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Working verbs: the spread of a loan word in Australian languages

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1. Introduction¹

From the first encounters with outsiders, Indigenous Australians developed words for expressing the new things, animals and concepts that came with the outsiders. This paper shows how the distribution of a single loanword ‘work’ and its variants across Australia sheds light on early contact between outsiders and Indigenous Australians, as well as between Indigenous Australians themselves. I propose that widespread multilingualism has led to diffusion both of forms and of strategies for integrating them morphologically into the grammars of individual languages. The geographical distribution of a surprising pronunciation of ‘work’ involving a flap or trill and possibly a final /m/ suggests diffusion areas of borrowing from neighbouring languages and chain borrowing, rather than separate independent borrowings from English. Diffusion through traditional Indigenous languages, rather than through a contact language, provides a partial explanation for the surprising absence of particular variants in the English-lexifier contact languages that developed in Australia.

¹ Over the last forty years Luise Hercus has been for me a model scholar, whose ‘work’ is her pleasure, and whose ‘work’ is imbued with a deep interest in, and concern for, people. I owe her a great deal. For this paper, I thank Claire Bower for use of her Pama-Nyungan database and David Nash for data, discussion and preparing the map. I also thank two anonymous referees, Joe Blythe, Harold Koch, Mary Laughren, Patrick McConvell, John Mansfield, Stephen Morelli, Julia Robinson, Michael Walsh, David Wilkins, the audience at the 2012 Australian Linguistics Society annual meeting, and the audience at a University of Sydney Linguistics seminar in September 2015.

1.1 Forming words for new concepts in Australian languages

From the start of encountering outsiders, Indigenous Australians developed ways of expressing the new concepts that outsiders brought with them. Strategies for doing this were categorized and documented by O'Grady for the Pama-Nyungan language Nyangumarta (O'Grady 1960), and further illustrated by other authors (Amery 1993; Dixon 1980; Leeding 1984; McGregor 2000; Simpson 1985, 2014a; Walsh 1992). They include extension of denotations of existing words, borrowing, using existing prefixes and suffixes, compounding, reduplication, and onomatopoeia. A fourth way involves hybrid creation, inserting borrowed forms into existing grammatical structures. These strategies are exemplified in the solutions that a number of Australian Indigenous speech communities developed for expressing the loan concept 'work'.

Borrowing is common, and is attested from very early on, in Macassan loanwords in northern languages (Evans 1992a; Walker & Zorc 1981), some of which were borrowed before British colonisation. More than 130 borrowings of concepts in many northern coastal languages are found, but they only include five verbs, 'gamble', 'lie', 'paddle a boat', 'to write' and a word for 'work':

- Makassar Bugis *jáma* 'do, work, handle, touch', Garig *iyamaŋ* 'he works' Burarra *ɬama* 'work, job' *mu-ɬama* 'worker' (Evans 1992a)

These examples show a mixture of clear borrowings of new concepts (gambling, writing, boat technology) and less clear examples (lying, working).

By the mid-19th century more than 250 loan words were attested in the South Seas Jargon contact varieties used in ships and islands across the Pacific (Crowley 1993). Almost all are nouns. There are very few verbs, but they include *ple* 'play cards' and *wak* 'work'. Borrowing of forms denoting something like 'work' from Macassan into Top End languages, and from English into South Seas Jargon suggest that 'work' is a highly salient concept to borrow, and this is borne out by examples from several languages in Wohlgemuth (2009). (Note however that the semantically related form 'to do/make' is on the list of the 100 least borrowable meanings, Tadmor 2009).

In Australia certain words from Indigenous languages for loan concepts spread around the country, for example *yarraman* 'horse' from the Sydney area, and *nantu* or *nantuwu* 'horse' from Adelaide (Walsh 1992). The spread of loanwords from English is less visible, because independent borrowing of a loanword from English is hard to distinguish from spread through contact with speakers of Indigenous languages (or contact varieties) who had already borrowed that word.

