

Preverbal modal markers in Kriol: an irrealis system?

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INTRODUCTION

INTRODUCTION

Today's presentation

- A discussion of Kriol preverbal modal markers.
- Not presenting the dozen of them individually.
- But discussing of the semantic principles underlying their organisation 'as a system'.
- Hoping for feedback.

!!Work in progress!!

Origin of the work

- Systematic study of individual Kriol modal markers.
- Preverbal and others.
- With Eva Schultze-Berndt and Denise Angelo following Eva's initiative.
- A 40 000-word manuscript.
- Schultze-Berndt, Ponsonnet & Angelo n.d.

INTRODUCTION

Origin of the work

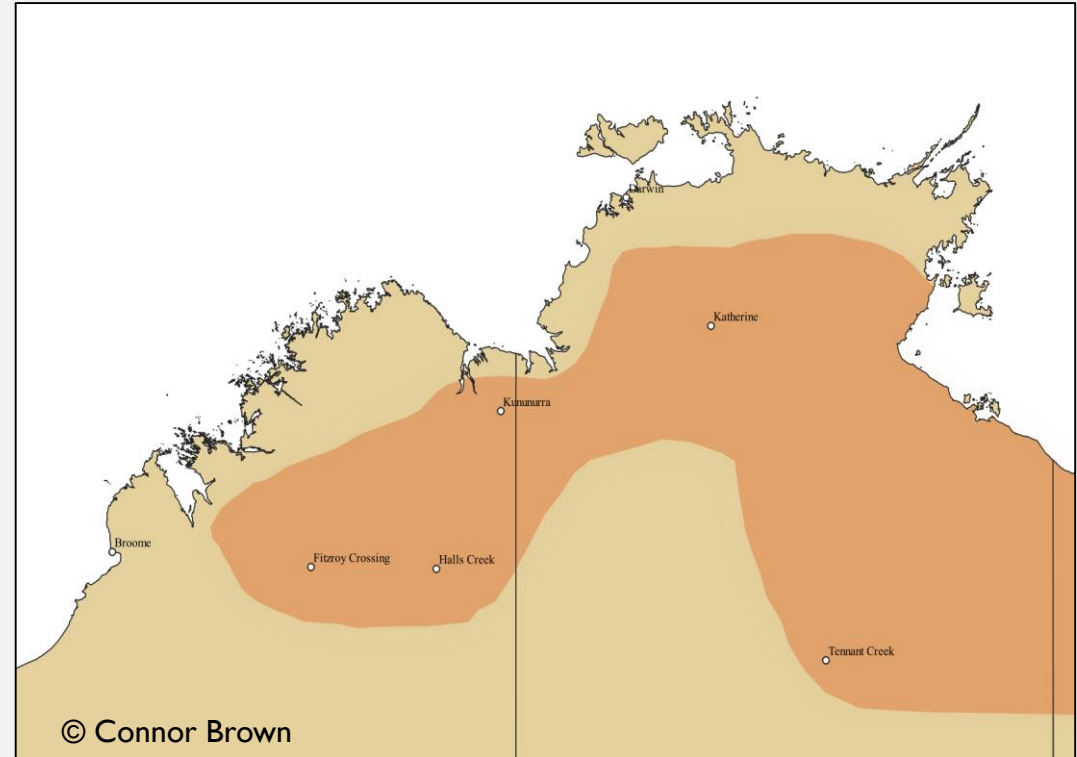
- Present analysis based on this descriptive foundation.
- Incorporating some of its analysis.
- As well as my own take on the 'system'.
- (My co-authors may not agree!)

