

Chapter 12

Privation and Negation: Semantic change in the negative domains of three Australian (Pama-Nyungan) language groups

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On the basis of comparative data in three Pama-Nyungan subfamilies (Thura-Yura, Yolŋu Matha and Arandic), this chapter brings comparative data from the Aboriginal languages of Australia to bear on the Negative Existential Cycle (NEC, see Croft 1991, Veselinova this volume a.o.). I propose a formal semantic analysis of the Cycle, where the, a grammatical category described in many Australian languages (e.g. Dixon 2002), is taken to realise the semantics of a negative existential. Diachronically, I show that erstwhile privatives generalise into sentential negators: an instantiation of the NEC.

Keywords: negation, privatives, existentials, semantic change, Australian languages, quantification

1 Introduction

This chapter brings the observations of the “negative existential cycle” (see Croft 1991, Veselinova 2013, 2016, this volume among others) to bear in the context of the Aboriginal languages of Australia. The Australian language ecology is a fertile area for comparative typological work, given its striking linguistic diversity and small, non-sedentary, frequently exogamous populations (Bowerman 2010). Some 90% ($N \approx 290$) of the languages spoken on the Australian mainland have been reconstructed to the Pama-Nyungan family (see also O’Grady et al. 1966,



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Wurm 1972, Bowern & Atkinson 2012), with a common ancestor spoken in Northern Australia almost 6,000 years before present (Bouckaert et al. 2018).

Taking the negative domains of three Pama-Nyungan subgroups as an empirical testing ground, this chapter describes the relationship between so-called “standard” (SN) and “existential” negation in an investigation of predictions made by a postulated cyclic change: the Negative Existential Cycle (NEC). Here, explicit markers of existential negation¹ emerge (stage $A \rightarrow B$), encroach into the semantic domain of an erstwhile general negative marker (stage $B \rightarrow C$), and finally displace the latter, becoming a standard negation marker without the formal or functional features of an existential negator (stage $C \rightarrow A$; see Croft 1991, Veselinova 2016 a.o.) The Pama-Nyungan data provided here give further evidence for the cross-linguistic validity of the NEC, although, we will also see evidence of contact-induced change in the negative domains of some languages which are not clearly captured by the Cycle.

This chapter is organised as follows: §2 provides an overview of typological generalisations that can be made of negation marking in Australian languages with particular attention paid to the semantics of the category of the so-called “privative case.” §3 investigates evidence of change, replacement and renewal of negative markers in the Thura-Yura language group of South Australia. §4 compares the negative domains of three Yolŋu languages, particularly evidence of expansion in the domain of privative marking in a number of varieties. §5 describes standard negation in Upper Arrernte, situating arguments made elsewhere in the literature (particularly Henderson 2013) that, in this language (and related Arandic varieties), synchronic SN strategies are a result of reanalysis of an erstwhile nominal suffix. Ultimately, a primary upshot of this comparative work trades on an insight, only briefly discussed in work on the NEC (e.g. Croft 1991: 17), that this process (at least insofar as it is actualised in these Australian languages) can largely be understood and predicted with reference to existing work on semantic change (sc. diachronic developments in the meaning of a given lexical item) and work that formally seeks to generalise over grammaticalisation pathways and cycles (e.g. Deo 2015a,b, 2018).² This is discussed in §6.

¹For the purposes of this paper, similarly to others in the current volume, “existential negation” is understood as a linguistic strategy for predicating the *absence* of some entity at a certain location (adapting from Creissels’ (2014: 2) typology of existential constructions, consonant with the approach taken in Veselinova 2013: 139. McNally also points out the relevance of “noncanonical sentence types”, distinguished syntactically or lexically, serving to “introduce the presence or existence of some individual(s)” (2016: 210). See also Freeze 1992 for an analysis that explicitly relates existential to LOCATIVE and POSSESSIVE predications.

²See also the distinction drawn between “functional” and “formal” cycles as applied to the Jespersen’s cycle in Ahern & Clark (2017).

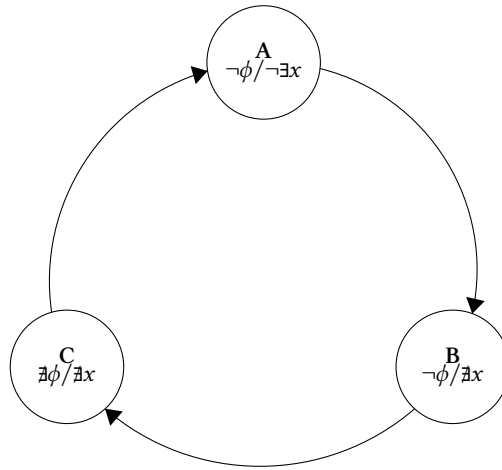


Figure 1: The “Negative Existential cycle” – a typology of standard and existential negation according to the analyticity of these markers (Croft 1991, see also Veselinova 2016.) Standard negators \neg are used to negate both verbal ϕ and existential \exists predicates in stage A, a suppletive “negative existential” \exists arises in stage B and this marker comes to mark standard negation in stage C. “Transitional” stages are assumed to occur between each of the labelled stages.

2 Negation and Australia: a typological snapshot

Strategies that natural languages deploy to mark negation have long attracted the attention of philosophers and linguists (see Horn 1989 for a comprehensive investigation of these questions). More recent work (e.g. Miestamo 2005 a.o.) seeks to propose a typology for the behavior of “standard negation” marking strategies across a sample of world languages (including 40 Australian varieties.) *Standard negation* (SN) is understood as those language-specific mechanisms whose function is the inversion of the truth value of a proposition associated with a given (declarative) clause. Drawing a distinction between SN and “special negation” is warranted in view of the empirical fact that many languages have distinct formal mechanisms for the negation of nonverbal (e.g. copular, existential) predications, imperatives and other types of “subclausal” negation (Miestamo 2007, Horn & Wansing 2017, Veselinova 2013, van der Auwera & Lejeune 2005).

Some 300 Australian languages have been reconstructed to a single family, Pama-Nyungan, spoken across Australia except for some regions in the north of the continent. The most recent common ancestor of these languages is estimated to have been spoken roughly five to six thousand years BP (a similar time depth

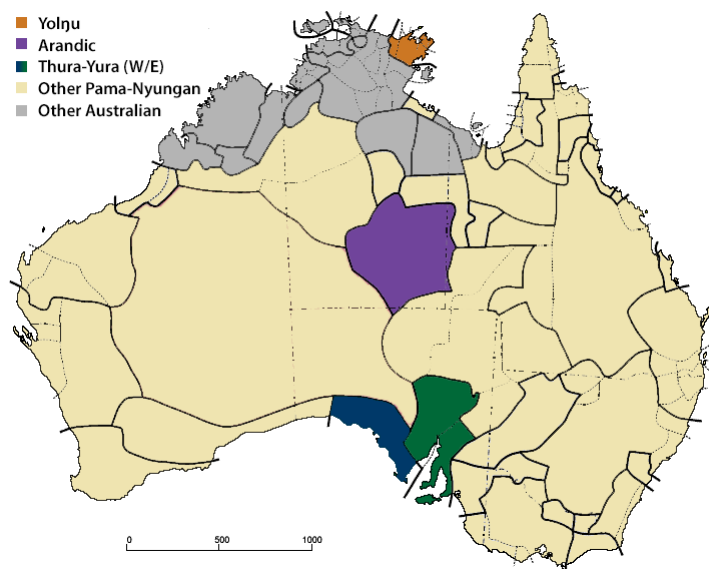


Figure 2: Subgrouping of Australian languages. Pama-Nyungan family is tan, with Yolngu subgroup given in ochre, Arandic in purple and Thura-Yura in blue (Western/Nangga varieties) and green (Eastern varieties.) Map adapted from Dixon (2002: xxviii), coloured by author.

to Indo-European, see Bouckaert et al. 2018: 742). Many of these languages remain underdescribed, and consequently, typological and comparative work detailing the expression of negation across Australian languages is underdeveloped. Exceptions to this include Dixon 2002 and Phillips (forthcoming): surveys that have turned up some generalisations about the formal and functional expression of negation in these languages. Based on the insights of these works, we might divide the “negative semantic space” so to distinguish four macro-categories of negator: (1) negative imperatives/prohibitives, (2) clausal/standard negators and (3) nominal negators, including specialised negative existentials and a commonly occurring “privative” category, and (4) negative interjections. There is a substantial amount of variation in the formal exponence of each of these functions, some varieties distinguishing all four categories (e.g. Bidjara [bym]), some with a single syncretic marker for all four (e.g. Dyirbal [dbl], according to Dixon 2002: 84–table 3.3).

An exceptionful (but otherwise fairly robust) formal tendency across Australian languages is for clausal negation to be marked with a particle pre-verbally and for privative case to be encoded as a nominal suffix. We will explore the implications of this generalisation and its exceptions below. The remainder of this

section constitutes a brief survey the exponents of negation strategies in Australian languages, partially summarising insights from Phillips (forthcoming).

2.1 “Standard” negation

This section briefly provides some generalisations about clausal negation strategies in Australian languages. For a more comprehensive discussion of exceptions and significant interactions between SN and other aspects of the verbal complex in Australian languages, the reader is referred to Phillips (forthcoming).

Dixon (2002: 82) claims that “almost every Australian language marks ‘not’ by a non-inflecting particle which goes before the verb.” He notes that this generalisation extends also to the most synthetic non-Pama-Nyungan languages spoken in the north of the continent. Negation in the Arandic subgroup of Pama-Nyungan, which provides a major exception to this formal generalisation, and is particularly relevant for current purposes, is discussed in more detail in §5. The data from Ngiyambaa ([wyb] Pama-Nyungan: Wiradhuric) below clearly demonstrate this generalisation with the preverbal SN particle *wana:y*, which has scope over the entire sentence in (1a) and just the second predicate in (1b).

- (1) Preverbal standard negation in Ngiyambaa (Donaldson 1980: 239)

- a. *Wana:y yingala:-dhi=dju=na girimiyi-la.*
 NEG same-CIRC=1.NOM=3.ABS wake.PST-THEN
 ‘It wasn’t because of that I woke her then.’
- b. *Yingala:-dhi=dju=na wana:y girimiyi-la.*
 same-CIRC=1.NOM=3.ABS NEG wake.PST-THEN
 ‘Because of that I didn’t wake her then.’

2.2 The “privative case” and existential predications

The privative case (PRIV) is a very robustly attested category in Australian languages.³ Broadly speaking, it predicates the absence of some property denoted by the noun that it associates with, although the precise semantic domain associated with this category varies considerably across languages (cf. arguments for the predicative status of negative existential markers in Veselinova 2013: 139). In Nyangumarta ([nna] Pama-Nyungan: Marrngu), for example, *-majirri* ‘priv’ can be used to predicate absence, i.e. as a negative existential, see (2a). Muruwari

³Morphological cases with similar semantics are referred to as *abessive* and/or *caritive* in other literatures (e.g. for Uralic in Hamari 2011, 2015, Tamm 2015). “Privative” is ubiquitous in Australian language description and will be used here throughout.

([zmu] Pama-Nyungan: SE) similarly makes use of a form *-kil~-til~-tjil*, shown in (2b-c).⁴ PRIV case markers are frequently antonymous to another case suffix, frequently occurring in Australian languages, usually glossed as the comitative (COM), proprietive (PROP) or ‘*having*’ case. Uses of this marker are given in (3). The apparent synonymy of (2b) and (3b) show the antonymous relation between comitative and privative predication.