Borrowings may also be embedded in morphological or phrasal structures of the language, resulting in 'hybrid creations' (Haugen 1950). For example, Yorta Yorta speakers (Bowe & Morey 1999) added the ending *-upna* to *munu* 'leg' to

form *muniúpna* ‘trousers’. Added to the word *wol* (English ‘wool’), it produces *wolupna* ‘sheep’. Using generics together with loanwords is another example of a phrasal hybrid creation:

- Diyari *marda* classifies stone and minerals: *marda makita* ‘gun’ [i.e. includes loanword from ‘musket’] (Austin 1981:38)
- Yir Yoront *minh* classifies meat e.g. (*minh*)-*kalq*+*perr* meat-spear-? ‘echidna’: *minh-pik* ‘pig’ (Alpher 1991)

Constructions for expressing new concepts may spread from neighbouring speech communities. Consider these words for clothing:

- Adelaide (Kurna) (Teichelmann & Schürmann 1840) *mukke* ‘the mucus of the nose’, *nukke-ana* ‘pocket-handkerchief’; *tiki* ‘the region of the ribs’, *tiki-ana* ‘waistcoat’ (*-ana* appears to mean something like ‘associated with’)
- Lower Murray River (Ngaiawang) (Moorhouse 1846) *lakko* ‘mucus of the nose’, *lakk-arru* ‘pocket handkerchief’; *pune* ‘side’, *pun-arru* ‘a waistcoat’ (*-arru* ‘pertaining to, belonging to’)

The similarity of constructions for the loan concepts in Kurna and Ngaiawang indicates that the expressions may not be independent inventions, since both groups were in contact on the Adelaide Plains almost from the start of the settlement.

2. New concepts denoting actions

World-wide, concepts denoting things are borrowed more often than concepts denoting actions (Haugen 1950; Tadmor 2009), since they often denote concrete objects and their names are easy to elicit. Nouns are easy to take into those Aboriginal languages in which nominals can occur morphologically unmarked (usually as subject of intransitive verbs and object of transitive verbs).

Verbs present particular difficulties for borrowing. First, denotations such as actions, states, emotions and thoughts are harder to elicit. Second, word-class assignment may be hard; in many Pama-Nyungan languages verbs are rigidly transitive or intransitive, may belong to distinct conjugation classes, may be a closed class, and may appear inflected all or most of the time. Third, morphological integration may be hard; complex verb templates with closed class classifier verbs may make it hard to slot in loan verbs (Mansfield 2016).

Early on, English verbs were rarely borrowed into Indigenous languages. Extensions, phrases and some morphological processes were used instead. Examples from Kurna (Adelaide) (Teichelmann & Schürmann 1840) include:

- *titta-ngga yungondi* ‘to give in exchange, to sell’ (‘exchange-LOC give’)
- *perki-appendi* ‘to shoot’, from *perkendi* ‘to crepitate; sound; give a report’ and *wappendi* ‘to make, do, perform’; ‘It is frequently met with as part of compound verbs, to which it imparts an active or causative meaning’

However, ‘work’ is a form which denotes an action in English, and which is widely borrowed. At least 100 Australian languages have loanwords from English ‘work’ (count of forms in Bovern 2016), frequently inside hybrid creations. Whether the borrowing languages use this word with the same senses as English ‘work’ is not always easy to tell from glosses, and may vary. Heath suggests that the Wubuy (Nunggubuyu) borrowing has the ‘European sense of paid employment’ (Heath 1982:214), and this seems likely as a reason why the form ‘work’ is borrowed early, along with words for ‘money’. However, in Walmajarri the denotation may be narrowed down to physical labour, rather than other kinds of paid employment (Richards & Hudson 1990).

2.1 Part of speech of the borrowed word ‘work’

The English word ‘work’ can be a verb or a noun (albeit also in light verb structures ‘do some work’). Indigenous speech communities borrowing the form adopt different strategies for incorporating it into the grammar of their languages. They may borrow it as a noun (Warlpiri *warrki*). They may borrow it as an inflecting verb, as in Paakantyi *warka-* ‘to work’, where verbs appear to be an open class, and there are no conjugation classes (Hercus 1982:180). Presence of conjugation classes doesn’t prevent borrowing verbs in Garrwa, where *waki* is borrowed as a conjugation class 3 verb ‘to work’ (Mushin 2012). Finally they may borrow it using an existing structure, e.g. using semantically appropriate inflecting verb stems with borrowed creole or English verbs as uninflecting verbs stems (Schultze-Berndt 2007), or as ‘coverbs/preverbs’: Gurindji *waruk* and Bilinarra *warug* are ‘coverbs’; the ‘work’ action concept is expressed by combining coverbs with light verbs (Bilinarra: *mana* ‘do, get’ or *garra* ‘be, sit, become’; Gurindji *karrinyana* ‘be, sit’) (Meakins 2013; Meakins et al. 2013). Related Ngumpin-Yapa languages Jaru, Mudburra and Ngardi have similar forms and uses (see 3.2).