LANGUAGE AND DATA

Kriol

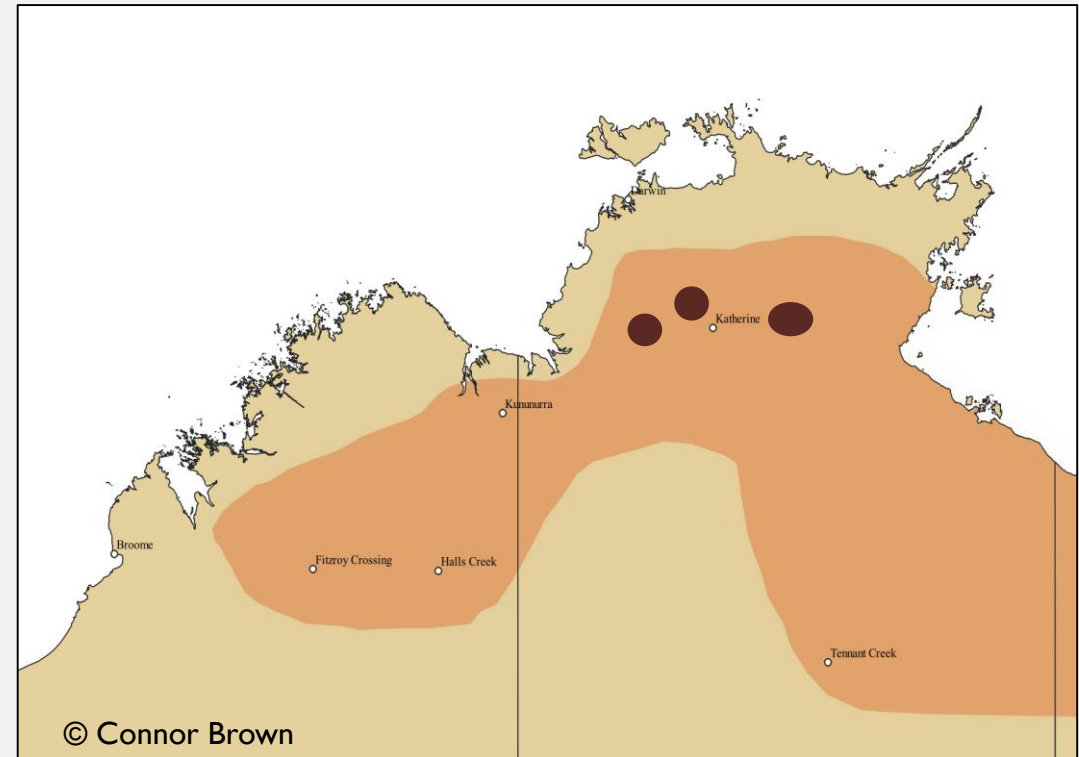
- English-based Kriol.
- 20 to 30,000 speakers across NT and WA.
- Multiple varieties.
- Debate on origins.

Sandefur 1979, 1986, Munro 2004, Schultze-Berndt et al. 2013, Dickson 2015, Ponsonnet 2020, Angelo 2021, Philips 2021 ...



The data

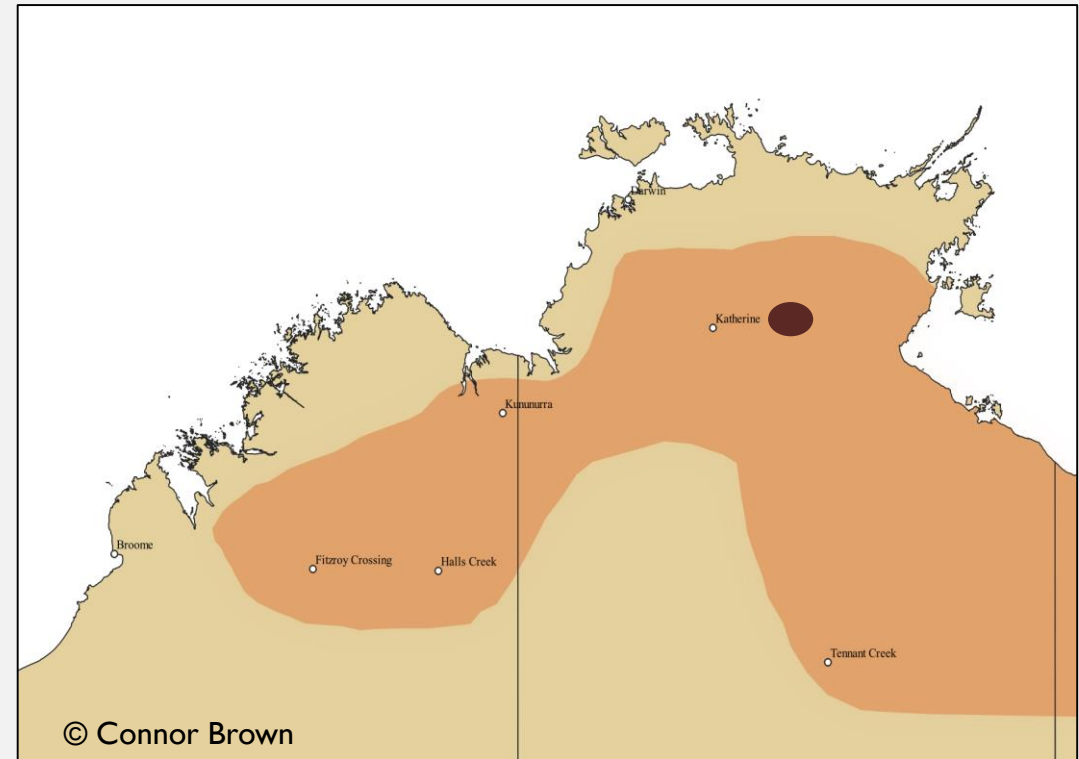
- Descriptions of modal markers based on :
- Angelo's Katherine data.
- Schultze-Berndt's 'west side' data.
- Ponsonnet's 'Barunga' data.
- Small differences.