(2) Negative existential function of PRIV

a. Nyangumarta

mungka-majirri karu-majirri-pa paru-majirri jungka jakun
tree-PRIV stream-PRIV-CONJ spinifex-PRIV ground only

‘There were no tree, creeks, or spinifex; only the ground (in that country.)’ (Sharp 2004: 140)

b. Muruwari

palanj mathan-kil
nothing stick-PRIV

‘(There are no) sticks [...nothing]’ (Oates 1988: 77)

c. Muruwari

ngapa-kil-pu-n
water-PRIV-3sg-NMLZ

‘He has no water.’ (lit. ‘he-waterless’) (Oates 1988: 78)

(3) Existential function of COM

a. Muruwari

thuu kuya-yita wartu
much fish-COM hole.ABS

‘The river has a lot of fish in it.’ (=There’s a lot of fish in the river)
(Oates 1988: 73)

b. Muruwari

wala mathan-pira
NEG limb-COM

‘(There are) no sticks.’ (Oates 1988: 74)

⁴Oates (1988: 77) describes this suffix as the ABESSIVE: ‘the opposite of the comitative in that it signifies ‘lacking’ or ‘being without’ some person or thing.’ She glosses it throughout as ‘lacking.’

Australian languages have a number of strategies to express existential and non-existence (absence) predications. (2a) shows the Nyangumarta privative marker functioning as an existential negator: it predicates the absence of streams, trees and spinifex (a culturally important tussock grass) of a particular location. Additionally, *contra* a prediction made by Croft (1991: 19), there are many Australian languages for which it is the case that “an existential sentence [can] consist solely of the noun phrase whose existence is predicated.” An example of bare NP existential predication is also given in (2a), where the existence of *jungka* ‘[bare] ground’ is predicated.⁵ These facts immediately present a challenge to the (formal) negative existential cycle as formulated: if existence predicates are frequently verbless, there is no way to formally distinguish between stages A and C on the basis of synchronic data. I know of no Australian language with a *reserved* existential verb; like copular clauses, existence predications appear to frequently make use of a stance or motion verb (most frequently one that primarily means ‘sit’ or ‘lie’ and often polysemous with ‘stay, live’), or are otherwise verbless.⁶

Relevantly for current purposes, the semantics of the privative suffix can be instructively captured by adapting existing analyses of existential propositions (e.g. Francez 2007, McNally 2011). These analyses generally characterise existential predication as containing obligatorily that thing whose existence is being predicated (the *PIVOT*) and some restriction (perhaps locative) on its existence (the *CODA*; see Francez 2007). Adapting Francez’s analysis would mean treating privative noun phrases as generalised quantifiers of nonexistence. This is consonant with Croft’s (1991: 18) observation about the privileged status of existential predication (as a logical quantifier as opposed to the one-place predicates of other stative verbs), which forms the basis for a functionalist explanation of the “constant renewal” of negative existentials at stage *B* of the NEC (see also Veselinova 2016: 173). A truth-conditional analysis of one privative-marked noun from (2a) is provided in (4) below; each step is spelled out in prose.

- (4) a. *mungka-majirri*
tree-PRIV

⁵Such constructions have also been reported elsewhere in the literature, e.g. for Māori [mao] where “‘existence’ statements have no copula or existence verbs” (Bauer 1993: 78, cited by Chung & Ladusaw 2004 a.o.). Similarly, sign languages tend to allow bare-NP existential predication (see de Weert 2016: 26ff on Flemish and Finnish sign languages.). Even Marra [mec] (a language cited in Croft 1991: 14) appears to permit bare NP existentials, if Heath’s (1981: 364) translations are to be trusted.

⁶Notable, however, is the fact that these stance/motion verbs often lend particular semantic nuances to the copular and existential predications in which they participate (see e.g. Wilkinson 1991: 610–611).

- b. $\mathbf{no} = \lambda P_{\langle e,t \rangle} \lambda Q_{\langle e,t \rangle} . P \cap Q = \emptyset$ (e.g. Barwise & Cooper 1981: 169)
 The function **no** takes two properties P, Q and returns a “true” if there is nothing in the domain which is in the intersection of those two sets.
- c. $\llbracket \textit{mungka-majirri} \rrbracket = \lambda P_{\langle e,t \rangle} [\mathbf{no}(\lambda x [\mathbf{Tree}(x)], P)]$
 The privative-marked NP *mungka-majirri* ‘tree-PRIV’ is a generalised quantifier: it states that there exists nothing in the domain in the intersection of the set of trees ($\lambda x. \mathbf{Tree}(x)$) and some other property that is provided by the context of utterance (sc. Francez’s *contextual domain* d_α (2011: 1838)).
- d. $\llbracket \textit{mungka-majirri} \rrbracket^c = \mathbf{no}(\lambda x [\mathbf{Tree}(x)], \lambda y [\mathbf{loc}(st_c, y)])$
 In the absence of an explicit/linguistically-encoded “coda” (i.e. locus/restrictor) for the privative (i.e. a “subject” NP of whom the privative-property is being predicated), the context of utterance provides an additional restriction as the second argument to **no**. This restriction may take the form of a function that returns a set of things related to some spatiotemporal parameters indicated by context [viz. the contextually salient place and time being predicated about, some particular “country” in the past according to Sharp’s translation].
 $d_{st_c} = \lambda y_e . R(\text{‘that country’}, y)$

If we treat privative marking on NPs as a type of negative existential predicate, a consequence of the NEC is the prediction that these markers ought to eventually generalise, displacing an erstwhile standard negator (i.e. PRIV markers will participate in the NEC.) Phonological identity between privatives and SN is indeed well-attested in Australia (e.g. Bardi [bcj] (Bower 2012) and Warrongo [wrg] (Tsunoda 2011).) In these languages, negative existential/privative predication may be syntactically distinguished from standard clausal negation by placing the general NEG particle post-nominally instead of preverbally (see 5, 6a–b below.) A possible example of a postnominal existential negator acquiring the function of clause-initial standard negator is found in Wirangu ([wgu] Pama-Nyungan: Thura-Yura). This case is described in §3 below along with a discussion of its potential import for theories of the NEC.

- (5) Negation in Warrongo ([wgu] Pama-Nyungan: Maric)
- a. Sentential negation with initial *nyawa* ‘NEG’
nyawa ngaya balga-lgo banjo-lgo.
 NEG 1sg.ERG hit-PURP ask-PURP
 ‘I will not hit [him]. [I] will ask [him].’ (Tsunoda 2011: 363)

- b. Existential negation with postnominal *nyawa* ‘NEG’
nyawa, yarro walwa yamba. yori nyawa, gajarra nyawa
 NEG this bad country kangaroo NEG possum NEG
worriba nyawa, barrbira nyawa, jagay nyawa
 sugarbag.bee NEG echinda NEG sand.goanna NEG
 ‘No, this country is no good. There are no kangaroos, no possums, no
 bees, no echidnas, no sand goannas [in my country].’
 (Tsunoda 2011: 661)

3 Thura-Yura: change and renewal in the negative domain

Thura-Yura is a Pama-Nyungan language family, with nine documented varieties historically centered on and around the South Australian coast. The Western varieties of these languages about the Wati (Western Desert) family. Figure 3 describes the familial relations of the described Thura-Yura languages whereas Table 1 compares their negative lexica (including a possible reconstruction). Examples of Wirangu negative predication are given in (6) below.⁷

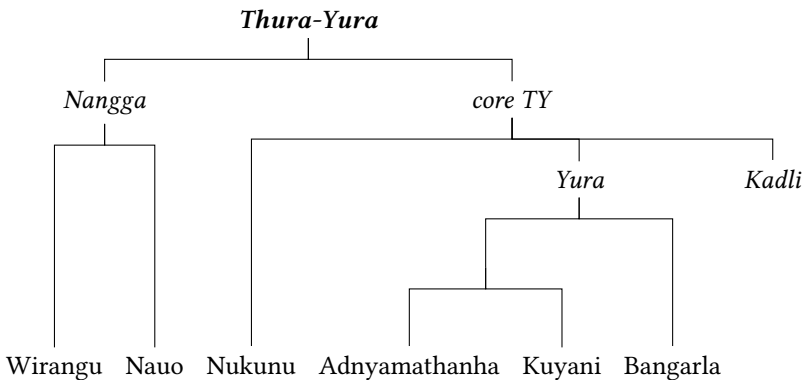


Figure 3: A selection of the internal structure of the Thura-Yura family (spoken in South Australia) following Simpson & Hercus 2004: 183.

Table 1 shows (colour-coded) four of the negative-associated lexical items in the Thura-Yura family, each of which will be discussed here. It allows for a probable reconstruction of a standard negator (or nominal negator) **maka* and/or

⁷Note that Hercus (1999: 57) describes a number of other markers with negative import in her Thura-Yura grammar (including two other lesser-used privatives, which she regards as older. Cf. Veselinova's (2016: 173) "constant renewal of the negative existentials."

Table 1: Reported partitions in the negative semantic space (data adapted from Hercus 1999, 1992, Schürmann 1844, Hercus & Simpson 1996, Black 1917.) Colouring reflects hypothesised cognacy of lexical items across Thura-Yura. Dashed arrows represent borrowings from neighbouring languages, full arrows semantic (functional) change.

	(WATI)	NEG.EX/PRIV	SN	‘cannot’/‘not yet’
Wirangu [wgu]	→ -yudu	-maga → -maga		guda
Nauo [nwo]		?	makka	
Bangarla [bjb]		-maga	makka	kutta
Adnyamathanha [adt]				
Kuyani [gvy]	→ pari-		(g)uda	–
Nukunu [nnv]		-wakanha		
proto-TY			*maka/*guda	
DIYARI? ([dif] Karnic)				

SN *guda in the ancestral language. Of Wirangu [wgu], Hercus (1999: 57) claims that privative morpheme -yudu has entered the language as a borrowing from the Kokata language, a Western Desert dialect spoken in neighbouring territories to the North ([ktd] Pama-Nyungan: Wati). -yudu has largely displaced -maga as the form of the privative. The recruitment of a distinctive privative form (from lexical resources of a neighbouring, unrelated language) may well be taken as evidence of pressure for the privileged marking of negative existentials that is taken to motivate the beginning of the NEC (sc. stage transition A → B).

(6) Examples of Wirangu negation strategies (from Hercus 1999)

- a. maga SN
Warlba marnaardu-nga maga wina-rn!
wind big-LOC NEG go-PRS
‘(I am) not going out in a gale!’ (142)
- b. -maga privative
Nganha gidya-maga.
1sg child-PRIV
‘I haven’t got any children.’ (57)

- c. **-yudu privative** (“most commonly used”)
Nganha barnda-yudu.
 1sg money-PRIV
 ‘I haven’t got any money.’ (57)
- d. ***guda SN (modalised)**
Ngadhu guda wangga-rn.
 1sg.ERG NEG.IRR speak-PRS
 ‘I can’t talk (about this; it’s too embarrassing.)’ (143)

Similarly, Adnyamathanha [adt] and Kuyani [gvy] have recruited *pari-* as a negative existential/predicator of absence (Hercus 1999: 141). This may also be a borrowing from the Karnic languages that about Eastern Thura-Yura (e.g. Diyari [dif] *pani* ‘PRIV’, (Austin 2011, C. Bown p.c.).⁸ *maga* retains its function as the primary standard negator particle in Wirangu (and Bangarla [bjb]), whereas *guda* (the standard negator in Adnyamathanha and Kuyani), is restricted to a subset of negative meanings ‘cannot’ and ‘not yet’ (note that, particularly in northern Australia, the form of negative marking is often conditioned by speaker mood/reality status, see Miestamo 2005: 225, Phillips forthcoming.)

A potential cognate in the southern Thura-Yura (Kadli) language, Kurna [zku] (not represented in Figure 3 for a lack of available data) *wakka-* is found (possibly fossilised) in lexical items *wakkarendi* ‘err, stray, be lost’, *wakkariappendi*, ‘forget, not think of, leave behind’, *wakkariburka* ‘ignorant person, simpleton’ (Schürmann & Teichelmann 1840: II–52).⁹ All three of these words appear to be analysable; *wakka-* contributing some notion of emptiness, characteristic of an erstwhile nominal negator/privative category.¹⁰

There are insufficient available data to adjudicate between competing hypotheses that (a) **guda* has been largely displaced by erstwhile nominal negator *maga*

⁸This remains to be demonstrated, but *pari-* may otherwise be cognate with Wirangu *bal-* ‘die’, elsewhere described as a lexical source for negators (Veselinova 2013, van Gelderen 2022 [this volume]). An argument potentially in favour of this is found in a possibility of an example of lexical renewal likely born of euphemism; Adnyamathanha *inta-* ‘die’ appears to be cognate with Wirangu *inda-* ‘spill’.