2.2 Hybrid creations using and extending existing phrasal structures

The coverb plus light verb structure is a hybrid creation using an existing structure of the language. This structure is unlikely to have evolved independently in each of the languages, and so possibly the use of the coverb-verb structure started in one community, and then was borrowed by other communities. This is reinforced by many of the loanwords for ‘work’ having a form with a postvocalic rhotic (see 3.4), which is unusual for words originally borrowed from English.

The extension of a structure for loanwords is also seen in Yir Yoront *woq tha* ‘work do’ (Alpher 1973:382). The light verb/intransitive verb-forming suffix *-tha* is used productively to incorporate English and Kriol verbs regardless of transitivity, but not as objects, as the resulting verb is intransitive. Alpher notes that this structure was apparently limited with respect to native Yir Yoront words, but people began using it more productively with loan verbs. Alpher (1973: 382) notes that speakers deprecated the new use of the structure in the early 1970s:

Native speakers of YY manifest irritation when an outsider picks up a construction of this type and questions them about it. They regard it as not real YY and not real English either, a lapse of good taste that it is politest not to notice.

A similar extension is found in Murrinh Patha *wurlk kanam* ‘he is working’, which is a phrasal verb construction with a coverb *wurlk* or *wurrk* and an inflected classifier verb *kanam* (Mansfield 2014). Mansfield argues that this construction has been extended recently to accommodate loan verbs which would otherwise be hard to fit into the polysynthetic verb template (Mansfield 2016).

2.3 Hybrid creations using existing morphological structures

Speakers may create a hybrid construction using derivational forms. Warlpiri *warrki* ‘work’ appears with the intransitive bound verb as *warrki-jarrimi* ‘to work’, and with the transitive bound verb as a causative *warrki-mani* ‘to make someone work’ (Laughren 2007). *-jarri-mi* and *-ma-ni* are very productive bound verbs, creating intransitive and transitive verbs respectively from nominals: *ngurrju* ‘good’, *ngurrju-jarri-mi* ‘get better’, *ngurrju-ma-ni* ‘make better’. Other borrowed transitive verbs include *riitima-ni* ‘read’ and *wajima-ni* ‘wash’. Eastern and Central Arrernte speakers form a verb ‘to work’ in a rather similar way: *warrke-irreme* ‘to work’ using a suffix *-rre-* or *-irre-* (Henderson & Dobson 1994). Warumungu speakers add a productive intransitive bound verb *-ji-nta*: *warrkki-ji-nta* (Simpson 2014b).

3. Forms of the borrowed word ‘work’

As a loanword, ‘work’ undergoes changes in form.² The most significant of these are the choice of vowel following /w/, and whether or not there is a rhotic consonant, a vowel following the rhotic, or a final syllable following /k/.

² The material on loanwords for ‘work’ is drawn from searching Claire Bower’s Pama-Nyungan etymological database (Bower 2016) and supplementing it with material from languages or sources not included therein.

3.1 Initial and final vowels

Whether or not there is a final vowel depends largely on the phonotactics of the language. The form of final epenthetic vowels varies considerably across languages and sometimes within them (McManus 2009).

The initial vowel is mostly realised as /a/ or /a:/ but sometimes as /u/ or /o/ (the latter mostly in the north):

- Burarra *wurrkakiya wengga* ‘work self up to anger by talking’ (Glasgow & Glasgow 2011)
- Dalabon *wurkihmu, workimhmu* ‘work’ Intransitive verb (Evans, Merlan & Tukumba 2004)
- Murrinh Patha *wurlk kanam* ‘he is working’ (Ford & McCormack 2011 [original 2007]:12) or *wurrk* (John Mansfield p.c. 2015)
- Wumbulgari *woruku* ‘work’ (SIL wordlist, source Bovern 2016)
- Lardil, Yukulta *wukuwa* ‘to work’ (Keen 1983, Ngakulumungan Kangka Leman & Hale 1997)
- Kayardild *wukuwatha, wukuwaaja* ‘to work, to work on’ (intransitive or transitive verb) (Evans 1992b)

Some languages have variants, reflecting the position of the English central vowel in ‘work’ between the /a/ and /u/ of many Indigenous languages, but perhaps also reflecting different sources of borrowing;

