj
			n-…	n-…	n-…
	3		kumu / pumu	pumune	pumuj
			k-… / p-…	p-…	p-…

/mi/ 'look'
Paradigm: X

STEM: /mi/ DEFAULT
/ni/ C:APICAL

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	mim	mi	mina	mina
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[DEF]-na	Ø-u-[DEF]-na
	2	nim	ni	nina	nina
		Ø-u-[APIC]-m	Ø-u-[APIC]-Ø	Ø-u-[APIC]-na	Ø-u-[APIC]-na
	3	mim / mim	mi / mi	mina	mina
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[DEF]-na	Ø-u-[DEF]-na
INCL	1	t̪umim	pumi	t̪umina	t̪umina
		t̪-u-[DEF]-m	p-u-[DEF]-Ø	t̪-u-[DEF]-na	t̪-u-[DEF]-na
PL	1	ŋumim	ŋumi	ŋumina	ŋumina
		ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-na	ŋ-u-[DEF]-na
	2	numim	numi	numina	numina
		n-…	n-…	n-…	n-…
	3	pumim / kumuŋam	kumi / pumi	pumina	pumina
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋumi	ŋumina	ŋumina
			ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-na	ŋ-u-[DEF]-na
	2		numi	numina	numina
			n-…	n-…	n-…
	3		kumi / pumi	pumina	pumina
			k-… / p-…	p-…	p-…

/bi/ 'hear'
Paradigm: X

STEM: /bi/ DEFAULT /di/ C:APICAL

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	bim	bi	bina	bina
		Ø-u-[DEF]-m	Ø-u-[DEF]-Ø	Ø-u-[DEF]- Ø	Ø-u-[DEF]- Ø
	2	dim	di	dina	dina
		Ø-u-[APIC]-m	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø	Ø-u-[APIC]-Ø
	3	bim / kubim	bi / bi	bina	bina
		Ø-u-[DEF]-m / k-…	Ø-u-[DEF]-Ø	Ø-u-[DEF]- Ø	Ø-u-[DEF]- Ø
INCL	1	ṯubim	pubi	ṯubina	ṯubina
		ṯ-u-[DEF]-m	p-u-[DEF]-Ø	ṯ-u-[DEF]-Ø	ṯ-u-[DEF]-Ø
PL	1	ŋubim	ŋubi	ŋubina	ŋubina
		ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø
	2	nubim	nubi	nubina	nubina
		n-…	n-…	n-…	n-…
	3	pubim / kubim	kubi / pubi	pubina	pubina
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋubi	ŋubina	ŋubina
			ŋ-u-[DEF] Ø	ŋ-u-[DEF]-Ø	ŋ-u-[DEF]-Ø
	2		nubi	nubina	nubina
			n-…	n-…	n-…
	3		kubi / pubi	pubina	pubina
			k-…/ p-…	p-…	p-…

/bu/ LOWER
Paradigm: XVII

STEM: /bu/ DEFAULT /ba/ VH:LOW
/du/ C:APICAL /da/ C:APICAL, VH:LOW

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ban	bu	buni	buj
		ø-[LOW]-n	ø-[DEF]-Ø	ø-[DEF]-ni	ø-[DEF]-j
	2	dan	du	duni	duj
		ø-[LOW,APIC]-n	ø-[APIC]- Ø	ø-[APIC]-ni	ø-[APIC]-j
	3	ban / kuban	bu / bu	buni	buj
		ø-[LOW]-n / k-u-[LOW]-n	ø-[DEF]-Ø	ø-[DEF]-ni	ø-[DEF]-j
INCL	1	ṯuban	pubu	ṯubuni	ṯubuj
		ṯ-u-[LOW]-n	p-u-[DEF]-ø	ṯ-u-[DEF]-ni	ṯ-u-[DEF]-j
PL	1	ŋuban	ŋubu	ŋubuni	ŋubuj
		ŋ-u-[LOW]-n	ŋ-u-[DEF]-ø	ŋ-u-[DEF]-ni	ŋ-u-[DEF]-j
	2	nuban	nubu	nubuni	nubuj
		n-…	n-…	n-…	n-…
	3	puban / kuban	kubu / pubu	pubuni	pubuj
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋubu	ŋubune	ŋubuj
			ŋ-u-[DEF]-ø	ŋ-u-[DEF]-ne	ŋ-u-[DEF]-j
	2		nubu	nubune	nubuj
			n-…	n-…	n-…
	3		kubu / pubu	pubune	pubuj
			k-… / p-…	p-…	p-…