⁹Note attested stems in *pia-rendi* ‘scattered, stray’, *pia-riappendi* ‘scatter, disperse’, *burka* ‘adult, man’ (Schürmann & Teichelmann 1840: II–4,38).

¹⁰Data for Kurna (and other extinct varieties) is scarce, effectively limited to the lexicon published by nineteenth-century missionaries, Schürmann & Teichelmann (1840). A possible reflex of **guda* is found in items like *kudmunna* ‘ignorant, not knowing’ (II–12). Other negative lexical items reported here are *yakko* which appears to function as a SN marker and *-tinna* which is given as the most frequent form of ‘without’ (i.e. the privative).

in Wirangu or (b) *guda* has replaced **maka* in Adnyamathana/Kuyani. Nevertheless, an analysis informed by the insights of the NEC favours and supports (a).

Under such an analysis, Wirangu – the Thura-Yura outlier – provides a particularly clear example of a language, the negator forms of which are transitioning through the NEC. The erstwhile negative existential *-maga* has entered the domain of standard, clausal negation, adopting the morphosyntactic properties of a preverbal negative (stage $B \rightarrow C$), and triggering the recruitment of a new privative marker from the lexical resources of a neighbouring language *-yudu* which is now in competition with the old marker (stage $A \rightarrow B$). The ostensible simultaneity of these changes also provides further evidence for competition between functional and formal pressures for generalisation and recruitment (sc. Veselinova’s “constant renewal of the negative existential” (2016: 173)).

Additionally, if the directionality of change described here is indeed on the right track, Wirangu can be shown to resist classification into any unique NEC “stage”, transitional or “cardinal” (in which case the NEC as described in previous work does not represent a complete linguistic typology for negative existential marking strategies.)

4 The Yolŋu negative domain

The Yolŋu languages, a Pama-Nyungan grouping of at least six dialect clusters (roughly coterminous with sociocultural groupings) are spoken through Eastern Arnhem Land (in the far north of the continent) by some 12,000 Aboriginal inhabitants (see Wilkinson 1991: 18ff, Bower 2009). Yolŋu are strictly exogamous – each cultural group (clan) being associated with a distinct dialect, a situation that has led to a significant amount of stable linguistic variation (and undetermined internal classification, see Schebeck 2001, Bower & Atkinson 2012: 836).

This section compares the negation systems of three distinct Yolŋu varieties: Djambarrpuyŋu [djr], Ritharrŋu [rit] and Wangurri [dhg] in view of making inferences about change in marking strategies over time. A pattern not dissimilar to that observed in Thura-Yura is shown. The key findings are tabulated in Table 2 below. The final subsection (§4.4) comprises a discussion of privative case semantics with particular reference to Yolŋu.

4.1 Djambarrpuyŋu

Djambarrpuyŋu [djr] appears to provide an example of Croft’s $B \sim C$ transitional-stage language. Wilkinson (1991: 356) describes the coexistence of two markers:

Table 2: Partitioning of the negative space in some Yolŋu languages. ‘PROH’ negates imperatives. ‘PRIV’ is taken to denote a suffix of the type described above. ‘NEG.EX’ (Wilkinson’s NEG.QUANT) are independent words that appear to quantify over the NP which they precede.

	PROH	SN	NEG.EX	PRIV
Djambarrpuyŋu [djr]	<i>yaka</i>	<i>yaka</i> <i>bäyŋu</i>	<i>bäyŋu</i>	<i>-miriw</i>
Ritharrŋu [rit]	<i>yaka</i>	-‘may’	<i>yakaŋu</i>	<i>-miriw</i>
Wangurri [dhg]	<i>yaka</i> <i>ŋangawul</i> <i>bayaŋu</i>	? <i>yaka</i> <i>ŋangawul</i> <i>?bayaŋu</i>	<i>ŋangawul</i> <i>bayaŋu</i>	<i>-nharra</i>

yaka ‘NEG’ and *bäyŋu* ‘NEG.QUANT’ (negative quantifier): claiming that “both occur as propositional negators,” demonstrated in the data in (7) below, from Wilkinson (1991).

- (7) a. *yaka* as (full) clausal negator
yaka *ŋayi dhu ga* *ŋutha-n ŋandi-wal* *bäpa-wal*
 NEG 3sg FUT IPFV.INFL grow.I mother-OBL father-OBL
 ‘They don’t grow up with (their) mother and father.’
 (Wilkinson 1991: 691)
- b. *yaka* as negator in copular construction
yaka *dhuwali ŋatha, dhuwali ŋula nhä-n* *dhuwali botjin*
 NEG MED food MED INDF what-SEQ that poison
 ‘That isn’t food, that’s something else, that’s poisonous.’
 (Wilkinson 1991: 560)
- c. *yaka* as negator in possessive construction
warrakan limurrŋ *yaka* *dhuwal*
 animal 1pl.INCL.DAT NEG PROX
 ‘This meat isn’t ours/for us.’ (author’s fieldwork; AW20190505)
- d. *bäyŋu* as clausal negator
bäyŋu *ŋarra gäthur ŋorra-nha manymak-ku-nha munhawu*
 NEG.QUANT 1sg today lie-INFL good-TR-INFL night
 ‘I didn’t sleep well last night.’
 (Wilkinson 1991: 357)

The distributional difference between these two markers is twofold. According to Wilkinson, *yaka* is ungrammatical in quantificational contexts and that *bäyŋu* does not appear in imperative (i.e. prohibitive) contexts. It seems, then, likely, that in Djambarrpuyŋu, *bäyŋu*, an erstwhile negative existential has begun to encroach further into the negation space, entering into competition with *yaka*. *bäyŋu*, with reflexes in other Yolŋu languages, derives from (fairly productive) verbal root *bäy*- ‘leave’.¹¹ Examples of negative existential uses of *bäyŋu* are given in (8) and prohibitive uses of *yaka* in (9).

- (8) Djambarrpuyŋu negative quantification
- a. (**yaka*/)*bäyŋu* *ɲarra-ku gi ɲorri ɲula dhiyal wāŋa-ɲur-nydja*
*NEG/NEG.QUANT 1sg-DAT IV LIE:IV INDF PROX.LOC place-LOC-FOC
'I don't have any here.' (lit. 'at this place lie (are) none of mine')
(Wilkinson 1991: 691)
- b. *bili* (#*yaka*/)*bäyŋu* *limurruŋ dhuwal bawarran*
because #NEG/NEG.QUANT 1d.INCL.DAT PROX animal
Intended reading: 'Because there's no meat for us.'
(Wilkinson 1991: 560, infelicity judgment AW20190505, cf. 7c)
- (9) Djambarrpuyŋu imperative negation (prohibitive, see also §4.4)
- yaka*/(#*bäyŋu*) *wari!*
NEG/(#NEG.QUANT) talk.II
'Don't talk!' (Wilkinson 1991: 360)

There are multiple arguments for a reconstruction of **yaka* to proto-Yolŋu. First, the fact that it is reported as a negative particle in all Yolŋu languages (Schebeck 2001: 31).

Secondly, possible lexical cognates are reported in likely sisters to Yolŋu in the Western Pama-Nyungan subfamily (a monophyletic branch reconstructed in Bower 2012: 838). Sharp (2004: 226) and O’Grady (1963: 67) both report a Nyangumarta ([nna] W. Pama-Nyungan: Marrngu) verb *-yaka-* meaning ‘leave, quit’. McKelson (1974: 35) additionally gives *yaga* as an alternative (potentially emphatic) negative particle in Mangala ([mem] Marrngu). It is very possible that these Marrngu verbs are cognate with the Yolŋu negator, despite Marrngu and Yolŋu having been distantly separated for centuries. Dixon (2002: 85) lists other potential cognates to negative *yaka* from a number of other dispersed Pama-Nyungan languages.

¹¹Note also that *-Thi* 'INCH' derives absence-associated change-of-state readings: *bäy-thi* 'be left over/behind'; *bäyru-thi* 'be/have none, pass away, die' (Wilkinson 1991: 378).

Thirdly, the generalisations of the NEC as formulated by Croft (1991) and Veselinova (2016) a.o. provide a principled typological basis through which an erstwhile negative existential construction arises in a language and begins to encroach upon the functional domain of a standard (clausal) negator (transitional stage $B \sim C$). If this diachronic analysis is on track it may have implications for our understanding of the characteristics of stage $B \sim C$: negative imperatives (prohibitives) being one of the last “holdouts” for an erstwhile SN marker that is threatened by competition from a negative existential or quantifier. Dixon’s typology (2002: 84) indeed entails an implicational relationship: if there is formal syncretism between privative and prohibitive marking, then these will be syncretic with the SN marker as well. Gumbaynggir ([kgs] Pama-Nyungan: South-east; Eades 1979) and Nyawaygi ([nyt] Pama-Nyungan: Dyirbalic; Dixon 1983) are given as examples of a languages for which the prohibitive patterns distinctly from all other negative functions (a datum which is a potential indicator of a language in NEC stage $B \sim C$). The Ritharrŋu data presented in §4.2 below raise a potential counterexample.

4.2 Ritharrŋu

The facts outlined in Heath’s (1980) description of **Ritharrŋu** [rit] diverge in a number of significant ways from the Djambarrpuyŋu situation described above. Further, they appear to pose a potential problem for the generality/predictive power of the NEC as formulated.¹² While a form *bayŋu* has been retained in the language (glossed as ‘nothing’), there is an additional suffixal form *-’may’* used as the “basic” (Heath 1980: 101) general negator alongside *yaka* (the latter form is the standard means of forming prohibitives in Ritharrŋu, shown in 11).

(10) Standard and copular negative suffixation of *-’may’* in Ritharrŋu

- a. *wāni-na-’may’ napu*
 go-PST-NEG 1pl.EXCL
 ‘We didn’t go.’

- b. *munəŋa-’may’ rra*
 white.fellow-NEG 1sg
 ‘I’m not white.’

(Heath 1980: 101)

¹²Data provided from Heath (1980) has been standardised to an Australianist (Yolŋu) orthography from his original IPA transcription.

- (11) Prohibitive formation with *yaka* in Ritharrŋu

yaka nhe baŋgurl'-yu-ru

NEG 2sg return-them-FUT

'Don't come back!'

(Heath 1980: 76)

Existential negation, however, is introduced by the complex form *yaka-ŋu* (shown in (12) below). This form is clearly related to the Djambarrpuyŋu SN particle described above, with archaic Yolŋu suffix *-ŋu* (described as an "adjective \Rightarrow substantive" derivation by Schebeck 2001: 34, see also Wilkinson 1991: 174ff, Heath 1980: 24.) Heath glosses *yakaŋu* as a particle meaning 'absent' (1980: 102).¹³ Recalling the possible lexical sources of pan-Yolŋu form (Table 2 supra) **yaka* discussed in the foregoing section, this is an appropriate translation.

- (12) Existential negation with *yakaŋu* in Ritharrŋu

a. *yakaŋu ŋay dhāŋgu*

NEG.EX 3sg meat

'There's no meat.'