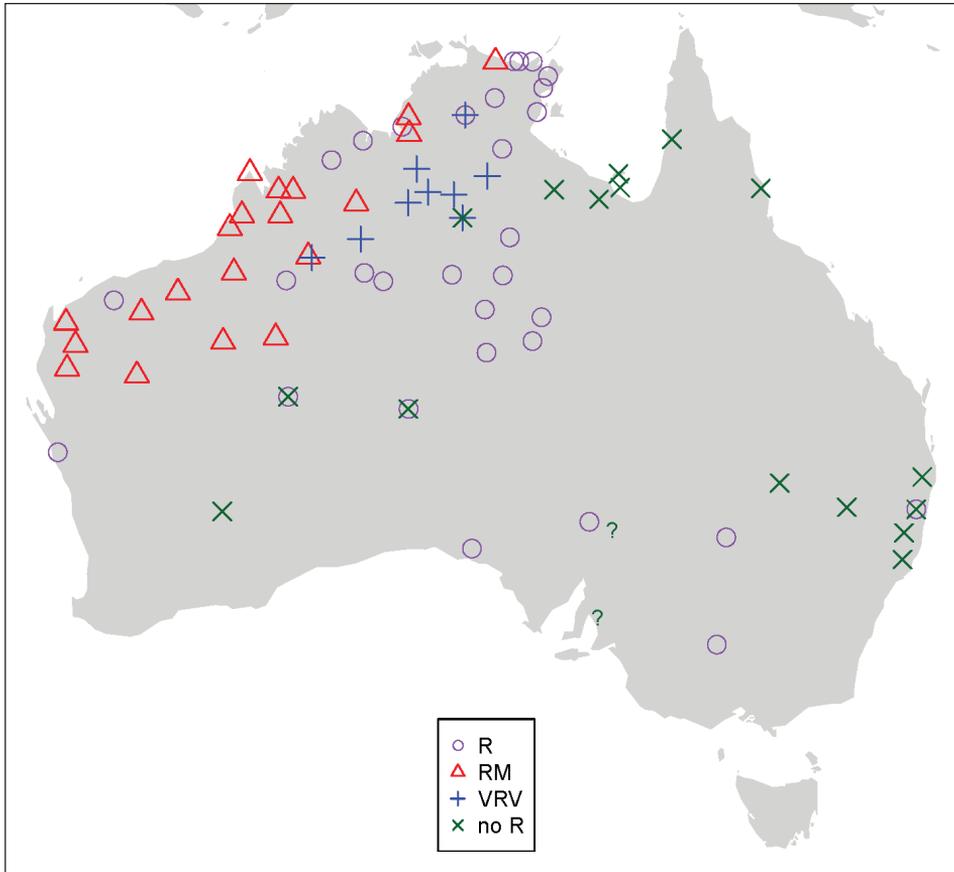
- Alawa *warg-nemberli, wurg-nemberli* ‘work’ (Sharpe 2001)
- Wangkatja *waaka ~ wuuku* ‘work, job’ (Blyth 1968)
- Yidiny *wagi ~ wugu* ‘work’ (Dixon 1991:217-218)
- Gumbaynggirr *wuunggiya ~ waanggiya* ‘to work’ (Morelli 2008)
- Jawoyn *wurki’-ma(ma)ng, woroki’-ma(ma)ng* (Merlan & Jacq 2005)

Variation is inevitable in situations of intense language change, and is evident in Ngardi (Cataldi 2011/2004): *warak* p.14, *warruk-mananta* p.78, *warruk-panarni* p.125, *warrak-parnaninyirrarna* p.127, *work-manani* p.206.

3.2 Distribution of rhotics

Most intriguing for the origins and dissemination of the loanword is the presence of a rhotic in more than 50 languages (See map overleaf). This rhotic is missing in modern standard Australian English, and also in the South Seas Jargon borrowing *wek*.

I have organized examples roughly by region. The areal distribution shows a relative rarity of forms with rhotics in the east and south.



Distribution of attested loanword forms with and without rhotics
 Map: David Nash.

Pilbara and North-western region

- Bardi *warrgam injoogal* ‘work: he worked’ (Aklif 1999)
- Jiwari *warrgamu* ‘work’, *warrgamu-rri-a* ‘to work’ (intransitive verb) (Austin 1992)
- Kija *warrkampe* ‘work’ (Blythe 2001)
- Ngarinyin *warg* ‘work’ (Rumsey 1982:68)
- Ngarluma *warrka-marni* ‘work’ (O’Grady & Hale 1968)
- Nhanta *warrka* ‘work’ (noun) (O’Grady, Hale & Curr 1968)
- Nyamarl *warrkamci* ‘work’ (Klokeid & O’Grady 1968)
- Nyangumarta *warrkam(u)-ji-* ‘work’ (verb) (Sharp 2004:207)
- Nyikina *wargam* ‘to work’ (McGregor 2006)
- Thalanyji *warrgamu-rri-n* ‘to work’ (intransitive verb) (Austin 1992)
- Tharrgari *warrgamurra* ‘working’ (Bower 2016)
- Unggumi *warrgunga* ‘work’ (Bower 2016)

- Warriyanga *warrgamu-rrri-a* ‘to work’ (intransitive verb) (Austin 1992)
- Warrwa *warrkamka* ‘work’ (Bowern 2016)
- Wumbulgari *woruku* ‘work’ (Bowern 2016)
- Yawuru *wargam* ‘to work’ (McGregor 2006)
- Yindjibarndi *warrgamu-* ‘work’ (intransitive verb) (Anderson n.d.)