LANGUAGE AND DATA

The data

- Systemic analysis based on ‘Barunga’ data.
- Collected around Barunga, Beswick, Weemol.
- 20h, collected 2014-2017.
- 20+ speakers 12 to 80 yo, mostly female.
- Complements from 2009.
- + L4 speaker’s intuitions.



Ingrid Ashley † Maggie Jentian

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June Jolly-Ashley

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† Maggie Tukumba † Queenie Brennan



THE CLASS OF MODAL MARKERS

THE CLASS OF MODAL MARKERS

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(1) *Ai gada tel-im-bat tubala stori [...]*

1SG FUT/OBLIG tell-TR-PLUR two story [...]

'I'll tell you-two a story [...]'

(2) *pipul kin jis gu-in insaid*

people PSSB just go-in inside

'People can just come inside.'

THE CLASS OF MODAL MARKERS

A class of verbal markers

- Used to describe events with lesser actuality.
- Always occur immediately before a main verb.
- (except when an aspectual marker comes in between).

- **Not fully criterial:**
- Do not usually combine with negation.
- Do not usually combine with tense.
- Do not usually combine with each other.

THE CLASS OF MODAL MARKERS

Other preverbal markers

Past marker *bin*

- Can also precede adjectives and adverbs
- Combines with negation

Aspectual markers

- Combine with past tense
- Combine with negation
- Combine with each other

THE CLASS OF MODAL MARKERS

PAST AND NEGATION

(3) *im nomo bin laig-i stop garra mibala*

3SG NEG PST like-TR stay COM 1pl.excl

'He didn't like to stay with us.'

ASPECT AND NEGATION

(4) *[im] neba yustu kam-bak think-ebat ba im lil-wan*

[3sg] NEG.PST CUST.PST come-back think-PST DAT 3sg.POSS little-SHFT

'[She] never used to come back or think about her little ones.'

THE CLASS OF MODAL MARKERS

MARKER	PROPOSED GLOSS	ETYMOLOGY
kin	PSSB ('possibility')	can
kud (adli)	PSSB.PST ('past possibility')	could (hardly)
mait	HYP ('hypothetical')	might
beda	PREF ('preference')	better
shud	OBLIG ('obligation')	should
labta var. abtu	NECESS ('necessity')	have to
(w)ana	VOL ('volitive')	want
(bin) ana	CTRF ('counterfactual')	want
shudbi var. shudbin, shuda	CTRF.OBLIG ('counterfactual obligation')	should, should have
kuden	IMPOSS.PST ('past impossibility')	couldn't
gada	FUT/OBLIG ('future/obligation')	got to
'I (only with 1st person)	FUT.INT	'll
kan	NOT.HAPP ('not happening')	can't