(Heath 1980: 102)

b. *yakaŋu ŋay (yaŋ'ŋara)*

NEG.EX 3sg (here)

'He isn't here.' (Heath 1980: 102)

While it may be tempting to relate *bäyŋu*, as found in other Yolŋu languages, to a possibly lenited form *-'may'*, as Heath (1980: 102) points out, it is much more likely to be a borrowing from the geographically neighbouring language Ngandi [nid], an unrelated, non-Pama-Nyungan language also spoken in south-eastern Arnhem for which *-?may* is a fusional negative-cum-present tense suffix. Given the structure of the negative domain in Ritharrŋu (i.e. the use of *-'may'* in (zero-)copular clauses (10a) and its apparent unavailability to quantification/existential predication) provides support for the borrowing account, which is considerably more parsimonious than an account by which the syntax, semantics, phonology and perhaps morphology of *bäyŋu* were radically reorganised into a SN suffix. If this is indeed the case, it provides counterevidence to the hypothesised unidirectionality of the NEC (e.g. Veselinova 2016: 146) given that an

¹³Note that Heath also points out that stance predicates with copular/existential readings can also receive negative marking as in (13) below.

(12b') *nhiena-'may' ŋay yaŋ'-ŋarra*

sit.PRES-NEG 3sg here

'He isn't (sitting) there.'

(Heath 1980: 102)

innovative *standard negator* has been recruited into Ritharrŋu's negative space, whereas the so-called "special negators" have retained an older form (Figure 4).

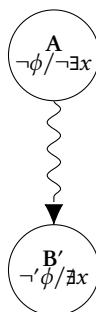


Figure 4: Not predicted by the NEC, Ritharrŋu appears to have recruited an innovative clausal negator \neg' into negative space. This is likely to be an effect of extended contact with an unrelated non-PN language (Ngandi [nid]).

Whatever the providence of \neg' , this is the marker of standard clausal negation whereas existential negation appears to be obligatorily marked by *yakanu*. Incidentally, on the basis of the limited data presented here, Ritharrŋu, a language closely related to Djambarrpuyŋu, might *synchronically* be described as a stage *B* language *per* the negative existential typology described in this volume, although such a description plasters over the likely diachronic trajectory of Ritharrŋu negative marking.

4.3 Wangurri

Finally, negation in **Wangurri** [dhg], a northern Yolŋu dialect, appears to make use of an additional particle with the semantics of a general negator, *ŋangawul* in addition to *yaka* and *bayanu*. McLellan (1992: 195) claims that *ŋangawul* and *bayanu* can be used in all negative contexts and that *yaka* cannot be used as a "negative quantifier." These data are exemplified in (13) below, all adapted from McLellan (1992).

- (13) a. Negative existential use of *ŋangawul*
gulitj-ma ŋangawul-nha ŋanapilingura ŋapa-ŋa gayŋa nyena
 true-DP NEG-DP 1pl.EXCL:LOC back-LOC IPFV.IV sit.IV
 'No true ones at our backs are living (i.e. descendants.)' (246)

- b. Clausal negation use of *ɲangawul*
ga ɲangawul ɲaya barpuru nhawun ɲunhuŋ yolɲu-wuŋ ɲäku
 and NEG 1sg recently like that.ABL person-ABL hear.IV
dhäwu
 story
 ‘I didn’t recently hear the story about that person.’ (136)
- c. Negative imperative with *yaka*
Yaka dhaŋu ɲäpiki’-murru garruwa
 NEG this white.person-PERL speak.IMP
 ‘Don’t talk through white (language)!’ (195)
- d. Negative imperative with *ɲangawul/bayaŋu*
ɲangawul/bayaŋu ɲäpiki’-murru-m garrun,
 NEG/NEG white.person-PERL-DP speak.INFL¹⁴
bayaŋu/ɲangawul!
 NEG/NEG
 ‘Don’t talk through white (language), no!’ (195)
- e. Potential ambiguity between standard and negative existential readings with *ɲangawul*
ɲangawul-nha ɲaya rakaran nhangul
 NEG-DP 3sg tell.PFV 3sg.ALL
 (i) ‘I told him nothing.’ (≈ ‘There is no thing such that I told him that thing.’)
 (ii) ‘I didn’t tell him’ (≈ ‘It’s not the case that I told him [that thing.]’) (196)

The Wangurri data show competition between three separate markers and provide a series of interesting insights and questions in view of predictions the NEC would make. The domain of *bayaŋu* (cognate with *bäyɲu* as described above) has further expanded into the prohibitive domain, behaviour that, taken in isolation, may suggest that this marker has moved further along the cycle drawing Wangurri further towards a C-type system (characterised by the availability of ambiguous readings shown in 13e).

Nangawul appears to be an innovation, it has an unclear etymology and stands in no obvious relation to a potential cognate in any related or borrowing from

¹⁴It is unclear whether the difference in verb inflection between *yaka*- and *ɲangawul*-/*bayaŋu*-prohibitive is categorical. If it is, this may be construed as additional evidence that the use of *ɲangawul*-/*bayaŋu* for prohibitive formation is a more recent innovation (and consequently does not trigger the relatively infrequent imperative inflection).

any neighbouring language. Given its wholesale entry into the negative domain – that is, this lexical item’s ability to negate verbal clauses, existential clauses and imperatives, it is unlikely that the grammaticalisation of this item taken in isolation can be marshalled as evidence of the NEC. Further research on Northern Yolŋu has the potential to shed light on the change in available readings associated with *ŋangawul*, but until that point, our best hypothesis may be one of lexical replacement, where *ŋangawul* analogistically replicates the domain of the (likely older) negator *bayaŋu*, whose emergence in Yolŋu was described in §4.1.

The manifestation of the NEC in Yolŋu is further nuanced below, when we consider additional competition from privative morphology in these languages.

4.4 The PRIVATIVE in Yolŋu

All Yolŋu languages make regular use of a *privative* suffix ‘PRIV’. For most languages, the phonological form of this marker is *-miriw* (see Table 2). The only exceptions to this are found in Dhaŋu-Djaŋu ([dhg], including Wangurri), for which the form is *-nharra* (Schebeck 2001: 34) and Yan-nhaŋu [jay] *-nharraŋu* (C. Bower, p.c.). This latter form may be cognate with the Warluwarra [wrb] and Bularnu [yil] (Pama-Nyungan: Warluwaric) privative *-nharra(ŋu)*. Warluwaric is given by Bower & Atkinson (2012) as the most likely closest sister node to Yolŋu in Western Pama-Nyungan. If this is the case, then ***nha-* can be reconstructed as a WH-particle to these subgroups’ most recent common ancestor (cf. Breen n.d.: 576). It is used as the basic root WH-words and indefinites (e.g. *nhä*_[dhg]; *nhangarli*_[yil] ‘what, something’) in Yolŋu and Warluwaric. *yarraba* shows up in Bularnu in some contexts as a word for ‘nothing’ (Breen n.d.: 626, 690) – the univerbation of ***nha* and ***(y)arra* into some type of negative indefinite is therefore a possible source for the *-nharra* privative.¹⁵

The etymology for *-miriw* is unclear (although it possibly stands in some relation to *miḍiku(?)* ‘bad’_[rit], ‘rubbish (incl. a sororal kinship relation)’_{[DJR]/[GUF]} and appearing in words like *miḍik-uma* ‘make.badly’ *miḍik-irri* ‘go.badly’, *noy-miḍiku’ŋu* ‘feel-sad’ etc.) In view of the facts above, we have reason to reconstruct a proto-Yolŋu privative **-nharra*, replaced by innovative *-miriw* in the bulk of contemporary (viz. non-Northern) varieties.

In §2.2 above, we saw a potential semantics for canonical uses of privative marking. This semantics, which understands the privative as a quantifier that

¹⁵Further support for this etymology comes from Wakaya ([wga] Warluwaric) *-nhawerru* ‘PRIV’ (Brammall 1991: 36). *-werru* is the Wakaya propriative marker (<Proto-Warluwaric **-warra* ‘PROP’); consequently, *-nha-* seems to have acquired some type of negative semantics.

predicates nonexistence of the NP in its scope, restricted to a domain that is provided elsewhere in the discourse, suitably captures nonexistence, absence, and non-possession readings of privative NPs. This semantics for the “canonical privative”, however, papers over the significant degree of semantic variation in markers described as “privatives” in the Australianist descriptive tradition. Djambarrpuyŋu *-miriw* appears felicitous in the broad range of contexts shown in (14) below.

- (14) A broad range of meanings available to Djambarrpuyŋu [djr] *-miriw* ‘PRIV’
- a. *-miriw* predicating non-possession
weyin muka ŋarra dhuwal nhinana-ny yothu-miriw
long okay 1sg PROX sit.-INFL-FOC child-PRIV
‘for a long time I lived here without children’ (Wilkinson 1991: 445)
 - b. Privative use of *-miriw*; synonymous with *bäyŋu* ‘NEG.EX’
yolŋu-ny gan nhinan warranul bala’-miriw, bäyŋu
people-PROM IPFV.IV sit.INFL outside house-PRIV NEG.QUANT
bala’
house
‘People used to live outside without houses, there were no houses.’
(Wilkinson 1991: 443)
 - c. Negative existential use of *-miriw*
bili yätkurr ŋunha wäŋa warralŋur-nydja gapu-miriw
because bad DIST land NAME-FOC water-PRIV
‘...because the place is bad. (It’s) without water.’ (= there’s no water)
(Wilkinson 1991: 443)
 - d. *-miriw* predicating the absence of a de-verbal property
maŋutji ŋorra-nha-miriw ŋunhayi wäŋa
eye lie-INFL-PRIV DIST.LOC place
‘It’s impossible to sleep at that place.’ (Wilkinson 1991: 448)
 - e. Privation of a de-verbal relation
luka-nha-miriw ŋayi nunhi dharpa-ny
eat-INFL-PRIV 3sg TEXT tree-PROM
‘That tree is not edible.’ (Wilkinson 1991: 446)
 - f. Privation of an eventive de-verbal relation
djamarrkuli-y’ marrtji lakaram badatju-na-miriw
children-ERG go.I speak.I make.mistake-INFL-PRIV
‘The children were speaking without making mistakes.’ (Wilkinson 1991: 449)

- g. *-miriw* in a subordinate clause: privation of a de-verbal property/disposition
 ...ga yolŋu-wal-nha ŋuri-kal-nha wāŋa nhā-nha-***miriw***-wal-nha
 and person-OBL-SEQ ANAPH-OBL-SEQ place see-INFL-**PRIV**-OBL-SEQ
miltjiri-wal-a
 blind-OBL-SEQ
 ‘...and to the person who cannot see the place, the blind.’ (Wilkinson 1991: 448)
- h. Negative predication (locative)
Context: A response to the question ‘is it inside?’
yaka, djinawa’-miriw
 NEG, inside-**PRIV**
 ‘No, it isn’t inside.’ (Wilkinson 1991: 445)
- i. Prohibitive use
luka-nha-miriw-nha dhuwali-yi-ny dhulŋuŋu-n ŋatha
 eat-INFL-**PRIV**-SEQ there-ANAPH-PROM assigned-SEQ food
 ‘Don’t eat it, that food is for someone else.’ (Wilkinson 1991: 446)

The data in (14) are extremely relevant for current purposes. They show how the semantic domain of the **PRIV**, a lexical item with the semantics of canonical negative existential, has expanded (such uses of **PRIV** are reportedly ungrammatical in other varieties, including Yan-nhangu [Jay], Claire Bower, p.c.). Whereas these markers are generally thought of as quantifying over a domain of individuals (a-c) above, the remaining examples (d-i) all show *-miriw* ranging over a domain of *eventualities*. Morphologically, *-miriw* is suffixed to a verbal root in the fourth inflection $\emptyset \sim na \sim nya \sim nha$ ‘IV’, ostensibly the strategy for deriving eventive nominals from verbal predicates (sc. nominalisation, see Lowe 1996: 103). In (g), for example, *-miriw* seems to actually scope over an eventive nominal whose semantics derive from an entire VP: ‘the person such that that person engages in no event of ‘seeing places’.¹⁶ Similarly, (h) appears to mark the absence of a co-location relation between two objects. This verbless sentence gets

¹⁶Provisionally adapting the formalism from page 483 such that *-miriw* is able to range over D_e , the domain of eventualities (here I use $\mathfrak{x}, \mathfrak{y} \in \mathcal{E}$ as variables of eventualities), the meaning of *yolŋu wāŋa nhānha-miriw* person place see.IV-**PRIV** ‘person who doesn’t see places’ might be translated as follows:

$$\llbracket \text{yolŋu wāŋa nhānha-miriw} \rrbracket = \text{no}(\lambda \mathfrak{x}_e. \text{see}(\text{place})(\mathfrak{x}), \lambda \mathfrak{y}_e. \text{char}(\delta_{\text{person}}, \mathfrak{y}))$$

That is, the intersection between the set of *eventualities of seeing places* and the *contextual domain of eventualities* $\text{char}(\delta_{\text{person}}, \mathfrak{y})$ – perhaps those that might be predicated of/taken to be

its negative force from the privative suffix. Our common conceptions of privative marking certainly do not predict this function.¹⁷

Also notable is the use of privative constructions in forming prohibitives, shown in (14i). Wilkinson (1991: 446) notes that here, privative-marked eventive NPs express “a complete negative predication...stronger, less polite than regular imperatives.” This strategy indeed seems analogous to English utterances of the type “no smoking” and “no eating”, which indeed do carry imperative force and are constructed in a manner that appears to quantify over “smoking” and “eating” events in the utterance context.

