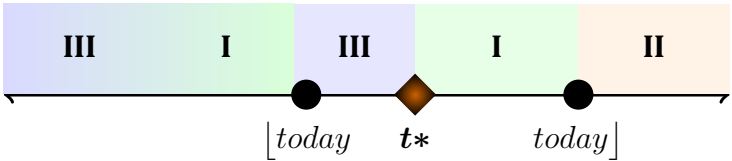


Negation, reality status & the Yolŋu verbal paradigm: Towards a formal account of the porousness of tense and modality

This work presents the first formal analysis of negation-based asymmetries in reality-status marking across Yolŋu (Australian, Pama-Nyungan) verbal paradigms, based on original field-work on two Yolŋu varieties. I show that innovative language varieties have recruited a verbal paradigm—previously used for encoding tense distinctions—reanalysing it as a series of polarity-sensitive mood/reality-status inflections.

Yolŋu Matha is a Pama-Nyungan language family spoken in Northeastern Arnhem Land (Northern Australia), encircled by a number of genetically unrelated languages (non-Pama-Nyungan). Within Yolŋu, there is a striking amount of variation in the grammatical expression of TMA categories. I compare the relationship between negation and temporal expression in two closely-related varieties (Djambarrpuyŋu [djr] and Wägilak [rit]) in view of developing a theory of variation – contemporary and historical – in Yolŋu Matha. All verb stems in both of these languages inflect for four cognate TMA categories (numbered **I-IV** following Wilkin-son 1991, Lowe n.d.) The distribution of these inflections differs significantly between the two languages: while Wägilak draws a three-way tense distinction, Djambarrpuyŋu exhibits “cyclic tense”: a typologically extremely rare system of temporal marking reported only in a small number of languages in Western Arnhem Land (cf. Comrie 1985). The figure below schematises the “discontinuous” temporal intervals that license the **I** and **III** inflections in Djambarrpuyŋu (where *t** marks *now* – the time of utterance which partitions time into a PAST and FUTURE).



Djambarrpuyŋu past-tensed predications are marked with **III** unless reference time is **before today** and judged to be in the **recent past**, in which case they receive the **I**-inflection (obligatory for the same-day future.)

Negative asymmetry. In a number of Arnhem languages, clausal negation triggers the appearance of *irrealis*-type modal markings. This morphose-mantic asymmetry is exhibited in Djambarrpuyŋu; only two of the four in-flectional classes that are available in positive clauses are also available in negative clauses. These distributional facts are exhibited below in (1-4) and summarised in the table to the right.

INFLECTIONS	
–NEG	+NEG
I	II
III	IV

- Djambarrpuyŋu (positive)**
- (1) a. *godarr ŋarra dhu nhäŋu mukulnha*
tomorrow 1s FUT see.**II** aunt.ACC
'I'll see my aunt tomorrow.'
- (2) a. *ŋarra ga nhäma mukulnha*
1s IPFV.**I** see.**I** aunt-ACC
'I see my aunt (right now).'

- Djambarrpuyŋu (negative)**
- b. *bäyŋu ŋarra dhu nhäŋu mukulnha*
NEG 1s FUT see.**II** aunt.ACC
'I won't see my aunt tomorrow.'
- b. *bäyŋu ŋarra gi nhäŋu mukulnha*
NEG 1s IPFV.**II** see.**II** aunt.ACC
'I don't see my aunt (right now).'

(3) a. *ɲarra nhäŋal mukulnha gäthur*
1s see.**III** aunt-ACC today

‘I didn’t see my aunt this morning.’

(4) a. *ɲarra nhäma mukulnha barpuru*
1s see.**I** aunt-ACC yesterday

‘I didn’t see my aunt yesterday.’

b. *bäyɲu ɲarra nhänha mukulnha gäthur*
NEG 1s see.**IV** aunt.ACC today

‘I didn’t see my aunt this morning.’

b. *bäyɲu ɲarra nhäɲu mukulnha barpuru*
NEG 1s see.**II** aunt.ACC yesterday

‘I didn’t see my aunt yesterday.’