/buj/ LOWER.RR
Paradigm: XVIII

STEM: /buj/ DEFAULT /ba/ VH:LOW
/duj/ C:APICAL /da/ C:APIC, VH:LOW

		NFUT (/PRSL)		IRR (/FUT)	PST	PSTIRR
SG	**1**	bam		buj	bana	bana
		ø-[LOW]-m		ø-[DEF]-ø	ø-[LOW]-na	ø-[LOW]-na
	2	dam		duj	dana	dana
		ø-[LOW,APIC]-m		ø-[APIC]- ø	ø-[APIC,LOW]-na	ø-[APIC,LOW]-na
	3	bam / kubam		buj / buj	bana	bana
		ø-[LOW]-m / k-u-[LOW]-m		ø-[DEF]-ø	ø-[LOW]-na	ø-[LOW]-na
INCL	**1**	ṭubam		pubuj	ṭubana	ṭubana
		ṭ-u-[LOW]-m		p-u-[DEF]-ø	ṭ-u-[LOW]-na	ṭ-u-[LOW]-na
PL	**1**	ŋubam		ŋubuj	ŋubana	ŋubana
		ŋ-u-[LOW]-m		ŋ-u-[DEF]-ø	ŋ-u-[LOW]-na	ŋ-u-[LOW]-na
	2	nubam		nubuj	nubana	nubana
		n-…		n-…	n-…	n-…
	3	pubam / kubam		kubuj / pubuj	pubana	pubana
		p-… / k-…		k-… / p-…	p-…	p-…
	PC 1			ŋubuj	ŋubana	ŋubana
				ŋ-u-[DEF]-ø	ŋ-u-[LOW]-na	ŋ-u-[LOW]-na
	2			nubuj	nubana	nubana
				n-…	n-…	n-…
	3			kubuj / pubuj	pubana	pubana
				k-… / p-…	p-…	p-…

/ø/ PIERCE
Paradigm: XXI

STEM: /ø/ DEFAULT
/ra/ C:RHOTIC

		NFUT (/PRSL)		IRR (/FUT)	PST	PSTIRR
SG	**1**	ŋam		ŋa	ŋani	ŋe
		ŋ-a-[DEF]-m		ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ni	ŋ-e-[DEF]-ø
	2	ṭam		ṭa	ṭani	ṭe
		ṭ-…		ṭ-…	ṭ-…	ṭ-…
	3	dam / kam		ka / pa	dani	de
		d-… / k-…		k-… / p-…	d-…	d-…
INCL	**1**	ṭam		pa	ṭani	ṭe
		ṭ-a-[DEF]-m		p-a-[DEF]-ø	ṭ-a-[DEF]-ni	ṭ-e-[DEF]-ø
PL	**1**	ŋaram		ŋa	ŋarani	ŋera
		ŋa-[RHOT]-m		ŋ-a-[DEF]-ø	ŋ-a-[RHOT]-ni	ŋ-e-[RHOT]-ø
	2	naram		na	narani	nera
		n-…		n-…	n-…	n-…
	3	param / karam		ka / pa	pani	pera
		p-… / k-…		k-… / p-…	p-…	p-…
	PC 1			ŋa	ŋarane	ŋera
				ŋ-a-[DEF]-ø	ŋ-a-[RHOT]-ne	ŋ-e-[RHOT]-ø
	2			na	narane	nera
				n-…	n-…	n-…
	3			ka / pa	parane	pera
				k-… / p-…	p-…	p-…