This subsection has marshalled data about an evident expansion in the semantic domain of the privative marker in Djambarrpuyŋu; from predicating *absence* of “things” to predicating the *nonactualisation of events* in a given context. This consequently points to the apparent generalisation of a lexical item out of the semantic space of traditional “negative existentials” into functions that are normally associated with standard (or other special types of) negation. The following section on Arrernte negation will investigate an ostensibly similar phenomenon further along the cycle; one that has rendered these languages outliers with respect to typological generalisations about negation strategies in Australian languages. This section should shed further light on the “bleaching/generalisation” pathways of special negators.

5 Arandic: the nominal status of negated verbals

Along with a number of other Arandic varieties, Mparntwe (Alice Springs) Arrernte ([aer] Pama-Nyungan: Arandic) is spoken in the Central Australian desert. It is one of several of Australian languages that marks negation with a verbal suffix, fused into the verbal complex and diverging from the broad characterisation of Australian languages deploying preverbal SN marking made at the beginning of this chapter. According to Wilkins (1989: 71), this negation suffix *-(t)yekenhe~*–

characteristic of the disposition of a (blind) person (δ_{person}) – is empty.

Note that the apparent introduction of a modal component in (14d–i) can be easily accommodated by Francez’s (2007) formalism as the contextual retrieval of a relation ($\mathcal{R} = \text{char}$) that retrieves information about the disposition of the pivot.

¹⁷Note however, that Tamm (n.d., 2015) reports the parallel use of abessive suffixes and a preverbal negator in Estonian. She suggests a difference between the two strategies that is anchored in some shade of modal meaning (i.e. “a presupposition about a plan, a standard or an expectation considering a normal state of affairs”). See §6 (note 26) for more.

*tyange*¹⁸ “replace[s] tense [marking]” in this language; that is, the main verb of a negated clause carries none of the tense/mood/aspect information that it does in a positive Arrernte clause. An inflection-bearing auxiliary from the “*existential-positional*” class (predicates with stance or motion semantics which are grammaticalised in copular and existential constructions), is then optionally introduced to encode this information as shown in (15a). (15b) gives an example of temporal information (viz. pastness) being (presumably) supplied by the nonlinguistic context.

(15) Upper Arrernte ([aer] Pama-Nyungan: Arandic)

- a. *Anwerne-k-artweye mape-le pmere kurn-ile-tyekenhe ne-ke.*
 1pl-DAT-custodian PL-ERG country bad-CAUS-NEG be-PST
 ‘Our ancestors didn’t (ever) hurt the country.’ (Wilkins 1989: 235)
- b. *Kweye, the ng-enhe aw-etye=akenhe.*
 oops 1sg.ERG 2sg.ACC hear-NEG
 ‘Sorry, I didn’t hear you.’ (Henderson 2013: 412)

Wilkins (1989: 235, fn 17) suggests that the negative suffix is historically derivable from “the nominalising suffix *-(n)tye*”, to which a possibly erstwhile negative form *kenhe*,¹⁹ with reflexes in other Arandic varieties, attaches (see also Yallop 1977: 275). Support for this semi-complete univerbation is found in the fact that a number of formatives can be inserted at the boundary between the negative inflections two postulated components (see Wilkins 1989: 378ff), shown in (16). Seizing on this argumentation, Henderson (2013: 411–426) goes to some lengths to demonstrate the nominal status of verbal roots inflected with *-etye=akenhe*; some of these arguments are rehearsed here in view of better understanding the diachrony of Arrernte negation, although the reader is referred to his work for more evidence in favour of this analysis.

¹⁸The form of this suffix is given as *-ety(e)=akenhe~etayng* in Henderson 2013. I have not changed the orthography in example sentences cited here, rather opting to replicate the orthographic forms and glossing decisions of each author. The sole exception to this is standardisation to Leipzig glossing conventions and Henderson’s *VNeg_(1/2)* to NEG.

¹⁹A particle *kenhe* is also reported by Wilkins (1989: 372) which is glossed as BUT and indeed appears to have the syntax of a coordinator. While the semantics may contain some element of negative/subtractive meaning, it is unclear what relation this particle bears to the verbal negator (including questions about possible directionality of semantic change or whether this is merely an example of homonymy.) In related Arandic language Kaytetye [gbb], this form is translated as ‘might’ (Kaytetye people 2012: 424).

(16) The status of negative inflection in Eastern/Central varieties of Arrernte
[aer]

- a. En(do)cliticisation of adverbial particles in the verbal negator

Re=atherre untyem-eke~untyme an-err-eme

3d.NOM facing.away-DAT=RED sit-d-PRS

angk-err-etye«arlke»akenhe.

speak-RECP-NEG«also»

‘The two of them are sitting down and not talking to each other.’

(Henderson 2013: 417)

- b. Apparent ergative suffixation in cases of secondary predication
(obligatory *iff* the main predicate is transitive)

Re il-eke arlkw-etye=akenhe-ele.

3sg.ERG cook-PST eat-NEG-ERG

‘S/he cooked without eating.’

(Henderson 2013: 418)

- c. Negated verb form taking nominal negator

Angk-etye=akenhe-kwenye; irnterre anthurre angk-eke.

speak-NEG-NomNEG intensely INTS speak-PST

‘(She) wasn’t *not* talking; she was talking a lot.’ (Henderson 2013: 416)

The sentences in (16) suggest some convincing arguments for the emergence of a standard negation strategy out of an erstwhile special nominal negator. (a) provides formal evidence of the complex status of *-tyekenhe*: a set of adverbial particles (including *=arlke* ‘also’, *=nthurre* ‘really’, *=ante* ‘only’ etc.) appear to be able to intervene between the “nominalising formative” *-etye* and the “negating formative” *=akenhe*. It should be noted that cross-linguistically, this appears to be a set of (adverbial) operators that associate with focus (e.g. Jackendoff 1972, Rooth 1985). According to Wilkins (1989: 381), the locus of insertion of these particles indeed has scopal implications, compare *(ayenge) arlkwe-tyekenhe=ante* ‘(I) only didn’t eat’ and *(ayenge) arlkwe-ty«ante»kenhe* ‘(I) didn’t only eat.’²⁰

Ex. (16b) shows the negated verb receiving ergative marking when participating in secondary predication alongside a transitive verb. In this sense, the negated verb again behaves morphosyntactically identically to nominals (and unlike positive verb forms).

²⁰ A complete analysis of this phenomenon is outside the scope of this paper, although assuming a standard semantics for *only* (e.g. Horn 1969), the correct truth conditions can be derived by understanding *=ante* as taking wider scope over the negated predicate in the first case (“not eating” is the only thing I did), whereas it scopes narrowly in the second case (“eating” is the only thing I didn’t do’).

Interestingly, (16c) shows a verb form with negative marking occurring with the privative²¹ *-kwenye* in what is likely an example of metalinguistic negation (see e.g. Horn & Wansing 2017: 19 for a discussion of this phenomenon). Further work remains to be done on this topic, but this provides striking evidence for both the (semi-)nominal status of the negated verb and the renewal of a special nominal negator in Arrernte. Additionally, Veselinova (2016: 171) points out that nominalisation of lexical verbs is a component of the most common cross-linguistic ‘pathway whereby negative existentials break into the domain of SN (i.e. $B \rightarrow C$, see also §6 for further discussion).

Data for related Arandic languages is sparse, it is therefore not possible at this time to reliably reconstruct the trajectory of negative marking in the Eastern and Central dialects reported on here. Nevertheless, Katyetye, the sole Arandic outlier (see Hale 1962, Koch 2004), is also reported to make use of a suffix *-wanenye* to negate “actions” and to mark privative relations (Kaytetye 2012: 826). That verbal suffixation, a standard negation strategy otherwise atypical of Australian languages (I am aware of no Pama-Nyungan outside of Arandic that makes use of a similar strategy),²² is found at both ends of this subgroup, suggests a scenario in which privative markers came to displace other strategies of standard negation relatively early in its history. If this analysis is on track, then we can infer that the Arandic languages have undergone a full cycle of the NEC, and that, in view of the renewal of the privative form (*-kwenye*) described in various Upper Arrernte varieties above (a likely characteristic of stage B), we can

²¹*-kwenye* is glossed by both Henderson 2013, Wilkins 1989 as a “Nominal Negator” ‘NNEG’, although at least Wilkins (1989: 158) treats this term as synonymous with ‘PRIV’.

²²Note however that (some) Wati varieties (including Pitjantjatjara [pjt]) express standard negation by way of a nominalised verbal predicate (note that the nominaliser *-nytja* is also phonologically very similar to the Arandic nominaliser described above) and postverbal negator *wiya*, pointing to a similar trajectory (Sasha Wilmoth, p.c.). This negator *wiya* is also used in privative constructions.

- (i) a. *wiya* + nominalisation for sentential negation in Yankunytjatjara [kdd]
ngayulu kati-nytja wiya, Anti-lu kati-ngu
 1sg.ERG take-NMLZ NEG Andy-ERG take-PRS
 ‘I didn’t take it. Andy took it.’ (Goddard 1983: 244)
- b. *wiya* + noun for negative existential in Yankunytjatjara
mitjini wiya-ngka panya, iriti...
 medicine NEG-LOC ANAPH long ago
 ‘(That was) in the old days, you know, when there was no medicine.’ (Goddard 1983: 39)

further postulate the recommencement of the cycle.²³ This diachronic trajectory is summarised in Figure 5. Consequently, it appears that the generalisation of a nominal negator in Arandic seems to have effected a wholesale restructuring of standard negation strategies and, consequently, the negative domain in these languages.²⁴

6 Discussion

The data presented above demonstrate a robust, grammaticalised sensitivity to a distinction between “standard” clausal negation and the negative existential predication (i.e. predications of absence) in three distinct subgroups of Pama-Nyungan. We have also seen evidence of an ostensible diachronic tendency to flatten this distinction, as the conditions of use for negative existentials appear to relax, at which point they encroach into the domain of an erstwhile verbal negator (e.g. Yolŋu). By hypothesis, it is these two processes that underpin the NEC as described. This section attempts to situate the NEC – as it appears to have been instantiated in these Australian languages – in the context of broader work on the cyclical nature of meaning change.