The status of negation. As a consequence of Djambarrpuyŋu’s grouping of negation with other irrealis modalities (only the future marker *dhu* shown here, others include circumstantial modal *balaŋ* and conditional subordinator *ɲuli*), I argue that the erstwhile future category (**II**) has been reanalysed as a species of IRREALIS marker (cf. De Haan 2012). Crucially, this diverges from the Wägilak data (5), where the verbal inflection encodes a three-way tense distinction, insensitive to clausal polarity. Djambarrpuyŋu, along with neighbouring varieties, exists in a state of stable language contact with the non-Pama-Nyungan languages of Western Arnhem Land. An apparent Sprachbund, these languages exhibit the NEGATIVE ASYMMETRY, along with a number of other features (incl. ‘cyclic’ tense and aspectual auxiliation, not analysed in this presentation, see Waters 1989:275-89) that are absent in the (conservative) Yolŋu varieties of the east and south (incl. Wägilak). Consequently, this contact situation has led to the wholesale restructuring of Djambarrpuyŋu’s conventions of TMA expression.

(5) Wägilak

a. *godarr ɲarra nhäɲu-(-ma’) mukulnha*
tomorrow 1s see.**II**-NEG aunt.ACC

‘I will (not) see my aunt tomorrow.’

b. *nhäma-(-ma’) rra yakuthi mukulnha*
see.**I**-(NEG) 1s now aunt.ACC

‘I’m (not) looking at my aunt currently.’

c. *gätha ɲarra nhäwala-(-ma’) mukulnha*
today 1s see.**III**-(NEG) aunt.ACC

‘I saw (didn’t see) my aunt this morning.’

Analysis. I examine the mechanisms by which lexical material, cognate with the tense-prominent inflectional system of other Yolŋu languages (and, by hypothesis, proto-Yolŋu, cf. Bown 2009), has been recruited by the speakers of these varieties to encode a polarity-sensitive modal distinction.

Functional explanations for the NEGATIVE ASYMMETRY generally emphasise the fact that negated predicates ‘[belong] to the realm of the non-realized’, a domain that is associated with irrealis marking (Miestamo 2005: 225). This is also the realm to which future predica-

tions belong, providing a likely pathway along which the proto-Yolŋu future tense category has seen its distribution expand (generalise) in Djambarrpuyŋu. I relate this to formal treatments of natural language negation as a modal (necessity) operator (e.g. Ripley 2009, Wansing 2001). A modal treatment of negation can predict the emergence of a grammar where negation behaves morphosyntactically similarly to other modal particles, all encoding different ‘flavours’ of irrealis marking. Consequently, The analysis defended here treats **II** and **IV** as encoding temporal information in addition to a presupposition of *nonfactivity* (see also Krifka’s 2016 treatment of (antifactive) negative categories in Daakie (Vanuatuan)).

Consequences. Bhat’s (1999) influential study of ‘the prominence of tense, mood and aspect’ seeks to devise a linguistic typology based on the nature of the contrasts made in the morphosyntax of different languages (i.e. tense-/mood-/aspect-prominence). Given the variation in TMA realisation that forms the basis for Bhat’s typological work, a natural prediction

is that, diachronically, languages will be able to ‘shift between’ these categories. Work on semantic change has indeed demonstrated the existence of “grammaticalisation pathways” between these categories (*e.g.* PERF → PST; root modalities → FUT; see Bybee *et al.* 1991). Consequently, formal theories of TMA ought to be able to shed light on the possibility for reanalysis of these forms; they ought to *predict* the porousness of tense, mood and aspect *qua* grammatical categories (cf. Boneh 2016). The current study of the emergence of mood-based semantics for verbal inflections in Yolŋu contributes to this enterprise, given evidence that Djambarrpuyŋu has “repurposed” Yolŋu tense marking as providing modal information. As a result, this work has additional consequences for our conceptions of modal expression in natural language as well as the relation that negation and future-tense operators may bear to modal displacement more broadly.

Sel. References. Bhat (1999) *Prominence of Tense, Mood & Aspect* • Boneh (2016) On becoming a tense prominent system. *FoDS1* • Bower (2009) Conjugation class stability. *ICHL19* • Bybee, Perkins & Pacuglia (1991) *Evolution of Grammar* • Comrie (1985). *Tense* • de Haan (2012) Irrealis: fact or fiction? *Lang. Sci.* 34 • Heath (1981) *Ritharrŋu* • Krifka (2016) Realis & nonrealis modalities in Daakie. *SALT26* • Lowe (n.d.) *Grammar lessons in Gupapuyŋu* • Ripley (2009) *Negation in natural language* • Waters (1989) *Djinang & Djinba* • Wilkinson (1991) *Djambarrpuyŋu*.