SEMANTICS OF MODAL MARKERS

SEMANTICS OF MODAL MARKERS

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MARKERS	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
				PARTICIPANT INTERNAL	PARTICIPANT EXTERNAL		EPISTEMIC	
					TELEOLOG.	DEONTIC		
kin	UT	>	\exists	ability	possibility	permission	(possibility)	PSSB ('possibility')
kud (adli)	Pre-UT	>	\exists	kud (adli)				PSSB.PST ('past possibility')
mait	UT	\geq	\exists				possibility	HYP ('hypothetical')
beda	UT	\geq	\exists		preference	(preference)		PREF ('preference')
shud	UT	>	\forall			obligation		OBLIG ('obligation')
labta	UT (+PST)	>	\forall	need	necessity	obligation		NECESS ('necessity')
(w)ana	UT (+PST)	>	\forall		necessity	obligation		VOL ('volitive')
(bin) ana	UT	\leq	(any)				foreclosed	CTRF ('counterfactual')
shudbi	UT	\leq	\forall			obligation	foreclosed	CTRF.OBLIG ('counterfactual obligation')
kuden	PreUT	>	$\forall(\neg p)$	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
gada	UT	>	\forall		(necessity)	(obligation)	realization	FUT/OBLIG ('future/obligation')
'l (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	$\forall(\neg p)$	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

SEMANTICS OF MODAL MARKERS

Overview of the table

- Temporal properties.
- Strength.
- Flavour.

MARKERS	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
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Temporal properties

- Mostly intrinsically defined and invariable.
- (Except for rare markers that combine with tense).

FUTURE ORIENTED

(5) *yu labta drink-im*

2SG NECESS drink-TR

(Said when handing a soothing drink:)

‘You have to drink it’

NON-FUTURE ORIENTED

(6) *bad dei shudbi bilib mibala*

but 3pl CTRF.OBLIG believe 1pl.excl

‘But they should have believed us’

Strength

- Determined for strength
- (Like English etyma.)
- Except (*bin*) *ana* (CTRF).

UNIVERSAL QUANTIFIER (NECESSITY - \forall , \square p)

(5) *yu labta drink-im*

2SG NECESS drink-TR

(Said when handing a soothing drink:)

'You have to drink it'

EXISTENTIAL QUANTIFIER (POSSIBILITY - \exists , \diamond p)

(2) *pipul kin jis gu-in insaid*

people PSSB just go-in inside

'People can just come inside.'

Flavour

- Variable flavour
- (Like English etyma.)

TELEOLOGICAL

(7) *komon sonson yu labta wok*
INTJ son:REDUP 2sg NECESS walk

Prompt to start the walk back home
after day out fishing:

‘Come on my son, you have to get started.’

DEONTIC

(8) *im-in labta kad-im dat her*
3sg-PST NECESS cut-TR DET hair

laik bla olebat tredishen-wei

CONJ DAT 3SG tradition-ADV

‘She had to cut her hair, like due to tradition.’

SEMANTICS OF MODAL MARKERS

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(w)ana	UT (+PST)	>	∀		necessity	obligation		VOL ('volitive')
(bin) ana	UT	≤	(any)				foreclosed	CTRF ('counterfact')
shudbi	UT	≤	∀			obligation	foreclosed	CTRF.OBLIG ('co')
kuden	PreUT	>	$\forall(\neg p)$	ability	ability		foreclosed	IMPOSS.PST ('pa')
gada	UT	>	∀		(necessity)	(obligation)	realization	FUT/OBLIG ('futu')
'l (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	$\forall(\neg p)$	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happer')

FIXED

VARIABLE



COUNTERFACTUALS

COUNTERFACTUALS

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shudbi CTRF.OBLIG ‘counterfactual obligation’

(9) *en ai bin get rili eingri...*

and 1SG PST get really angry

“nomo, yu shudbi halp-um-bat mi [...].”

NEG 2sg CTRF.OBLIG help-TR-PLUR 1SG.O

‘And I got really angry... “No, you should have been helping me [...].”’

shudbi CTRF.OBLIG ‘counterfactual obligation’

- Temporal : non.future-oriented (fixed)
 - Strength: universal quantification ($\square p$)
 - Flavour: mostly deontic
- } counterfactual

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and 1SG PST get really angry

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‘And I got really angry... “No, you should have been helping me [...].”’

shudbi **CTRF.OBLIG** ‘counterfactual obligation’

- Pragmatic derivation:
- $PST(\diamond p) \Rightarrow$ counterfactual (Verstraete 2005, Van Linden & Verstraete 2008)
- Scalar implicature based on Grice’s maxim of quantity.

some < all
some $\rightarrow \neg$ all

could have p < p
could have p $\rightarrow \neg$ p

COUNTERFACTUALS

shudbi **CTRF.OBLIG** ‘counterfactual obligation’

- This scalar implicature works beyond PST($\diamond p$).
- With any (less-than-necessary)x(foreclosed) combination.
- Pragmatically, the expression of necessity is weaker than simple statement.
- => Scalar implicature operates with any modal force.