/la/ 'wipe'
Paradigm: XXVI

STEM: /la/ DEFAULT
/lla/ C:GEMINATE

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋilam	ŋila	ŋila	ŋilaŋi
		ŋ-i-[DEF]-m	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-ŋi
	2	ṭilam	ṭila	ṭila	ṭilaŋi
		ṭ-…	ṭ-…	ṭ-…	ṭ-i-[DEF]-ŋi
	3	dilam / kilam	kila / pila	dila	dilaŋi
		d-… / k-…	k-… / p-…	d-…	d-i-[DEF]-ŋi
INCL	1	ṭilam	pila	ṭila	ṭilaŋi
		ṭ-i-[DEF]-m	p-i-[DEF]-∅	ṭ-i-[DEF]-∅	ṭ-i-[DEF]-ŋi
PL	1	ŋillaŋam	ŋilla	ŋilla	ŋillaŋi
		ŋ-i-[GEM]-ŋam	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋi
	2	nillaŋam	nilla	nilla	nillaŋi
		n-…	n-…	n-…	n-…
	3	pillaŋam / killaŋam	killa / pilla	pilla	pillaŋi
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1	ŋilla	ŋilla	ŋillaŋi
		ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋi
	2	nilla	nilla	nillaŋi
		n-…	n-…	n-…
	3	killa / pilla	pilla	pillaŋi
		k-… / p-…	p-…	p-…

/li/ 'wipe RR'
Paradigm: XXXVII

STEM: /li/ DEFAULT
/lli/ C:GEMINATE

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋilim	ŋili	ŋili	ŋiliŋi
		ŋ-i-[DEF]-m	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-ŋi
	2	ṭilim	ṭili	ṭili	ṭiliŋi
		ṭ-…	ṭ-…	ṭ-…	ṭ-i-[DEF]-ŋi
	3	dilim / kilim	kili / pili	dili	diliŋi
		d-… / k-…	k-… / p-…	d-…	d-i-[DEF]-ŋi
INCL	1	ṭilim	pili	ṭili	ṭiliŋi
		ṭ-i-[DEF]-m	p-i-[DEF]-∅	ṭ-i-[DEF]-∅	ṭ-i-[DEF]-ŋi
PL	1	ŋillim	ŋilli	ŋilli	ŋilliŋi
		ŋ-i-[GEM]- m	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋi
	2	nillim	nilli	nilli	nilliŋi
		n-…	n-…	n-…	n-…
	3	pillim / killim	killi / pilli	pilli	pilliŋi
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1	ŋilli	ŋilli	ŋilliŋi
		ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋi
	2	nilli	nilli	nilliŋi
		n-…	n-…	n-…
	3	killi / pilli	pilli	pilliŋi
		k-… / p-…	p-…	p-…

/na/ 'use fire'
Paradigm: XXVII

STEM:
/na/ DEFAULT
/nna/ C:GEMINATE
/∅/ C:WEAK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋinaŋam	ŋina	ŋinaŋa	ŋinaŋi
		ŋ-i-[DEF]-ŋam	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-ŋa	ŋ-i-[DEF]-ŋi
	2	t̪inaŋam	t̪ina	t̪inaŋa	t̪inaŋi
		t̪-…	t̪-…	t̪-i-[DEF]-ŋa	t̪-i-[DEF]-ŋi
	3	ninaŋam / kinaŋam	kina / pina	niŋa	niŋa
		n-… / k-…	k-… / p-…	n-i-[WEAK]-ŋa	n-i-[WEAK]-ŋa
INCL	1	t̪inaŋam	pina	t̪inaŋa	t̪inaŋi
		t̪-i-[DEF]-ŋam	p-i-[DEF]-∅	t̪-i-[DEF]-ŋa	t̪-i-[DEF]-ŋi
PL	1	ŋinnaŋam	ŋinna	ŋinnaŋa	ŋinnaŋi
		ŋ-i-[GEM]-ŋam	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋa	ŋ-i-[GEM]-ŋi
	2	ninnaŋam	ninna	ninnaŋa	ninnaŋi
		n-…	n-…	n-…	n-…
	3	pinnaŋam / kinnaŋam	kinna / pinna	pinnaŋa	pinnaŋi
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋinna	ŋinnaŋa	ŋinnaŋi
			ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋa	ŋ-i-[GEM]-ŋi
	2		ninna	ninnaŋa	ninnaŋi
			n-…	n-…	n-…
	3		kinna / pinna	pinnaŋa	pinnaŋi
			k-… / p-…	p-…	p-…