Western Desert languages

- Gardudjarra *warrkamurri* ‘work’ (O’Grady, Marsh & Lindgren 1968)
- Karajarri *wargam* ‘to work’ (McGregor 2006)
- Kukatja *waarrakula, waraku* ‘work’ (Valiquette 1993)
- Martu Wangka *warrkam* (noun), *warrkamurringu* ‘to work’ Intransitive verb (Marsh 1992)
- Ngaanyatjarra *waarka, wuuku* ‘work’ (Glass et al. 2003)
- Pintupi-Luritja *waarrka, waarka, wuurrkuringu, waarrkaringu* ‘work’ (Hansen & Hansen 1992)
- Pitjantjatjara/Yankunytjatjara *warka, waaka* ‘work’ (Goddard 1992)
- Wirangu *waarga, warrka* ‘work’ (Hercus 1999)
- Yurlbaridja *warrka-ma-* ‘work’ (O’Grady 1954-1967)

Ngumpin-Yapa languages

- Birlinarra *warag* ‘work’ (Meakins 2013)
- Gurindji *warug* ‘working’ (Meakins et al. 2013)
- Jaru *warrag, warrag manan* ‘work’ (Wrigley 1992)
- Mudburra *warak(ma), warungali* ‘work’ (McConvell & Nash 1992)
- Ngardi *warak, warruk-ma-, warruk-pa-, warrak-ma-* (Cataldi 2011/2004)
- Ngarinyman *warag-ngarna* ‘someone who works’ (Jones 1995)
- Walmajarri *warrkam, warrkam-marnu* ‘work (at physical labour)’ (Richards & Hudson 1990)
- Walmajarri (east) *warak, warak-parnu* ‘work’ (Richards & Hudson 1990)
- Warlmanpa *wak-ja-rra, warik-ja-rra* ‘to work’ Warlmanpa *wak-ja-rra, warik-ja-rra* ‘to work’ (intransitive verb) (McConvell & Nash 1992)
- Warlpiri *warrki* ‘work’ (noun), *warrki-jarrimi* ‘to work’ (Laughren 2007)

Central Australian languages

- Arrernte (Eastern and Central) *warrke-irreme, urrkapeme* ‘to work’ (Henderson & Dobson 1994)
- Alyawarr *warrk* ‘work’ (noun), *warrkerreyel* ‘to work’ (Green 1992)
- Anmatyerr *warrk* ‘work’ (noun), *rrkwapem* ‘to do things, to work’ (Green 2009)
- Jingulu *warak, warak ngali* ‘work’ (Pensalfini 1997)
- Kaytetye *warrke* ‘work’ (noun), *warrkarrenke* ‘to work’ (intransitive verb) (Turpin & Ross 2012)
- Warumungu *warrkki* ‘work’ (noun) (Simpson 2014b)

Northern Australian languages

- Alawa *warg-nemberli*, *wurg-nemberli* ‘work’ (verb) (Sharpe 2001)
- Burarra *wurrkakiya wengga* ‘work self up to anger by talking’ (Glasgow & Glasgow 2011)
- Dalabon *wurkihmu*, *workimhmu* ‘work’ (intransitive verb) (Evans, Merlan & Tukumba 2004)
- Djapu *warkthu* ‘work’ (transitive verb) (Morphy 1983)
- Gupapuyngu, Ritharngu *wark* ‘work, job, employment’ (Zorc 1986)
- Golpa *wark’thun*, Yan-nhanju *warkthun* ‘work’ (Bowern 2014)
- Jawoyn *wurki’-ma(ma)ng*, *woroki’-ma(ma)ng* (Merlan & Jacq 2005)
- Mengerdji *wurkimunum* ‘work’ (Bowern 2014)
- Marri Tjevin *wurkuma* ‘work’ (coverb and incorporated verb) (Mansfield 2016)
- Murrinh Patha *wurlk kanam* ‘he is working’ (Ford & McCormack 2011 [original 2007]:12) or *wurrk* (John Mansfield pers. com. 2015)
- Ngan’gi *wurkama* (Reid & McTaggart 2008)
- Wubuy (Nunggubuyu) =*w₂ardha-* ‘to work (mainly in European sense of paid employment)’ (intransitive verb) (Heath 1982:214)