// English
‘we should have been in Perth’

some < all
some $\rightarrow \neg$ all

could have p < p
could have p $\rightarrow \neg p$

should have p < p
should have p $\rightarrow \neg p$

***shudbi* CTRF.OBLIG ‘counterfactual obligation’**

- English ‘should have’ is linguistically composed of ($\square p$) and PST.
- Kriol *shudbi* is inherently non future (and invariable).
- Not analyzable in synchrony.
- And always expresses counterfactuality.

shudbi **CTRF.OBLIG** ‘counterfactual obligation’

- What insight other than etymological is there in qualifying it as NFUT(\square p)?
- Or as (\square p) in fact?
- When it only qualifies events that did *not* happen.
- And the same implicature to counterfactual would obtain with any strength.
- Is the characterization in terms of strength useful?

An English-informed analysis?

***shudbi* CTRF.OBLIG ‘counterfactual obligation’**

- Deontic counterfactuals reported for Australian languages.
 - E.g. =*kiya* in Western Garrwa (Mushin 2012 cited in Bednall 2023)
- Perhaps ‘counterfactual’ is a more relevant/important characterization?
- (In fact deontic counterfactual.)
- Than describing it in terms of its universal strength?

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(bin) ana CTRF ‘counterfactual’

- Etymologically from verb *(w)ana* ‘want’.
- Semantic drift away from ‘desire’ etymology is complete.
- Conditional clauses:

(10) *Na najing bambai im ana shad-im-of im feis if im ana sheim.*
no NEG.EMPH after 3SG CTRF shut-TR-off 3SG.POSS face if 3SG CTRF shame

(Responding to the suggestion that *sheim* may apply to a character on a picture)

‘no, it’s not the case, otherwise he would hide his face if he was ashamed’.

(bin) ana CTRF ‘counterfactual’

(11) *la Oenpelli im-in ana go-bak katja*

LOC place.name 3SG-PST CTRF go-back INTJ

(Discussing where someone should be buried:)

‘She [her corpse] should have gone back to Oenpelli for God’s sake.’

(12) *instedof im ana gib-it na im grenmatha*

instead.of 3SG CTRF give-TR LOC 3SG.POSS grandmother

bla meiki dat fonkol bla im bat im-in on the phone

DAT make-TR DET phonecall DAT 3SG but 3SG-PST [Engl.]

‘He should have given [the phone] to his grandmother to make the phonecall for him, but instead of that he was on the phone!’

Counterfactual sense
with or without past marker.

(bin) ana **CTRF** ‘counterfactual’

- Etymologically: want + NFUT
- (less.than.certain)x(foreclosed)
- Same scalar implicature as with *shudbi*.
- Uncertainty of past event => counterfactual

some < all
some $\rightarrow \neg$ all

wanted p < p
wanted p $\rightarrow \neg$ p

(11) *la Oenpelli im-in ana go-bak katja*

LOC place.name 3SG-PST CTRF go-back INTJ

(Discussing where someone should be buried:)

‘She [her corpse] should have gone back to Oenpelli for God’s sake.’

(bin) ana **CTRF** 'counterfactual'

- In this case the underlying modal strength is not even determined.
- And the flavour is also undetermined.
- So the strength/flavour characterisation is of little use.

COUNTERFACTUALS

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FUTURE AND QUANTIFICATION

FUTURE & QUANTIFICATION

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Strength not a core characterisation of *gada* (FUT/OBL) and *kan* (NOT.HAPP)

- Argument: they are not fundamentally quantifying modal markers.
- Because their primary semantics is future.
- And as such they are not at the top of the quantifying scale.
- But outside the quantifying scale.

This argument is under construction...

