Sound changes in Warlmanpa

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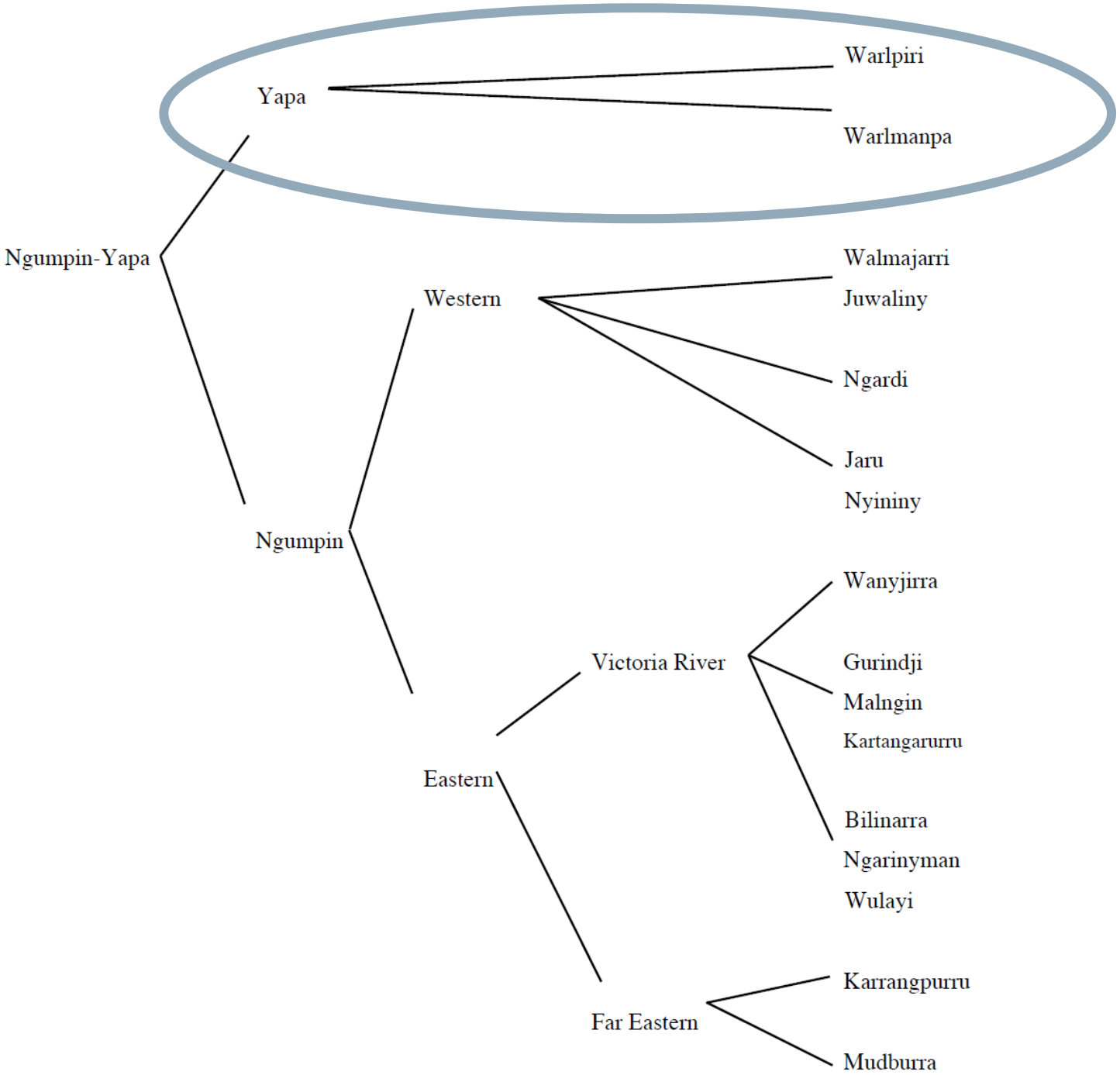
(adapted from Meakins et al. forthcoming; cartographer: Brenda Thornley)