South and East

- Gumbaynggirr *warrg-ambi-* ‘work’ (intransitive verb) (Morelli 2008, Smythe 1948)
- Paakantyi *warga-* ‘to work’ (Hercus 1982)
- Wembawemba *werkitya* (verb) (Hercus 1992)
- Adnyamathanha *walka warnda-* ‘to work’ (Schebeck 1987)
- Kuyani *warkani-* ‘to work’ (intransitive verb) (Hercus n.d.)

The rhotic is most often a flap or a trill, because many languages only have flaps or trills in this position, and may possibly reflect an original source in a Scots English pronunciation (Harold Koch pers. com. 2015). Sometimes, as in Wubuy and Djapu and other Yolŋu languages, a retroflex glide is used.³ Sometimes a lateral is used, when the cluster ‘flap/trill velar stop’ is dispreferred (Adnyamathanha).

3.3 Origins of rhotics

Some appearances of rhotics may relate to first contact. For example, the rhotic in the Gumbaynggirr form may relate to early settlement by Scots around Maclean and the Clarence River (Steve Morelli pers. com. 2015).

However, the wide distribution of forms with the rhotic suggests that there are unlikely to have been dozens of independent borrowings from English-speaking Scots or Irish shepherds or drovers. Instead, it suggests that speakers borrowed

³ The glide is not required phonotactically since Wubuy and Djapu allow the alveolar flap/trill in this position as well.

the rhotic forms from their neighbours, whether from traditional languages or from a contact variety. In the Northern Territory, spread from the neighbours' language seems more likely, since there is little evidence of the rhotic in modern Northern Territory Kriol; only variants of *wek* are listed in the Kriol dictionary (Lee 2014).

Obvious places to begin looking for early forms with rhotics are speech communities near the sites of first settlement in the Sydney region. The word 'work' is attested in NSW Pidgin,⁴ usually in that spelling, which gives no clue as to whether it was pronounced with a rhotic, since Australian English is a non-rhotic dialect.⁵ Not all Sydney region languages⁶ have words recorded with meanings like 'work', but among those that do, most lack rhotics or do not appear to be loanwords:

- Awabakal *uma-* 'do, make, create, help'; *umalikan* 'one who works, a worker'; *wupa-* 'do, make, paint, put'; *wupalikan* 'one who does, a worker' (Lissarague 2006). Lissarague does not consider these to be loanwords
- Dhanggati *wuung-ga* 'be working' (*-ga* is an intransitivising morpheme) (Lissarague 2007:90)
- Bundjalung *wa:ŋ-ma* 'work' (Crowley 1978) (Crowley treats it as a loan)
- Gathang *waapanga* 'to work' Verb, written down around 1873, *wuwang* Noun, written down in the 1960s (Lissarague 2010). (Lissarague treats *wuwang* but not *waapanga* as a loan from English)
- Gamilaraay *waan* 'work' (noun) (Ash, Giacon & Lissarague 2003:135). (This is treated as a loan.)
- Muruwarri *waa yi-* 'to work' (Oates 1988). (This is treated as a loan.)

It is uncertain whether all the forms beginning with *wu-* in particular are loan words, or whether they reflect a coincidence of sound with an existing word in the language that already has a meaning extendable to English 'work'.⁷

The language closest to Sydney that has a rhotic form is Gumbaynggirr: *warrg-ambi-* 'work' (intransitive verb), *warrgang*, *warrugamany*. While Gumbaynggirr people have had contact with non-Aboriginal people since the 1840s, the first attestation of the rhotic form was recorded between 1942

⁴ An early example from the Port Stephens area is 'I make black pellow work, I make it work, dat no gammon me Massa' Robert Dawson 1826, Letter to Mrs Robert Dawson. ML: Q991/D (Troy 1994: Appendix 7).

⁵ When nineteenth and early twentieth century Australian writers want to represent a pre-consonantal rhotic pronunciation such as Irish or Scottish speech, they may use 'rr' to represent it, as in: 'Thomas Johnston pleaded 'guilty' to having been drunk and incapable. Mr. Leake: How do you get your living, my man? Prisoner: Boy **wurking**, Sor. Mr. Leake: Then pay ten shillings, or go in for fourteen days.' (Anonymous 1884)

⁶ I did not find forms in Dharawal and Dhurga (Eades 1976) and Darkinyung (Jones 2008).