6.1 Semantic change and grammaticalisation pathways

The notion of “grammaticalisation” – that process whereby grammatical categories arise in languages by way of the recruitment and reanalysis of lexical content – is one that has attracted a good deal of functional typological work (e.g. Bybee et al. 1994, Bybee & Dahl 1989, Traugott 1980, Dahl 1985, Heine & Kuteva

²³Note that a possible implication of this is the instantiation of a direct $C \rightarrow B'$ stage where a language with homophonous standard and existential negation directly recruits a new existential negator into the system. Given the tendency in Australian languages towards existential predication by bare NP (contra Croft 1991) or stance verb, discussed in §2.2 supra, this may be expected.

An alternative analysis, informed by the NEC, may involve treating the “nominalising element” in Arandic negative suffixes as a (further) grammaticalised existential. Note for example the plausible phonological similarity between “existential-positional” verbs *-ne-* ‘sit’, *-nte-* ‘lie’ and the Kaytetye and Mpwarrnte Arrernte nominalising elements *-nge*, *-tye*. Far from determined, such an analysis bears further research: a full diachronic account of Arandic verbal derivation is out of the scope of the current work.

²⁴I make no particular claim about the form of these markers, although by hypothesis, the form of the privative in some common pre-*proto*-Arandic ancestor is a reflex of present day Arandic *-kenhe*.

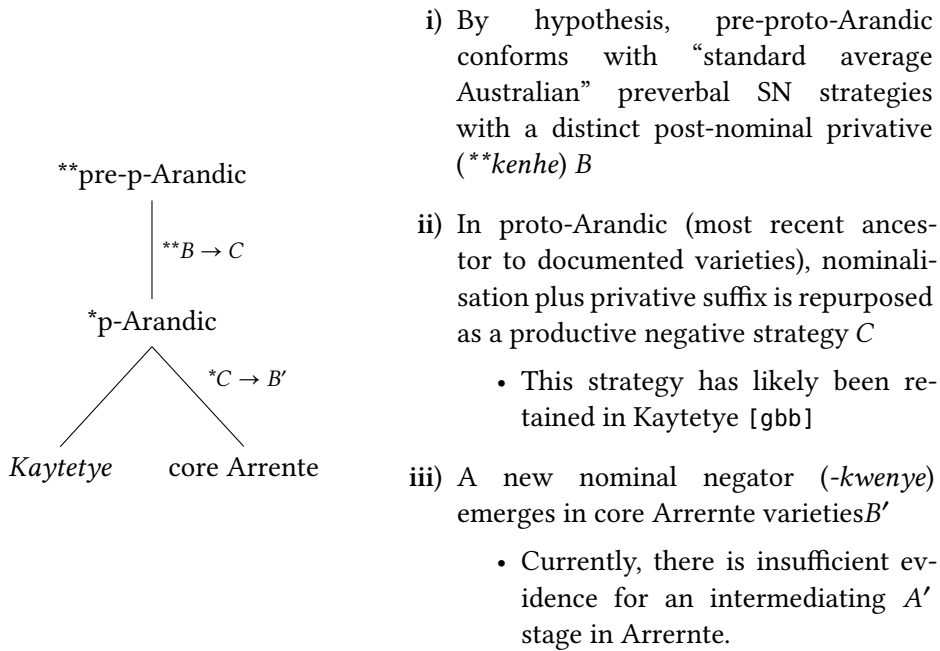


Figure 5: Summary of reconstructed changes in the Arandic negative domain in terms of NEC stages (*A, B, C*)

2003 a.o.). Of particular importance is the finding that, cross-linguistically, these grammatical categories evolve along diachronic pathways that appear to be constrained and unidirectional. This observation is the explicandum at the heart of contemporary work on meaning change and one that is of significant importance for our understanding of semantics and language change. In recent years, bringing formal tools for describing the “interpretation of functional expressions” to bear on these questions has been fruitful (see Deo 2015a for a detailed overview of this enterprise).

Deo (2015b) provides a framework to understand the general structure of – and motivating forces behind – a cyclical change. This is shown in Figure 6 (as will be discussed below, note that this diagram is not isomorphoric to the one in NEC diagrammatisation in Figure 1).

Insofar as the NEC is concerned, Deo’s “context dependent” (CD) stage corresponds to Croft’s “relatively unstable” stage *C* (i.e. that state of a language where negative existential markers are identical to the standard negator). Croft (1991: 19) claims that the motivation for this stage is the idea that “[for] predication in general, existential predication is analogous to a verbal predication.” His suggestion

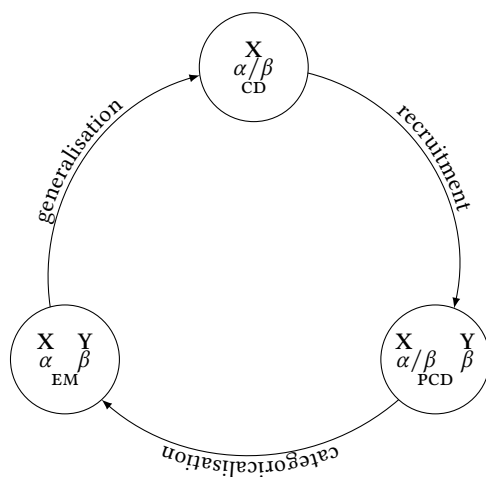


Figure 6: The structural properties of cyclical meaning change as formulated by Deo (2015b a.o.) A marker (form) X is ambiguous between two readings α, β at the context-dependent stage (CD), a marker Y is recruited to encode β at the partially context-dependent stage (PCD), whereupon it categorialises, such that X can no longer be used to encode β : now the distinction between the two meanings is explicitly marked (EM). Eventually, the domain of use for Y generalises, at which point Y is now ambiguous between α, β (CD').

that “the analogy is strengthened if there is formal parallelism” underpins formal pressure to innovate an existential predicate, returning the system to stage A. Additionally, as has been shown elsewhere (e.g. 13e above), stage C negative predications can be ambiguous between the two readings; another likely source of functional pressure for the recruitment of new strategies.

The discussions of Yolŋu and Arandic above have provided some evidence for the trajectory of negative existential/privative marking as they generalise, encroaching into the functional domain of an erstwhile standard negator (transitions from A/B into stage C). For example, as shown, while privative marking initially appears to be restricted to absence predications of individuals, they seem to gradually become available to eventive nominals. Strong evidence of this was provided from Arrernte, where all negative predicates have the syntax of non-derived nominal predications, at the expense of inflection of tense, mood and aspect categories. Additionally, on the basis of comparative evidence, Djambarrpuyŋu *bäyŋu* shows signs of having been a negative quantifier that now has acquired the general semantics of a verbal negator (8–9) *supra*. The following subsection further motivates this generalisation phenomenon.

6.2 Generalisation: the notion of “indexicality” and expanding domains

The expansion of the domain of the negative existential construction predicted by the NEC ($B \rightarrow C$) can be understood as a diachronic *generalisation* in its semantics. Generalisation refers to that stage in a grammaticalisation cycle where “[a functional expression] is diachronically reanalyzed as instantiating a broader, more general functional expression at a later stage...involv[ing] a systematic expansion in the domain of application [for that expression]” (Deo 2015a: 187). The treatment of the privative given above, for example, has shown how, in multiple language groups, the domain of this marker has expanded. Broadly speaking, whereas at an initial state, PRIV seems to quantify over a domain of properties of individuals, it comes to quantify over properties of eventualities and, in some instances, further generalises to quantify over propositions (sc. properties of worlds; the domain of modals, and possibly, negative operators, see Horn & Wansing 2017: 34ff.) Importantly, even if restrictions on the type of the sets is relaxed, the *relation* (**no**) that is taken to hold between the sets being quantified over is identical (i.e. $\mathbf{no} =_{\text{def}} \lambda P_{\langle \sigma, t \rangle} \lambda Q_{\langle \sigma, t \rangle}. P \cap Q = \emptyset$).^{25 26}

In a 2018 paper, Deo suggests that grammaticalisation trajectories in general are characterisable by the loss of (*discretionary*) *indexical content* (e.g. Perry 2012: 68ff). That is, reanalysed forms lose their dependence on context for retrieving discourse reference.²⁷ Deo appeals to this notion in describing grammaticalisation pathways in which (distal) demonstratives gradually lose their indexical force to become markers of definiteness, specificity and eventually noun class markers (see also Greenberg 1978, de Mulder & Carlier 2011, Stevens 2007: 61).

²⁵Hamari (2011) gives evidence of a possible similar expansion of the functions available to Uralic abessive suffixes. It is hoped that beginnings of a treatment proposed here may provide momentum towards reconsidering the “differences...in semantics [between the nominal and verbal abessives.]” (79). Kiefer (2015: 609) observes that the Hungarian cognate does attach to verbal bases but is restricted to transitive stems with eventive semantics. This is an observation with potential implications for future work on the grammaticalisation pathway for privative marking.

²⁶Similarly, Tamm (2015: 416) observes that “abessive negation” in Estonian is a strategy that (unlike the distribution of cognates elsewhere in Uralic) also permits of clausal-type negative (SN-like) uses and carries a “presupposition of an intention [to instantiate the abessive-marked predicate.]” In view of potential modal analyses of negators mentioned here, the emergence of this reading is extremely interesting.

²⁷Perry’s (2012: 68ff) 2×2 typology of indexicals contrast those that: (A) depend on notions of (i) “wide” vs. (ii) “narrow” context to designate and (B) on the basis of context, either designate (i) “automatically” or otherwise (ii) require appeal to “speaker intentions”. Those indexical items that require appeal to speaker intention are “discretionary” indexicals (cf. Kaplan’s “true demonstratives”, see Braun 2017 for a general discussion of this literature.)

The progressive to imperfective shift can also be fruitfully understood as the relaxation of a requirement, peculiar to the progressive aspect, for a specific, discourse salient reference interval that relies on pragmatics (\approx discretionary content provided by some construal of “speaker demonstration”) for evaluation. The newly emergent “imperfective” does not have this indexical/context-dependent content.

An interesting parallel in terms of thinking about the recruitment of formal mechanisms for existential predication is the observation that existential *there* in English is homonymous with deictic *there* (a discretionary indexical par excellence). This is suggestive of some functional connection between existential propositions and notions of indexicality as described above (and indeed, formal similarities between locative/existential predications have been observed elsewhere). Francez’s 2007 treatment of existential predications, adapted in (2c) above, crucially makes reference to their context dependence (formally represented as a contextual parameter d_α). This captures the intuition that the utterance of an existential proposition relies on wide construals of context for domain restriction and evaluation: that is, the proposition *there are no sticks* cannot be evaluated without reference to the speaker’s intentions: the contextual parameters of utterance (most likely (but not necessarily) those spatiotemporal conditions under which it was uttered).

Nevertheless, d_α can also be supplied by way of a “coda” – i.e. that (optional) phrase that, rather than relying on speaker intentions (the defining property of a *discretionary indexical*), *explicitly* restricts the domain of an existential predication. Examples are given for Djambarrpuyŋu in (18), where the “coda” is underlined.

(17) Privatives in Djambarrpuyŋu: CODA underlined

- a. Gapuwiyak *guya-miriw*
 PLACE fish-PRIV
 ‘There are no fish in Gapuwiyak. / Gapuwiyak is fishless.’
- b. *Bäyŋu* *guya* Gapuwiyak (*gulun-ŋur*).
 NEG.EX fish PLACE waterhole-LOC
 ‘There are no fish in Gapuwiyak.’

The availability of coda phrases additionally provides a syntactic location for the subject in the “eventive-privative” sentences that have been described above. In (18), the privative phrase predicates that *events* of a particular type (viz. that event described by the privative-marked verb form) are not characteristic of whichever entity (18a) or location (18b) is specified in the coda position.

(18) “Eventive-privatives” in Djambarrpuyŋu: CODA underlined

- a. *lukanha-miriw ŋunhi dharpany*
eat.NMLZ-PRIV TEXTD tree.FOC

‘That tree is not eaten/edible.’

- b. *bäyŋun dhalakarr marrtjinyara-w*
NEG.EX.FOC space move.NMLZ-DAT

‘There’s no space to move≈there’s no moving in the space.’