/ra/ 'watch'
Paradigm: XXVIII

STEM:
/ra/ DEFAULT
/ɻa/ C:GEMINATE
/∅/ C:WEAK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋiraŋan	ŋira	ŋira	ŋiraŋi
		ŋ-i-[DEF]-ŋan	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-ŋi
	2	t̪iraŋan	t̪ira	t̪ira	t̪iraŋi
		t̪-…	t̪-…	t̪-…	t̪-…
	3	diraŋan / kiraŋan	kira / pira	dira	diraŋi
		d-… / k-…	k-… / p-…	d-…	d-…
INCL	1	t̪iraŋan	pira	t̪ira	t̪iraŋi
		t̪-i-[DEF]-ŋan	p-i-[DEF]-∅	t̪-i-[DEF]-∅	t̪-i-[DEF]-ŋi
PL	1	ŋaŋan	ŋiɻa	ŋiɻa	ŋiɻaŋi
		ŋ-a-[WEAK]-ŋan	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋi
	2	naŋam	niɻa	niɻa	niɻaŋi
		n-…	n-…	n-…	n-…
	3	paŋam / kaŋam	kiɻa / piɻa	piɻa	piɻaŋi
		p-… / k-…	k-… / p-…	p-…	p-…
PC	1		ŋiɻa	ŋiɻa	ŋiɻaŋe
			ŋ-i-[GEM]-∅	ŋ-i-[GEM]-∅	ŋ-i-[GEM]-ŋe
	2		niɻa	niɻa	niɻaŋe
			n-…	n-…	n-…
	3		kiɻa / piɻa	piɻa	piɻaŋe
			k-… / p-…	p-…	p-…

/ra/ 'watch RR'
Paradigm: XXXVI

STEM: /ri/ DEFAULT
/ɹi/ C:GEMINATE
/∅/ C:WEAK

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋirim	ŋiri	ŋiri	ŋirini
		ŋ-i-[DEF]-m	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-∅	ŋ-i-[DEF]-ni
	2	ţirim	ţiri	ţiri	ţirini
		ţ-…	ţ-…	ţ-…	ţ-…
	3	dirim / kirim	kiri / piri	diri	dirini
		d-… / k-…	k-… / p-…	d-…	d-…
INCL	1	ţirim	piri	ţiri	ţirini
		ţ-i-[DEF]-m	p-i-[DEF]-∅	ţ-i-[DEF]-∅	ţ-i-[DEF]-ni
PL	1	ŋim	ŋiɹi	ŋi	ŋiɹi
		ŋ-i-[WEAK]-m	ŋ-i-[GEM]-∅	ŋ-i-[WEAK]-∅	ŋ-i-[GEM]-∅
	2	nim	niɹi	ni	niɹi
		n-…	n-…	n-…	n-…
	3	pim / kim	kiɹi / piɹi	pi	piɹi
		p-… / k-…	k-… / p-…	p-…	p-…

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
	PC	1		ŋiɹi	ŋi	ŋiɹi
				ŋ-i-[GEM]-∅	ŋ-i-[WEAK]-∅	ŋ-i-[GEM]-∅
		2		niɹi	ni	niɹi
				n-…	n-…	n-…
		3		kiɹi / piɹi	pi	piɹi
				k-… / p-…	p-…	p-…