Modality as quantification over possible worlds

- Existential quantifiers (possibility - $\exists, \diamond p$)
- Universal quantifiers (necessity - $\forall, \Box p$)

Existential
Universal

Modality beyond quantification

irrealis domain

- Evoked possible worlds include:
- All epistemically open events i.e. future events
- Foreclosed events i.e. counterfactuals

Events evoked	Projection	Relevance of strength
Open (future or., realization unsettled)	Existential	Quantifying
	Universal	
	Future	Non-quantifying
Foreclosed (past orient°, unrealized)	Counterfactual	

Modality beyond quantification

irrealis domain

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FUTURE & QUANTIFICATION

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(bin) ana	UT	\leq	(any)				foreclosed	CTRF ('counterfactual')
shudbi	UT	\leq	(\forall)			obligation	foreclosed	CTRF.OBLIG ('counterfactual obligation')
kuden	PreUT	>	($\forall(\neg p)$)	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
gada	UT	>	\forall		(necessity)	(obligation)	realization	FUT/OBLIG ('future/obligation')
'I (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	$\forall(\neg p)$	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

Gada (FUT/OBL) and quantifying modality

(13) *Dat sheid dei du-m-bat yu bin luk mmh...*

DET shade they do-TR-PLUR 2sg PST see INTJ

bat dat boks gada bi iya fraidei.

but DET coffin FUT/OBLIG be here friday.

(Explaining the preparations for a funeral:) ‘They are doing the shade [to put the coffin before the event], you saw it, mmm. But the coffin will be here on Friday.’

(1) *Ai gada tel-im-bat tubala stori [...]*

1SG FUT/OBLIG tell-TR-PLUR two story [...]

(About to begin a narrative in the presence of two young children:)

‘I’ll tell you-two a story [...].’

***Gada* (FUT/OBL) and quantifying modality**

- Mostly future, i.e. stereotypical expectations.
- I.e very neutral flavour.
- Simply asserts future events without quantification on 'possible worlds'.

Gada (FUT/OBL) and quantifying modality

- Extensions to obligation (teleological or deontic).
- Pragmatically bridged by standard future.

(14) *Dei gada kros-oba deya na bobala*

3PL FUT/OBLIG cross-over there EMPH INTJ

‘They’re going to cross just there, oh dear.’

Gada (FUT/OBL) and quantifying modality

- Extensions to obligation (teleological or deontic).
- Either as connotations of standard future.
- Or more clearly deontic, in commands.
 - Not super clearly attested in Barunga data.

(15) *Had-bala* *yu* *gada* *tok!*

loud-ADV 2SG FUT/OBLIG talk

‘You have to speak loudly!’ (Angelo, Binjari, BRT7)

'etymology' # primary sense in synchrony

Gada (FUT/OBL) and quantifying modality

- *Gada* is primarily future in my Barunga corpus.
- Quantifying senses are rarer and better regarded as pragmatic extensions.
- It is the only future marker with positive polarity.

Quantifying	Existential	<i>mait, kin</i>
	Universal	<i>labta, (w)ana, shud, (gada)</i>
Non-quantifying	Future	<i>gada</i>

FUTURE & QUANTIFICATION

MARKERS	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
				PARTICIPANT INTERNAL	PARTICIPANT EXTERNAL		EPISTEMIC	
					TELEOLOGICAL	DEONTIC		
kin	UT	>	\exists	ability	possibility	permission	(possibility)	PSSB ('possibility')
kud (adli)	Pre-UT	>	\exists	kud (adli)				PSSB.PST ('past possibility')
mait	UT	\geq	\exists				possibility	HYP ('hypothetical')
beda	UT	\geq	\exists		preference	(preference)		PREF ('preference')
shud	UT	>	\forall			obligation		OBLIG ('obligation')
labta	UT (+PST)	>	\forall	need	necessity	obligation		NECESS ('necessity')
(w)ana	UT (+PST)	>	\forall		necessity	obligation		VOL ('volitive')
(bin) ana	UT	\leq	(any)				foreclosed	CTRF ('counterfactual')
shudbi	UT	\leq	(\forall)			obligation	foreclosed	CTRF.OBLIG ('counterfactual obligation')
kuden	PreUT	>	($\forall(\neg p)$)	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
gada	UT	>	(\forall)		(necessity)	(obligation)	realization	FUT/OBLIG ('future/obligation')
'I (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	$\forall(\neg p)$	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

***kan* (NOT.HAPP) and quantifying modality**

- Like its etymon *can't*, Kriol *kan* can express impossibility:
- Deontic.
- Teleological.
- Participant-internal.
- Or (marginally) epistemic.

TELEOLOGICAL IMPOSSIBILITY

(16) *Ai kan go if ai got no mudiga...*

1SG NOT.HAPP go if 1SG have NEG car

'I can't go if I don't have a car...'