Finally, these markers generalise to the point that they are entirely context-independent and serve, effectively, as truth-functional operators (i.e. standard/sentential negators, inverting the truth value of their prejacent (sc. that proposition that they modify)).²⁸ Djambarrpuyŋu *bäyŋu* and the apparent trajectory of Arrernte standard negator *-tyekenhe*, described in §5 are likely examples of the (near-)complete instantiation of this pathway. Table 3 spells out this hypothesised trajectory, where the transition from NEC stage *B* to *C* can be understood as a generalisation in the domain over which the relevant marker is able to quantify.

Table 3: Change in the domain over which a marker with negative meaning quantifies
($\mathcal{P}_{\langle\sigma,t\rangle} \cap \mathcal{Q}_{\langle\sigma,t\rangle} = \emptyset$)

NEC Stage	Function	Domain	Type
<i>B</i>	PRIVATIVE	Properties of individuals	$\langle e, t \rangle$
<i>B~C</i>	EVENTIVE PRIVATIVE	Properties of events	$\langle \varepsilon, t \rangle$
<i>C</i>	(STANDARD) NEGATOR	Propositions	$\langle s, t \rangle$

6.3 Conclusion

This chapter has provided diachronically- and comparatively-informed discussion of change and variation in the negative domain from three geographically distant and temporally deep subgroups of the Pama-Nyungan family of Australian languages. Each of these case studies suggests nuances and provides further insights into the formulation of the Negative Existential Cycle as discussed

²⁸Although, as mentioned above, a unified formal account might treat standard negation as a modal operator where the domain of the negative form is reanalysed. A full defense of this perspective is outside the scope of this chapter.

in the work of Croft (1991) and Veselinova (2016 a.o). Of particular interest is the relationship between the privative case – which I have argued represents the morphologisation of a negative existential predicate – and standard negation.

The discussion of Thura-Yura (§3) shows a likely trajectory where a privative suffix appears to have become a preverbal standard negator *maga*. In Wirangu, this appears to have created the conditions for the recruitment-by-borrowing of lexical material from an unrelated neighbouring language as a new privative.

The section on Yolŋu (§4) shows competition and structured variation between two markers, *yaka* and *bäyŋu* – the latter previously having been restricted to “negative quantifier” functions. Additionally, we have seen comparative evidence that suggests that the privative marker *-miriw* has expanded out of its traditional domain, to the extent that it is now showing signs of also being in competition with preverbal negative particles. Conversely, the Ritharrŋu data show how a distinct negative suffix *-’may’* appears to have been borrowed from a neighbouring language; a finding not predicted by (unidirectional) accounts of the NEC.

Finally, §5 provided a discussion of SN strategy of negative suffixation in Arrernte verbs, typologically unusual for Australian languages. We recapitulated several morphosyntactic arguments that negated clauses in Arrernte are actually derived (de-verbal) nominal predicates. In view of the peculiarity of this system, this fact of Arrernte appears to provide strong evidence in favour of a trajectory where the standard negation strategy in this language is an erstwhile privative (negative existential) marker *-tye-kenhe* that has completely displaced an older form (and then triggered the recruitment of a new special negator for negative existential predications *-kwenye*).

The negative domains of Australian languages provide an opportunity to nuance our understanding of the NEC, and perhaps grammaticalisation paths more generally. In view of how robustly Australian languages draw a formal distinction between clausal negation (overwhelmingly with a pre-verbal particle) and absence predications (overwhelmingly with a nominal suffix), deviations from this tendency are likely indicators of systemic formal and functional change in the negative domain. To the extent that a diachronic relationship can be drawn between the lexical material used to encode each of these categories, semantic change can likely be inferred from deviations from this pattern. Furthermore, in view of the strikingly distinct morphosyntactic properties of pre-verbal particles and nominal suffixes, the displacement of standard negation markers by negative existentials (esp. privatives) calls for an account of this “functional” cycle, one that foregrounds the possibility of semantic reanalysis and meaning similarity between these categories: indeed as has been suggested in the foregoing

discussion, there is good reason to conceive of a subset relation between existential and standard negation.

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Language index

Adnyamathanha (Pama-Nyungan: Thura-Yura)	adt
Bardi (Pama-Nyungan: Nyulnyulan)	bcj
Barngarla (Pama-Nyungan: Thura-Yura)	bjb
Bidjara (Pama-Nyungan: Maric)	bym
Diyari (Pama-Nyungan: Karnic)	dif
Djambarrpuyŋu (Pama-Nyungan: Yolŋu (Dhuwal))	djr
Dyirbal (Pama-Nyungan: Dyirbalic)	dbl
Gumbaynggir (Pama-Nyungan: Southeast NSW)	kgs
Gupapuyŋu (Pama-Nyungan: Yolŋu (Dhuwal))	guf
Kaytetye (Pama-Nyungan: Arandic)	gbb
Kokata (Pama-Nyungan: Wati)	ktd
Kuyani (Pama-Nyungan: Thura-Yura)	gvy
Mangala (Pama-Nyungan: Marrngu)	mem
Maori (Polynesian; New Zealand)	mao
Marra (?Arnhem: East)	nid
Marra (?Arnhem: Marran)	mec
Nauo (Pama-Nyungan: Thura-Yura)	nwo
Nukunu (Pama-Nyungan: Thura-Yura)	nnv
Nyangumarta (Pama-Nyungan: Marrngu)	nna
Nyawaygi (Pama-Nyungan: Dyirbalic)	nyt
Ritharrŋu (Pama-Nyungan: Yolŋu (Yaku))	rit
Upper Arrernte (Pama-Nyungan: Arandic)	aer
Bularnu (Pama-Nyungan: Warluwaric)	yil
Kaurana (Pama-Nyungan: Thura-Yura)	zku

Muruwari (Pama-Nyungan: Southeast NSW)	zmu
Ngiyambaa (Pama-Nyungan: Wiradhuric)	wyb
Wakaya (Pama-Nyungan: Warluwaric)	wga
Wangurri (Pama-Nyungan: Yolŋu (Dhaŋu))	dhg
Wirangu (Pama-Nyungan: Thura-Yura)	wgu
Yan-nhanu (Pama-Nyungan: Yolŋu (Nhanu))	jay
Warluwarra (Pama-Nyungan: Warluwaric)	wrb
Warrongo (Pama-Nyungan: Maric)	wrg

Abbreviations

1	first person		
2	second person	NOM	nominative case
3	third person	NP	noun phrase
ABS	absolutive case	OBL	oblique
ANAPH	anaphoric	PERL	perlative
COM	comitative	PL	plural
DAT	dative	PRIV	privative
DIST	distal (demonstrative)	PROH	prohibitive
DP	discourse particle	PROM	prominence marker (\approx focus)
ERG	ergative case		
EXCL	exclusive	PROP	propriative case
FOC	focus	PROX	proximal (demonstrative)
FUT	future	PRS	present tense
INCH	inchoative	PST	past tense
INCL	inclusive	QUANT	quantifier
INDF	indefinite	RECP	reciprocal
INFL	inflection (verbal)	RED	reduplicant
INTS	intensifier	SEQ	sequential
IPFV	imperfective (aspect)	SG	singular
LOC	locative	SN	standard negation/negator
MED	medial (demonstrative)	TEXD	textual deictic (endophoric demonstrative)
NEG	negator		
NEG.EX	negative existential		
NMLZ	nominaliser (derivation)		

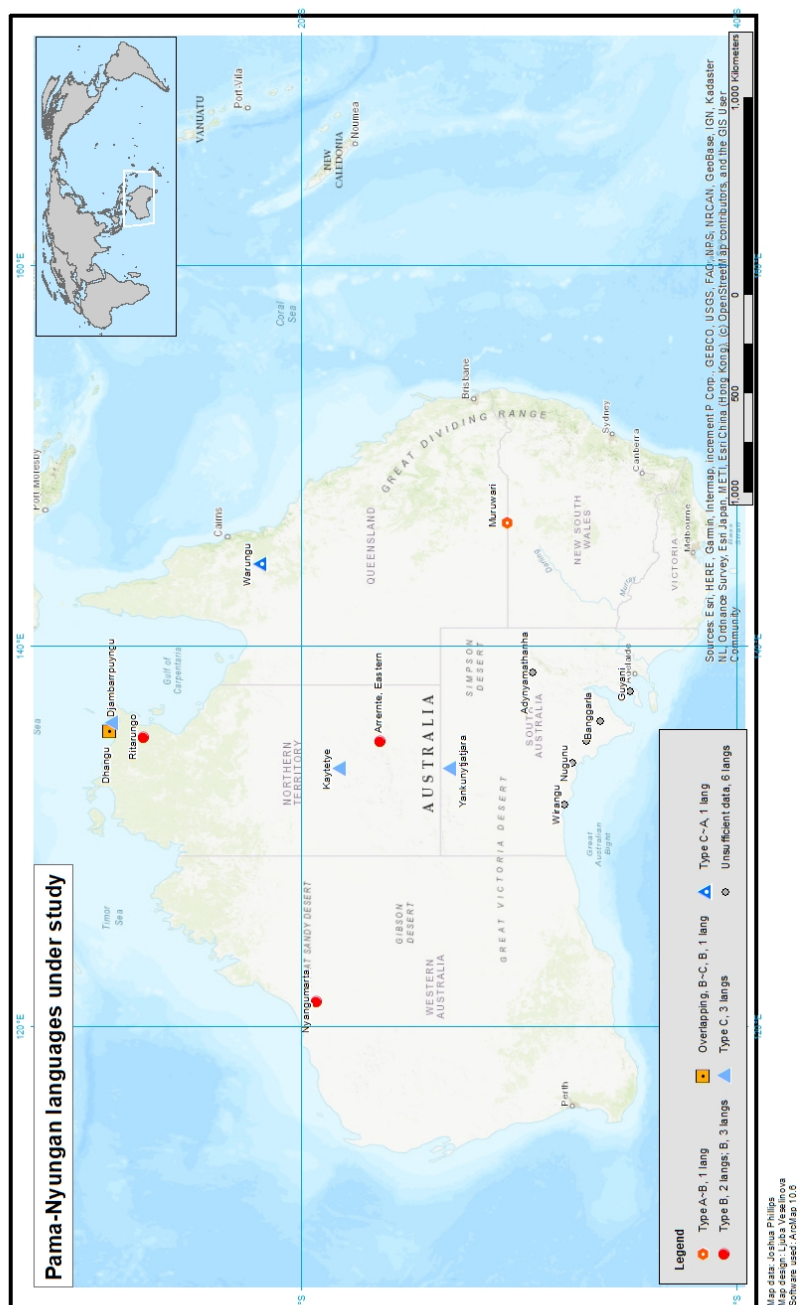


Figure 7: NEC in Pama-Nyungan

References

- Ahern, Christopher & Robin Clark. 2017. Conflict, cheap talk and Jespersen's cycle. *Semantics and Pragmatics* 10(11). 1–40.
- Austin, Peter K. 2011. *A grammar of Diyari, South Australia*. 2nd edn. London: SOAS.
- Barwise, Jon & Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4(2). 159–219.
- Bauer, Winifred. 1993. *Maori* (Descriptive Grammars). London: Routledge.
- Black, John McConnell. 1917. Vocabularies of three South Australian native languages: Wirrung, Narrinyeri and Wongaidya. *Transactions of the Royal Society of South Australia* 65(i, 25 July). 1–8.
- Bouckaert, Remco R., Claire Bower & Quentin D. Atkinson. 2018. The origin and expansion of Pama-Nyungan languages across Australia. *Nature Ecology and Evolution* 2. 741–749.
- Bower, Claire. 2009. *Conjugation class stability: Charting the history of conjugation classes in Yolŋu languages*. Paper presented at the 19th International Conference on Historical Linguistics. Nijmegen.
- Bower, Claire. 2010. Correlates of language change in hunter-gatherer and other 'small' languages. *Language and Linguistics Compass* 4. 665–679.
- Bower, Claire. 2012. *A grammar of Bardi*. Georg Bossong, Bernard Comrie & Matthew Dryer (eds.). Berlin: Mouton de Gruyter.
- Bower, Claire & Quentin Atkinson. 2012. Computational phylogenetics and the internal structure of Pama-Nyungan. *Language* 88. 817–845.
- Brammall, Daniel. 1991. *A comparative grammar of Warluwaric*. Canberra. (Honours thesis).
- Braun, David. 2017. *Indexicals*. Edward N. Zalta (ed.). Summer 201. Stanford: Center for the Study of Language & Information (CSLI).
- Breen, J. Gavan. N.d. Bularnu grammar and dictionary. Manuscript.
- Bybee, Joan & Östen Dahl. 1989. The creation of tense and aspect systems in the languages of the world. *Studies in Language* 13. 51–103.
- Bybee, Joan, Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago; London: University of Chicago.
- Chung, Sandra & William A. Ladusaw. 2004. *Restriction and saturation*. Cambridge, MA: MIT Press.
- Creissels, Denis. 2014. *Existential predication in typological perspective*. Unpublished manuscript, University of Lyon. <http://www.deniscreissels.fr/public/Creissels-Exist.Pred.pdf>.