/ɖu/ IMPEL
Paradigm: XXIX

STEM: /ɖu/ DEFAULT   /ɖɖu/ C:GEM
/ɖa/ VH:LOW   /ɖɖa/ C:GEM , VH:LOW
/ɖi/ VF:FRONT   /ɖɖi/ C:GEM , VF:FRONT
/ɖe/ VH:LOW, VF:FRONT   /ɖɖe/ C:GEM, VH:LOW, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1	ŋuɖan	ŋuɖu	ŋuɖini	ŋuɖi
		ŋ-u-[LOW]-n	ŋ-u-[DEF]-∅	ŋ-u-[FRONT]-ni	ŋ-u-[FRONT]-∅
	2	ţuɖan	ţuɖu	ţuɖini	ţuɖi
		ţ-…	ţ-…	ţ-…	ţ-…
	3	wuɖan / kuɖan	kuɖu / puɖu	wuɖini	wuɖi
		w-… / k-…	k-… / p-…	w-…	w-…
INCL	1	ţuɖan	puɖu	ţuɖini	ţuɖi
		ţ-u-[LOW]-n	p-u-[DEF]-∅	ţ-u-[FRONT]-ni	ţ-u-[FRONT]-∅
PL	1	ŋuɖɖan	ŋuɖɖu	ŋuɖɖini	ŋuɖɖi
		ŋ-u-[GEM,LOW]-n	ŋ-u-[GEM]-∅	ŋ-u-[GEM,FRONT]-ni	ŋ-u-[GEM,FRONT]-∅
	2	nuɖɖan	nuɖɖu	nuɖɖini	nuɖɖi
		n-…	n-…	n-…	n-…
	3	puɖɖan / kuɖɖan	kuɖɖu / puɖɖu	puɖɖini	puɖɖi
		p-… / k-…	k-… / p-…	p-…	p-…

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
	PC	1		ŋuɖɖa	ŋuɖɖene	ŋuɖɖe
				ŋ-u-[GEM,LOW]-∅	ŋ-u-[GEM,FRONT,LOW]-ne	ŋ-u-[GEM,FRONT,LOW]-∅
		2		nuɖɖa	nuɖɖene	nuɖɖe
				n-…	n-…	n-…
		3		kuɖɖa / puɖɖa	puɖɖene	puɖɖe
				k-… / p-…	p-…	p-…

/ɖi/ IMPEL.RR
Paradigm: XXX

STEM:
/ɖi/	DEFAULT	
/ɖa/	VH:LOW, VF:BACK	
	/ɖɖi/	C:GEM
	/ɖɖe/	C:GEM, VH:LOW
	/ɖɖa/	C:GEM, VH:LOW, VF:BACK

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1		ŋuɖam	ŋuɖi	ŋuɖana	ŋuɖana
			ŋ-u-[LOW,BACK]-m	ŋ-u-[DEF]-Ø	ŋ-u-[LOW,BACK]-na	ŋ-u-[LOW,BACK]-na
	2		ʈuɖam	ʈuɖi	ʈuɖana	ʈuɖana
			ʈ-…	ʈ-…	ʈ-…	ʈ-…
	3		wuɖam / kuɖam	kuɖi / puɖi	wuɖana	wuɖana
			w-… / k-…	k-… / p-…	w-…	w-…
INCL	1		ʈuɖam	puɖi	ʈuɖana	ʈuɖana
			ʈ-u-[LOW]-n	p-u-[DEF]-Ø	ʈ-u-[LOW,BACK]-na	ʈ-u-[LOW,BACK]-na
PL	1		ŋuɖɖam	ŋuɖɖi	ŋuɖɖana	ŋuɖɖana
			ŋ-u-[GEM,LOW,BACK]-n	ŋ-u-[GEM]-Ø	ŋ-u-[GEM,LOW,BACK]-na	ŋ-u-[GEM,LOW,BACK]-na
	2		nuɖɖam	nuɖɖi	nuɖɖana	nuɖɖana
			n-…	n-…	n-…	n-…
	3		puɖɖam / kuɖɖam	kuɖɖi / puɖɖi	puɖɖana	puɖɖana
			p-… / k-…	k-… / p-…	p-…	p-…
	PC	1		ŋuɖɖe	ŋuɖɖana	ŋuɖɖana
				ŋ-u-[GEM,LOW]-Ø	ŋ-u-[GEM,LOW,BACK]-na	ŋ-u-[GEM,LOW,BACK]-na
		2		nuɖɖe	nuɖɖana	nuɖɖana
				n-…	n-…	n-…
		3		kuɖɖe / puɖɖe	puɖɖana	puɖɖana
				k-… / p-…	p-…	p-…