(Meakins et al. forthcoming)

Sound changes in Warlmanpa

- Focusing on three sound changes (some comprised of multiple stages)
- Non-lateral continuant deletion (*arra > a)
- Nasal + stop cluster reduction (*ngka > nga)
- Vowel deletion + alveolar nasal place change (*rninya > nnya)

Non-lateral continuant deletion

- A sequence of VCV (where C is a non-lateral continuant) is reduced to V
  - though also rr > Ø / _ C
- Two points of interest:
  - The resolution of which V is preserved
    - If either V is a low vowel, keep the low vowel
    - No examples of distinct high vowel resolution (i.e. i_u or u_i)
  - How to formalise?

	Gloss	Warlmanpa	Warlpiri	
(1)	kangaroo	*wawirri*	*wawirri*	
(2)	south	*kurlarra*	*kurlarra*	
(3)	moon	*partangarra*	*partangarra*	
(4)	Skin name	*Jupula*	*Jupurrurla*	*urru* > *u*
(5)	Skin name	*Nakama*	*Nakamarra*	*arra* > *a*
(6)	1EXCL.DU.NS	*=jangu*	*=jarrangku*	*arra* > *a*
(7)	say/call, to	*nga-*	*ngarri-*	*arri* > *a*
(8)	become, to	*-ja-*	*-jarriya-*	(1) *iya* > *a* (2) *arra* > *a*
(9)	place, to	*ya-*	*yirra-*	*irra* > *a*
(10)	speak.IMP	*wangka*	*wangkaya*	*aya* > *a*
(11)	shoot	*la-*	*luwa-*	*uwa* > *a*
(12)	climb, to	*waka-*	*warrka-*	*arrka* > *aka*
(13)	front, ahead	*kampa*	*kamparru*	*arru* > *a*
(14)	FUTURE	*nga*	*ngarra*	*arra* > *a*
(15)	ALLATIVE	*-ka*	*-kurra*	*urra* > *a*

Exceptions to continuant deletion

- Complementising suffix *–karra* (marks a same-subject non-finite clause)
  - If reduced to *–ka* then it would be homophonous with *–ka* which marks a **different**-subject non-finite clause
- Words which would have became monosyllabic
  - leads to interesting verb paradigm reanalyses:

Development stage	be.PRES	be.FUT	be.IMP
Proto-Yapa	**karri-nya*	**karri-mi*	**karri-ya*
Continuant deletion	*kanya*	*kami*	*karra*
Modern Warlmanpa form	*ka-nya*	*ka-mi*	*ka-rra*

Exceptions to continuant deletion

- Still synchronically active as variation in one particular context:
- Some verbs + imperfective/away suffix –*rra*:
  - *panang**urra*** ~ *panang**a***
  - (See Browne 2021: 203-205 for conditioning)

And…

- The same synchronic imperative form is found for associated motion / inceptive construction
  - which also shares its present inflection with this verb class
- However, the associated motion / inceptives share their past and future inflection forms with V5

Inflection	V5	Inceptive / AM	V1d
Imperative	*Xnta*	*Xrra*	*Xrra*
Present	*Xnnya*	*Xnya*	*Xnya*
Past	*Xnu*	*Xnu*	*Xngu*
Future	*Xnmi*	*Xnmi*	*Xmi*

ka-**rra** sit!	wanga-nji-**rra** start speaking!
ka-**nya** he's sitting	wanga-nji-**nya** he's starting speaking
ka-**ngu** he sat	wanga-nji-**nu** he started speaking
ka-**mi** he will sit	wanga-nji-**nmi** he will start speaking

Nasal + Stop reduction

- Nasal + stop clusters reduced to nasals
- Only applied to closed class items (inflecting verbs, suffixes, bound pronouns)
- Did not apply to:
  - Palatal clusters (e.g. *wanga<u>nj</u>a* 'speak.INF')
  - Disyllabic words (e.g. *ma<u>nt</u>a* 'get.IMP')