⁷ The loanword proposal is that the languages do not permit word-final /k/, and so it is either omitted or the final /k/ is changed into a nasal.

and 1945: *wa'gambeigu* 'to work' (Smythe 1948:147). As well, other forms for 'work' are attested, which resemble those of Dhanggati and Bundjalung: *wuunggiya* and *waanggiya* (Morelli 2008). We do not know which form was the earliest.

The next closest languages to Sydney with rhotic forms are geographically removed from Gumbaynggirr: Paakantyi (lower Darling River) *warga-* 'to work' and Wembawemba (Swan Hill and the mallee country) *werkitya*. These areas were settled at roughly the same time as Gumbaynggirr country.

Despite the presence of these rhotic forms, it is striking how few words for 'work' with internal rhotics are attested in the earlier settled regions, or in Queensland. In Tasmania an attested word for 'work' is *wan.a.pack.a.la.lea* (Oyster Bay, William Bedford) (Plomley 1976), which may or may not involve a loan word. A form *yacca* is found in the Brisbane area in a letter to the editor which uses NSW Pidgin forms ("WOGAN" 1854), and variants are also listed with the meaning 'work' in vocabularies of Biri, Yagara and Yugarabul (Bowern 2016). It is unclear whether *yakka* in the sense of 'work' is original to these languages, or a loanword from 'work' or from the 'talk' sense of *yacker*. In the Perth area the word *yacker* for 'work' is recorded, but quite late, by Buller-Murphy (who was born in 1888) (Bindon & Chadwick 1992). In early records of the Adelaide and Eyre Peninsula area local words are glossed as 'work' with other meanings such as 'move' (Kurna, Teichelmann & Schürmann 1840), 'busy oneself' (Barngarla, Schürmann 1844), 'building' (Encounter Bay, Meyer 1843). One Kurna form *wirkutta* 'active' and *wirkuttaendi* 'to be active, industrious; to hasten, to stick to the work, etc.' is a candidate in form for a loan word, although the range of meanings make this less likely.

The presence of a rhotic in variants of 'work' leads to the question of whether pre-consonantal stem-internal rhotics are found in other form-meaning pairs that are often borrowed, such as 'church', 'shirt', 'turkey'. The most widespread is the borrowing *tarrki* 'turkey' with a stem-internal rhotic (Patrick McConvell & Mary Laughren pers. com. 2012), found also in the Kija pronunciation *Tarrkikrik* of the place-name 'Turkey Creek' (Blythe 2001). Unlike 'work', *tarrgi* is also found in Northern Territory Kriol, and many examples (but usually with /u/) exist in Queensland e.g. Yir-Yoront *thurrqn*.

Minor examples exist of other borrowed words with rhotics: compare Ngaanyatjarra *tjurrnju*, *tjurrji* 'church' with Pintupi *tjaatji*, Kaytetye *tyayetye*, Warlpiri *jaaji*. While loanwords for 'shirt' are widely attested, Yulparidja *jarrarta* is one of the few with a clear rhotic.

One dialect of Aboriginal English in southern South Australia still maintained a stem-internal post-vocalic /r/ in the mid-1980s (Sutton 1989), and interestingly seven of the ten forms listed with rhotics are transcribed with a mid-central vowel similar to that in English 'work' and 'turkey' ('church', 'Tichbourne', 'preserved', 'Perth', 'Clifford', 'personal', 'early'). This dialect is a possible source of the rhotic forms for 'work' in Adnyamathanha and Kuyani, but I have no evidence that this community was the locus of the spread of the rhotic forms for 'work' and 'turkey'.

The distribution of rhotic forms for ‘work’ suggests diffusion of a contact form with a few independent innovations. The diffusion path is different from the commonly accepted paths of forms spreading via contact languages, such as Queensland Pidgin English and Roper River Kriol spreading west (Meakins 2014), because of lack of attestation of rhotic forms of ‘work’ in present-day Northern Territory Kriol and in Queensland.

3.4 Local distribution of rhotic forms

Another striking feature of the rhotic forms is that diffusion areas are visible for particular subtypes, notably forms with a sequence VRhoticV, and forms with a final /m/.

‘wVRhoticVk’ is common to most of the Ngumpin languages, to Jingulu which is in close contact with the Ngumpin language Mudburra, and is an alternate in the Yapa language, Warlmanpa. Eastern Walmatjarri has it but Western Walmajarri has a form in final /m/ like other Kimberley languages. The southern Ngumpin language Warlpiri has a form *warrki* which resembles equivalents in its Arandic and Warumungu neighbours.