- Croft, William. 1991. The evolution of negation. *Journal of Linguistics* 27(1). 1–27.
- Dahl, Östen. 1985. *Tense and aspect systems*. Oxford: Blackwell.
- de Mulder, Walter & Anne Carlier. 2011. The grammaticalization of definite articles. In Bernd Heine & Heiko Narrog (eds.), *The Oxford handbook of grammaticalization*, 522–534. Oxford: Oxford University Press.
- Deo, Ashwini. 2015a. Diachronic semantics. *Annual Review of Linguistics* 1. 179–197.
- Deo, Ashwini. 2015b. The semantic and pragmatic underpinnings of grammaticalization paths: The progressive to imperfective shift. *Semantics and Pragmatics* 8. 1–52.
- Deo, Ashwini. 2018. *Fine-tuning the progression of grammaticalization paths*. Paper presented at Meaning in Flux workshop, Yale University, 12–14 October, 2018. New Haven.
- de Weert, Danny. 2016. Existential sentences in Flemish sign language and Finnish sign language. *Suomen Kielitieteellinen Yhdistys Journal of Linguistics* 29. 7–38.
- Dixon, Robert M. W. 1983. Nyawaygi. In Robert M. W. Dixon & Barry J Blake (eds.), *The handbook of Australian languages*, vol. 3, 430–522. Canberra: The Australian National University Press.
- Dixon, Robert M. W. 2002. *Australian languages: Their nature and development* (Cambridge language surveys). New York: Cambridge University Press. 734.
- Donaldson, Tamsin. 1980. *Ngiyambaa: The language of the Wangaaybuwan* (Cambridge Studies in Linguistics 29). Cambridge: Cambridge University Press.
- Eades, Diana. 1979. Gumbaynggir. In Robert M. W. Dixon & Barry J. Blake (eds.), *The handbook of Australian languages*, vol. 1, 244–361. Canberra: The Australian National University Press.
- Francez, Itamar. 2007. *Existential propositions*. Stanford University. (Doctoral dissertation).
- Freeze, Ray. 1992. Existentials and other locatives. *Language* 68(3). 553–595.
- Goddard, Cliff. 1983. *A semantically-oriented grammar of the Yankunytjatjara dialect of the Western Desert Language*. ANU. (Doctoral dissertation).
- Greenberg, Joseph H. 1978. How does a language acquire gender markers? In Joseph H Greenberg (ed.), *Universals of human language*, vol. 3: Word Structure, 47–82. Stanford: Stanford University Press.
- Hale, Kenneth. 1962. Internal relationships in Arandic of Central Australia. In Arthur Capell (ed.), *Some linguistic types in Australia (Handbook of Australian languages part 2)* (Oceania Linguistics Monographs), 171–83. Sydney: University of Sydney.

- Hamari, Arja. 2011. The abessive in the Permic languages. *Suomalais-Ugrilainen Seuran Aikakauskirja (Journal of the Finno-Ugric Society)* 93. 37–84.
- Hamari, Arja. 2015. Negation in Komi. In Matti Miestamo, Anne Tamm & Beáta Wagner-Nagy (eds.), *Negation in Uralic languages*, 238–263. Amsterdam: John Benjamins Publishing Company.
- Heath, Jeffrey. 1980. *Basic materials in Ritharngu: Grammar, texts and dictionary* (Pacific Linguistics B - Monographs). Canberra: Australian National University.
- Heath, Jeffrey. 1981. *Basic materials in Mara: Grammar, texts and dictionary* (Pacific Linguistics B - Monographs). Canberra: Australian National University.
- Heine, Bernd & Tania Kuteva. 2003. On contact-induced grammaticalization. *Studies in Language* 27. 529–572.
- Henderson, John. 2013. *Topics in Eastern and Central Arrernte grammar* (Outstanding grammars from Australia). Munich: LINCOM.
- Hercus, Luise Anna. 1992. *A Nukunu dictionary*. Canberra: s.n.
- Hercus, Luise Anna. 1999. *A grammar of the Wirangu language from the west coast of South Australia*. Canberra: Pacific Linguistics.
- Hercus, Luise Anna & Jane Simpson. 1996. Wirangu, Western Desert and Thura-Yura. In Canberra.
- Horn, Laurence R. 1969. A presuppositional analysis of *only* and *even*. In *Proceedings of CLS*, 98–107. Chicago: Chicago Linguistics Society.
- Horn, Laurence R. 1989. *A natural history of negation*. Chicago: University of Chicago Press.
- Horn, Laurence R. & Heinrich Wansing. 2017. Negation. In Edward N. Zalta (ed.), *The Stanford encyclopedia of philosophy*, Spring 2017. Stanford: CSLI. <https://plato.stanford.edu/archives/spr2020/entries/negation/>.
- Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, Massachusetts & London, England: MIT Press.
- Kaytetye people. 2012. *Kaytetye to English dictionary*. Myfany Turpin & Alison Ross (eds.). Alice Springs: IAD Press.
- Kiefer, Ferenc. 2015. The privative derivational suffix in Hungarian: A new account. In Matti Miestamo, Anne Tamm & Beáta Wagner-Nagy (eds.), *Negation in Uralic languages*, 601–614. Amsterdam & New York: John Benjamins Publishing Company.
- Koch, Harold. 2004. The Arandic subgroup of Australian languages. In Claire Bowern & Harold Koch (eds.), *Australian languages: Classification and the comparative method*, chap. 6, 127–150. Amsterdam: John Benjamins Publishing Company.

- Lowe, Beulah M. 1996. *Grammar lessons in Gupapuynu*. Darwin: Yolŋu Studies, CDU.
- McKelson, Kevin. 1974. *Studies in Mañala*. s.l.: s.n.
- McLellan, Marilyn. 1992. *A study of the Wangurri language*. Sydney. (Doctoral dissertation).
- McNally, Louise. 2011. Existential sentences. In von Heusinger, Claudia Maienborn & Paul Portner (eds.), *Semantics: an international handbook of natural language meaning*, vol. 2, 1829–1848. Berlin: de Gruyter.
- McNally, Louise. 2016. Existential sentences crosslinguistically: Variations in form and meaning. *Annual Review of Linguistics* 2. 211–231.
- Miestamo, Matti. 2005. *Standard negation: The negation of declarative verbal main clauses in a typological perspective*. Berlin: Mouton de Gruyter.
- Miestamo, Matti. 2007. Negation: An overview of typological research. *Language and Linguistics Compass* 1(5). 552–570.
- O’Grady, Geoffrey N. 1963. *Nyangumata grammar*. (Doctoral dissertation).
- O’Grady, Geoffrey N., C. F. Voegelin & F. M. Voegelin. 1966. Languages of the world: Indo-Pacific fascicle six. *Anthropological Linguistics* 8(2). 1–197.
- Oates, Lynette F. 1988. *The Muruwari language*. Canberra: Pacific Linguistics.
- Perry, John R. 2012. *Reference and reflexivity*. 2nd edn. Stanford, CA: Centre for the Study of Language & Information.
- Phillips, Josh. Forthcoming. Negation. In Claire Bower (ed.), *The Oxford handbook of Australian languages*. Oxford: Oxford University Press.
- Rooth, Mats. 1985. *Association with focus*. University of Massachusetts, Amherst. (Doctoral dissertation).
- Schebeck, Bernhard. 2001. *Dialect and social groupings in Northeast Arnhem Land [sic]* (LINCOM Studies in Australian Languages). München: LINCOM.
- Schürmann, Clamor Wilhelm & Christian Gottlieb Teichmann. 1840. *Outlines of a grammar, vocabulary and phraseology of the Aboriginal language of South Australia, spoken by the natives in and for some distance around Adelaide*. Adelaide: By the authors, at the native location.
- Schürmann, Clamor Wilhelm. 1844. *A vocabulary of the Parnkalla language, spoken by the natives inhabiting the western shores of Spencer’s Gulf [Facsimile]*. Adelaide: Libraries Board of South Australia.
- Sharp, Janet. 2004. *Nyangumarta: A language of the Pilbara region of Western Australia*. Canberra: Pacific Linguistics.
- Simpson, Jane & Luise Anna Hercus. 2004. Thura-Yura as subgroup. In Claire Bower & Harold Koch (eds.), *Australian languages: Classification and the comparative method*, chap. 8, 179–206. Amsterdam: John Benjamins Publishing Company.

- Stevens, Jon. 2007. *The Old English demonstrative: A synchronic and diachronic investigation*. Cleveland. (MA thesis).
- Tamm, Anne. 2015. Negation in Estonian. In Matti Miestamo, Anne Tamm & Beáta Wagner-Nagy (eds.), *Negation in Uralic languages* (Typological Studies in Language 108), 399–431. Amsterdam: John Benjamins Publishing Company.
- Tamm, Anne. N.d. Uralic abessives and caritives. In Helsinki.
- Traugott, Elizabeth C. 1980. Meaning-change in the development of grammatical markers. *Language Sciences* 2(1). 44–61.
- Tsunoda, Tasaku. 2011. *A grammar of Warrongo*. Berlin: Mouton de Gruyter.
- van der Auwera, Johan & Ludo Lejeune. 2005. The prohibitive. In Martin Haspelmath, Matthew Dryer, David Gil & Bernard Comrie (eds.), *World atlas of linguistic structures*, 290–293. Oxford: Oxford University Press.
- van Gelderen, Elly. 2022. The Negative Existential and other cycles: Jespersen, Givón, and the copula cycle. In Ljuba Veselinova & Arja Hamari (eds.), *The Negative Existential Cycle*, 589–610. Berlin: Language Science Press. DOI: 10.5281/zenodo.7353629.
- Veselinova, Ljuba. 2013. Negative existentials: A cross-linguistic study. *Italian Journal of Linguistics* 25(1). 107–145.
- Veselinova, Ljuba. 2016. The negative existential cycle viewed through the lens of comparative data. In Elly van Gelderen (ed.), *Cyclical change continued* (Linguistics Today 227), 139–187. Amsterdam: John Benjamins Publishing Company.
- Wilkins, David P. 1989. *Mparntwe Arrernte (Aranda): Studies in the structure and semantics of grammar*. Australian National University. (Doctoral dissertation).
- Wilkinson, Melanie P. 1991. *Djambarrpuynu: A Yolŋu variety of Northern Australia*. University of Sydney. (Doctoral dissertation).
- Wurm, Stephen Adolphe. 1972. *Languages of Australia and Tasmania*. The Hague: Mouton.
- Yallop, Colin. 1977. *Alyawarra: An Aboriginal language of Central Australia*. Canberra: Australian Institute of Aboriginal Studies.