DEONTIC IMPOSSIBILITY

(17) *...en im lat "na yu kan teik-im, na"*

and 3SG like.that no 2SG NOT.HAPP take-TR no

(About borrowing a rake:) 'And he goes "no, you can't take it, no."'

***kan* (NOT.HAPP) and quantifying modality**

- It is therefore tempting to interpret it as a simple universal quantifying marker.
- With negative polarity i.e $(\Box \neg p) = (\neg \Diamond p)$
- But...

Quantifying	Existential	<i>(kin jis libum, madi kan...)</i>
	Universal	<i>kan</i>
Non-quantifying	Future	

***kan* (NOT.HAPP) and quantifying modality**

- It is also a non-quantifying future.
- And the only future marker with negative polarity.

kan (NOT.HAPP) and quantifying modality

- Many occurrences translate better with a negative future.

(18) *Yu gada ab-um gud-wan haus [...]*
 2sg FUT/OBL have-TR good-SHFT house [...]

yu kan ged-im-bat wada lat
 2sg NOT.HAPP get-TR-PLUR water like.that

yu go sidan langa gud haus garra wada en ebrithing oredi bala.
 2sg do sit/be LOC good house COM water and everything already INTJ

[Making plans after getting a job.]

‘You’ll have a good house, you won’t be fetching water like this, you go and live in a good house with (running) water and everything set up.’

***kan* (NOT.HAPP) and quantifying modality**

- Only spontaneous negative future.
- NEG+FUT *nomo gada* not spontaneous and only marginally accepted.

(19) MP: *im nomo gada kom garra mi?*

3SG NEG FUT/OBL come with 1SG

[after several iterations of the above:]

IA: *im nomo gada kom garra yu*

3SG NEG FUT/OBL come with 2SG

im kan go garra yu lakijat, dat shotwei na mmm.

3SG NOT.HAPP go with 2SG like.that DET short.way FOC INTJ.approb

MP: 'She will not [*nomo gada*] come with me?'

IA: 'She will not [*nomo gada*] come with you, she won't [*kan*] go you say, that's the straightforward way, mmm.'

***kan* (NOT.HAPP) and quantifying modality**

- So *kan* occupies both cells:
- Universal quantifying marker.
- Non-quantifying future marker.

Quantifying	Existential	<i>(kin jis libum, madi kan...)</i>
	Universal	<i>kan</i>
Non-quantifying	Future	<i>kan</i>

Deal (2011) '[Quantifying] Modals without scale'

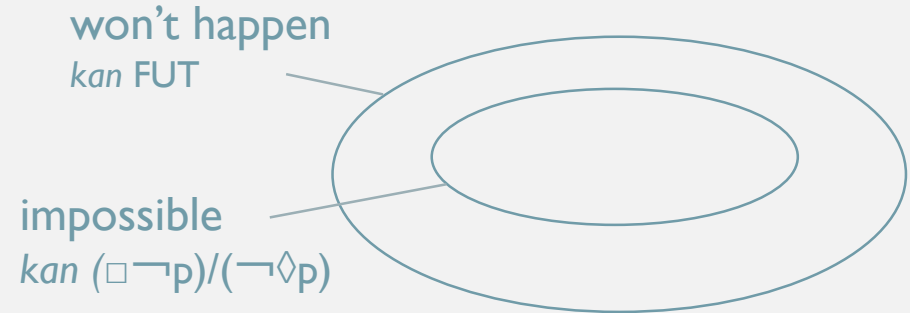
kan (NOT.HAPP) and quantifying modality

- Ultimately an artefact of analysis?
- Core insight: the future value of *kan* is important.

Quantifying	Existential	<i>(kin jis libum, madi kan...)</i>			
	Universal	<i>kan</i>	<i>kan</i>	<i>kan</i>	↑ <i>kan</i>
Non-quantifying	Future	<i>kan</i>		↓ <i>kan</i>	

kan (NOT.HAPP) and quantifying modality

- Impossible events subset of events that won't happen.
- A monosemous 'future' interpretation would work.
- A monosemous 'impossible' interpretation wouldn't.



Argument under construction...