/la/ 'eat'
Paradigm: XXXI

STEM:
/la/	DEFAULT	
/le/	VF:FRONT	
/lla/	C:GEMINATE	
/lle/	C:GEMINATE, VF:FRONT	

			NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	1		ŋulam	ŋula	ŋule	ŋule
			ŋ-u-[DEF]-m	ŋ-u-[DEF]-Ø	ŋ-u-[FRONT]-Ø	ŋ-u-[FRONT]-Ø
	2		ʈulam	ʈula	ʈule	ʈule
			ʈ-…	ʈ-…	ʈ-…	ʈ-…
	3		wulam / kulam	kula / pula	wule	wule
			w-… / k-…	k-… / p-…	w-…	w-…
INCL	1		ʈulam	pula	ʈule	ʈule
			ʈ-u-[DEF]-m	p-u-[DEF]-Ø	ʈ-u-[FRONT]-Ø	ʈ-u-[FRONT]-Ø
PL	1		ŋullam	ŋulla	ŋulle	ŋulle
			ŋ-u-[GEM]-m	ŋ-u-[GEM]-Ø	ŋ-u-[GEM,FRONT]-Ø	ŋ-u-[GEM,FRONT]-Ø
	2		nullam	nulla	nulle	nulle
			n-…	n-…	n-…	n-…
	3		pullam / kullam	kulla / pulla	pulle	pulle
			p-… / k-…	k-… / p-…	p-…	p-…
	PC	1		ŋulla	ŋulle	ŋulle
				ŋ-u-[GEM]-Ø	ŋ-u-[GEM,FRONT]-Ø	ŋ-u-[GEM,FRONT]-Ø
		2		nulla	nulle	nulle
				n-…	n-…	n-…
		3		kulla / pulla	pulle	pulle
				k-… / p-…	p-…	p-…

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/ŋu/ 'pull'
Paradigm: XXXII

STEM: /ŋu/ DEFAULT
/ŋa/ VH:LOW
/ŋi/ VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	**1**	ŋuŋan	ŋuŋu	ŋuŋuni	ŋuŋuni
		ŋ-u-[LOW]-n	ŋ-u-[DEF]-∅	ŋ-u-[DEF]-ni	ŋ-u-[DEF]-ni
	2	ṭuŋan	ṭuŋu	ṭuŋuni	ṭuŋuni
		ṭ-…	ṭ-…	ṭ-…	ṭ-…
	3	juŋan / kuŋan	kuŋu / puŋu	juŋuni	juŋuni
		j-… / k-…	k-… / p-…	j-…	j-…
INCL	**1**	ṭuŋan	puŋu	ṭuŋi	ṭuŋi
		ṭ-u-[LOW]-n	p-u-[DEF]-∅	ṭ-u-[FRONT]-∅	ṭ-u-[FRONT]-∅
PL	**1**	ŋuŋan	ŋuŋu	ŋuŋuni	ŋuŋuni
		ŋ-u-[LOW]-n	ŋ-u-[DEF]-∅	ŋ-u-[DEF]-ni	ŋ-u-[DEF]-ni
	2	nuŋan	nuŋu	nuŋuni	nuŋuni
		n-…	n-…	n-…	n-…
	3	puŋan / kuŋan	kuŋu / puŋu	puŋuni	puŋuni
		p-… / k-…	k-… / p-…	p-…	p-…
PC	**1**		ŋuŋu	ŋuŋune	ŋuŋune
			ŋ-u-[DEF]-∅	ŋ-u-[DEF]-ne	ŋ-u-[DEF]-ne
	2		nuŋu	nuŋune	nuŋune
			n-…	n-…	n-…
	3		kuŋu / puŋu	puŋune	puŋune
			k-… / p-…	p-…	p-…