	Gloss	**Stop type**	**Warlmanpa**	**Warlpiri**
(16)	'fall'	Alveolar	*wa-*	*wanti-*
(17)	'sing'	Bilabial	*yina-*	*yunpa-*
(18)	'leave'	Bilabial	*ya-*	*yampi-*
(19)	WITH	Retroflex	*-parna*	*-parnta*
(20)	ERG	Velar	*-ngu*	*-ngku*
(21)	LOC	Velar	*-nga*	*-ngka*
(22)	2SG.NS	Velar	*=ngu*	*=ngku*
(23)	'speak'	Velar	*wanga-*	*wangka-*

NVN reduction

- Sequences of $nasal_1$ + vowel + $nasal_2$ were reduced to *nny* (where $nasal_1$ is coronal and $nasal_2$ is any non-retroflex nasal)
  - rnVny > nny; nVny > nny
- Only affected the verb paradigm

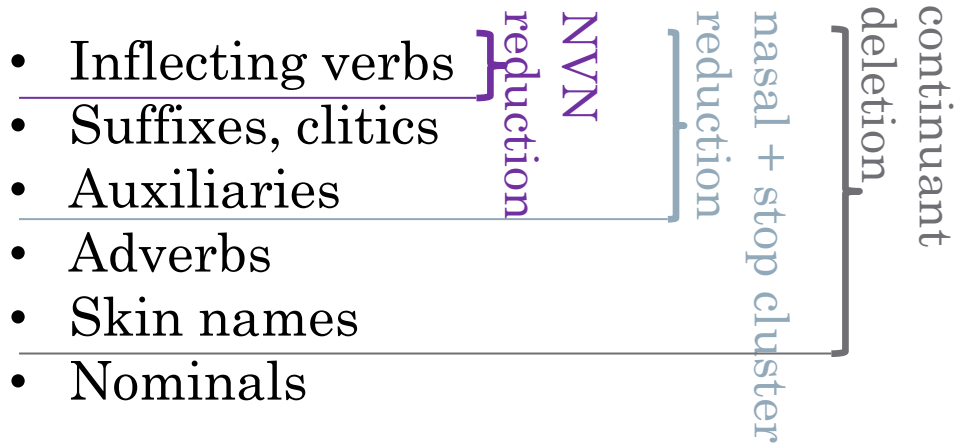
	Gloss	**'get.PRS'**	**'fall.PRS'**	**'fall.FUT'**	**'tell.PRS'**
	Proto form	**mananya*	**wantinya*	**wantimi*	**ngarrirninya*
1	Nasal + stop reduction	—	*waninya*	*wanimi*	—
2	Vowel deletion	*mannya*	*wannya*	*wanmi*	*ngarrirnnya*
3	Alveolar place change	—	—	—	*ngarrinnya*
4	Continuant deletion	—	—	—	*ngannya*
	Warlmanpa form	*mannya*	*wannya*	*wanmi*	*ngannya*

Summary / insights

- Continuant deletion difficult to formalise in a single rule because it seems to require some constraint-based mechanism to account for urra > a & arri > a (and urru > u)
- How to incorporate ‘maintain minimal disyllabic word’ into sound change rule?
- How to incorporate ‘affect words classes other than nominals’ into sound change rule?

Summary / insights

- Sound changes affecting various levels of closed class words (no sound changes seemed to affect nominals – some but probably not all can be explained by borrowings after change)



References

- Browne, M. 2021. A Grammatical Description of Warlmanpa. PhD Thesis, University of Queensland.
- Meakins, F., Ennever, T.B., Osgarby, D.J., Browne, M. and Hamilton, A. Forthcoming. Ngumpin-Yapa Languages. In *Handbook of Australian Languages*, edited by C. Bowern, forthcoming. Oxford: Oxford University Press.