Quantifying	Existential	(kin jis libum, madi kan...)			
	Universal	<i>kan</i>	<i>kan</i>	<i>kan</i>	<i>kan</i>
Non-quantifying	Future	<i>kan</i>		<i>kan</i> ↓	<i>kan</i> ↑

kan (NOT.HAPP) and quantifying modality

- Quantifying modals are marked counterparts of non-quantifying devices.
- A marked feature without an unmarked counterpart?? (Frege 1884).
 - A language without a future marker??

Argument under construction...

Quantifying	Existential	(kin jis libum, madi kan...)			
	Universal	<i>kan</i>	<i>kan</i>	<i>kan</i>	↑ <i>kan</i>
Non-quantifying	Future	<i>kan</i>		↓ <i>kan</i>	

FUTURE & QUANTIFICATION

MARKERS	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
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labta	UT (+PST)	>	\forall	need	necessity	obligation		NECESS ('necessity')
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kuden	PreUT	>	($\forall(\neg p)$)	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
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'I (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	($\forall(\neg p)$)	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

***Gada* and *kan* not well characterized as quantifying modals**

- Non-quantifying modal # not modal.
- If we understand modality in the broader acceptance of ‘irrealis’.

Events evoked	Projection	Relevance of strength
Open (future or., realization unsettled)	Existential	Quantifying
	Universal	
	Future	Non-quantifying
Foreclosed (past orient°, unrealized)	Counterfactual	

AN IRREALIS SYSTEM

AN IRREALIS SYSTEM

MARKERS	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
				PARTICIPANT INTERNAL	PARTICIPANT EXTERNAL		EPISTEMIC	
					TELEOLOGICAL	DEONTIC		
kin	UT	>	∃	ability	possibility	permission	(possibility)	PSSB ('possibility')
kud (adli)	Pre-UT	>	∃	kud (adli)				PSSB.PST ('past possibility')
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beda	UT	≥	∃		preference	(preference)		PREF ('preference')
shud	UT	>	∀			obligation		OBLIG ('obligation')
labta	UT (+PST)	>	∀	need	necessity	obligation		NECESS ('necessity')
(w)ana	UT (+PST)	>	∀		necessity	obligation		VOL ('volitive')
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kuden	PreUT	>	(∀(¬p))	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
gada	UT	>	(∀)		(necessity)	(obligation)	realization	FUT/OBLIG ('future/obligation')
'I (1st person)	UT	>	NA	intentions				FUT.INT
kan	UT	>	(∀(¬p))	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

AN IRREALIS SYSTEM

MARKERS	PROJECTION	DEFAULT TIME ANCHOR	TEMPORAL ORIENTATION	STRENGTH	MODAL FLAVOURS				PROPOSED GLOSS
					PARTICIPANT INTERNAL	PARTICIPANT EXTERNAL		EPISTEMIC	
						TELEOLOGICAL	DEONTIC		
kin	∃	UT	>	∃	ability	possibility	permission	(possibility)	PSSB ('possibility')
kud (adli)	∃	Pre-UT	>	∃	kud (adli)				PSSB.PST ('past possibility')
mait	∃	UT	≥	∃				possibility	HYP ('hypothetical')
beda	∃	UT	≥	∃		preference	(preference)		PREF ('preference')
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labta	∇	UT (+PST)	>	∇	need	necessity	obligation		NECESS ('necessity')
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kuden	CTRF	PreUT	>	(∇)(¬p)	ability	ability		foreclosed	IMPOSS.PST ('past impossibility')
gada	FUT	UT	>	(∇)		(necessity)	(obligation)	realization	FUT/OBLIG ('future/obligation')
'I (1st person)	(FUT?)	UT	>	NA	intentions				FUT.INT
kan	FUT	UT	>	(∇)(¬p)	impossibility	impossibility	impossibility	non-realization	NOT.HAPP ('not happening')

What difference does it make?

- The semantic space over which these modals distribute.
- The key notion is ‘irrealis’.
- Resemblance with ‘typically Australian’ semantic profiles
 - Verstraete 2005, McGregor & Wagner 2006, Nordlinger & Caudal 2012, Bednall 2020, Bednall 2023, *inter alia*
- Kriol is more Australian-like than it looks?
- And less-English like than it looks.

What difference does it make?

- Relation with English markers.
- Borrowing of unanalysable, invariable *forms*.
- # Semantics of forms is not borrowed from English.
- Is it transferred? 'Inspired' by Australian systems?
- ...

What light does it shed on English modals?

THANK YOU!