Forms with rhotics and final /m/ are widespread throughout the Pilbara and northern Western Australia (see map p250). For example, Nyangumarta has the extra feature of final *-mu* or *-m* on *warrka* followed by a verb which is analysed as free rather than bound:

- Nyangumarta *warrkamu jarrinyi* (intransitive verb). ‘He worked’
- Nyangumarta *warrkamu jini* verb (transitive). ‘He did some work’

The source of this *-mu* or *-m* is complex. Nyangumarta, like many Australian languages, borrows creole verbs along with a form of the transitive suffix *-im* (with an epenthetic final vowel /u/ added), e.g.:

- Nyangumarta *jalamu-ji-rni* ‘S/he sold it’
- Nyangumarta *payamu-ji-rni* ‘S/he bought it’ (Sharp 2004)

Where does this *-m* come from? Nekes and Worms (McGregor 2006:309) propose ‘work come’ as a source, but I have not found evidence for this in recordings of Australian pidgins. Two other possible sources are reanalysis of a hybrid form with the Kriol transitive suffix *-im*, and reanalysis of a hybrid form with a derivational affix from an Indigenous language.

The *-im* analysis is superficially attractive because *-im* is so widespread in borrowed transitive verbs. However, by and large loanwords from ‘work’ are treated as intransitive (or as coverbs or as nouns), unless they are causative ‘make someone work’. Reanalysis of a hybrid form with a derivational affix with /m/ is appealing because many languages have verb formatives in *-ma-*. These are often but not always transitive. The creole transitive *-im* and the verb formative *-ma* (*rnu*) fall together in the northern Ngumpin language Walmajarri:

- (1) *nganpayi-rlu* *pa-0-0* *warrkam-marn-i*⁸
 man-ERG MR1-3SGS-3SGO work-SAY-PAST
 ‘The man worked’ (Hudson 1978:53)

This use of ‘work’ is transitive, as the ergative suffix on ‘man’ shows. The bound verb *ma(rnu)* can occur forming transitive or intransitive verbs. So the source of this transitive verb could be unusually a creole *-im* followed by the transitive marker *-ma-*. Since the sense is primarily a one-participant action, it is possible that second language speakers of Walmajarri reanalysed this form as *warrkam-arni*, and borrowed it into their languages as a coverb *warrkam*⁹ which can combine with a bound verb. Nyangumarta speakers hearing *warrkam* would add a final /u/ before combining it with an intransitive verb *jarrinyi*.

A similar path of borrowing a form derived with an *mV* affix may have led to the final *ma* on the Marri Tjevin *wurlkuma* ‘work’ which Mansfield notes is otherwise inexplicable (Mansfield 2016). An anonymous referee notes that none of the Western Daly languages have a relevant derivational *ma* form, and yet have similar forms for ‘work’ (e.g. Ngan’gi *wurrkama* Reid & McTaggart 2008), which supports a borrowing analysis.

4. Conclusion

The geographical distribution of loan forms for ‘work’, especially those with rhotics and with final /m/, and the distribution of hybrid creations involving ‘work’ (whether morphological or phrasal with coverbs), show several apparent diffusion areas. These may have particular language families at the centre, but may incorporate neighbours from other language families. The relative absence of rhotic forms in the Northern Territory creole suggests that forms and hybrid creations for ‘work’ have spread through bilingual speakers adopting in both their languages forms which were adopted first by speakers of one of the languages. Widespread multilingualism then leads to diffusion of forms over large areas. The next step is then to compare the distribution of other widespread forms, such as ‘turkey’. This will allow us to confirm the existence of diffusion areas. Since the use of a loanword in a speech community has its own history, looking at the adoption and adaptation of the loanwords in particular speech communities will help determine the original locus (or loci) of spread.

⁸ MR1 ‘modal root 1’. *ma-* is the common element in the conjugation of *marnu* ‘say’.

⁹ Another possible path noted by David Wilkins (pers. com. 2012) is a reanalysis that is seen in Arrernte, whereby the /m/ of a creole transitive marker *-im* is reanalyzed to form part of a suffix:

- | | | |
|---------------------------|---------------------------|---|
| • <i>[wash-em]-ileme</i> | ‘wash something’ | transitive |
| • <i>[wash-em]-irreme</i> | ‘wash oneself’ | intransitive of transitive verb |
| • <i>swim[-em-irreme]</i> | ‘swim’ (younger speakers) | intransitive - <i>em</i> reanalysed as an ending together with the intransitive ending <i>-irreme</i> . |

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