/ŋi/ 'pull RR'
Paradigm: XXXIII

STEM: /ŋi/ DEFAULT
/ŋe/ VH:LOW
/ŋa/ VH:LOW, VF:FRONT

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
SG	**1**	ŋuŋam	ŋuŋi	ŋuŋana	ŋuŋana
		ŋ-u-[LOW,FRONT]-m	ŋ-u-[DEF]-∅	ŋ-u-[LOW,FRONT]-na	ŋ-u-[LOW,FRONT]-na
	2	ṭuŋam	ṭuŋi	ṭuŋana	ṭuŋana
		ṭ-…	ṭ-…	ṭ-…	ṭ-…
	3	juŋam / kuŋam	kuŋi / puŋi	juŋana	juŋana
		j-… / k-…	k-… / p-…	j-…	j-…
INCL	**1**	ṭuŋam	puŋi	ṭuŋana	ṭuŋana
		ṭ-u-[LOW]-m	p-u-[DEF]-∅	ṭ-u-[LOW,FRONT]-na	ṭ-u-[LOW,FRONT]-na
PL	**1**	ŋuŋam	ŋuŋi	ŋuŋana	ŋuŋana
		ŋ-u-[LOW]-m	ŋ-u-[DEF]-∅	ŋ-u-[LOW,FRONT]-na	ŋ-u-[LOW,FRONT]-na
	2	nuŋam	nuŋi	nuŋana	nuŋana
		n-…	n-…	n-…	n-…
	3	puŋam / kuŋam	kuŋi / puŋi	puŋana	puŋana
		p-… / k-…	k-… / p-…	p-…	p-…
PC	**1**		ŋuŋe	ŋuŋana	ŋuŋana
			ŋ-u-[LOW]-∅	ŋ-u-[LOW,FRONT]-na	ŋ-u-[LOW,FRONT]-na
	2		nuŋe	nuŋana	nuŋana
			n-…	n-…	n-…
	3		kuŋe / puŋe	puŋana	puŋana
			k-… / p-…	p-…	p-…

		NFUT (/PRSL)	IRR (/FUT)	PST	PSTIRR
		/n̪ta/ 'crouch' STEM: /n̪ta/ DEFAULT Paradigm: XXXV			
SG	**1**	ŋan̪taŋan	ŋan̪ta	ŋan̪ta	ŋan̪taɲi
		ŋ-a-[DEF]-ŋan	ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ɲi
	2	t̪an̪taŋan	t̪an̪ta	t̪an̪ta	t̪an̪taɲi
		t̪-…	t̪-…	t̪-…	t̪-…
	3	kan̪taŋan / kan̪taŋan	kan̪ta / pan̪ta	kan̪ta	kan̪taɲi
		k-… / k-…	k-… / p-…	k-…	k-…
INCL	**1**	t̪an̪taŋan	pan̪ta	t̪an̪ta	t̪an̪taɲi
		t̪-i-[DEF]-ŋan	p-a-[DEF]-ø	t̪-a-[DEF]-ø	t̪-a-[DEF]-ɲi
PL	**1**	ŋan̪taŋan	ŋan̪ta	ŋan̪ta	ŋan̪taɲi
		ŋ-a-[DEF]-ŋan	ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ɲi
	2	nan̪taŋan	nan̪ta	nan̪ta	nan̪taɲi
		n-…	n-…	n-…	n-…
	3	pan̪taŋan / kan̪taŋan	kan̪ta / pan̪ta	pan̪ta	pan̪taɲi
		p-a-… / k-a-…	k-… / p-…	p-…	p-…
PC	**1**		ŋan̪ta	ŋan̪ta	ŋan̪taɲi
			ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ø	ŋ-a-[DEF]-ɲi
	2		nan̪ta	nan̪ta	nan̪taɲi
			n-…	n-…	n-…
	3		kan̪ta / pan̪ta	pan̪ta	pan̪taɲi
			k-… / p-…	p-…	p-…