



# Word Order and Information Structure in Kelabit

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# Introduction



- In this paper, I explore the interaction between **symmetrical voice**, **word order** and **information structure** in the Kelabit language of Northern Sarawak.
- The aim of this paper:
  - To consider how **information structure** interacts with syntactic choices
  - To consider the implications for **WAn voice systems** and **information structure** more generally

# Outline



1. Features of Kelabit Grammar
2. Information Structure
3. Information Structure and Word Order in Kelabit
4. Conclusions



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# Features of Kelabit Grammar

# Background



- **Kelabit** is a Western Austronesian (WAn) language spoken mainly in the Fourth and Fifth divisions of Sarawak, Malaysia (Martin 1996).
- It is part of the **Apad Uat** subgroup of Northern Sarawak which also includes Lun Bawang/Lundayeh, and Sa'ban (Kroeger 1998).
- Data is based on **fieldwork** in **Bario** from 2013-2019 and consists of elicited **grammaticality judgements** and **naturalistic corpus examples**.



# Symmetrical Voice



## (1a) Actor Voice

Nekuman *buɑ' kabɛr*

PFV.AV.eat pineapple

'The man ate pineapple'

*la'ih sineh*  
man DEM

Subject

## (1b) Undergoer Voice

Kinan *la'ih sineh buɑ' kabɛr*

PFV.UV.eat man DEM pineapple

'The man ate pineapple'

GFs are distinguished by **word order** and optional pre-subject particles (*teh* & *neh*)

Subject



# Kelabit Word Order

(2a) **La'ih sineh** nekuman *bua' kaber*  
 man DEM PFV.AV.eat pineapple  
 'The man ate the pineapple'

(2b) \**bua' kaber* nekuman **la'ih sineh**

(2c) **Bua' kaber** kinan *la'ih sineh*  
 pineapple pfv.uv.eat man dem  
 'The man ate pineapple'

(2d) \**la'ih sineh* kinan **bua' kaber**

The **subject** can appear pre-verbally, whilst the *non-subject* cannot

# Kelabit Word Order



(3a) Nekuman    **la'ih**    **sineh**    *bua'*    *kaber*  
PFV.AV.eat    man    DEM    pineapple  
'The man ate pineapple'

(3b) \*Kinan            *bua'*    *kaber*    *la'ih*    *sineh*  
pfv.uv.eat        pineapple    man  
FOR: 'The man ate pineapple'

In AV, **VSO** order is also possible & attested

# Kelabit Word Order



	SVO	VOS	VSO
AV	✓ = AVU	✓ = VUA	✓ = VAU
UV	✓ = UVA	✓ = VAU	

All else being equal, there is a preference for **actor** before **undergoer**

Deviations from this tend to be associated with **marked** readings

# Focus Fronting



- It is possible for focus information to be fronted in an **inversion construction** using the particle *teh* (cf. *ang* in Tagalog)

(4a) **Peter** *teh* suk kuman *bua'* *kaber*  
Peter PT REL AV.eat pineapple  
'It was Peter who ate the pineapple'

(4b) *Bua'* *kaber* *teh* kinan *Peter*  
Pineapple PT UV.PFV.eat Peter  
'It was pineapple that Peter ate'

# Summary



- Kelabit has **symmetrical voice** alternations
- These allow different arguments to be mapped to **subject** and appear in **pre-verbal position**
- There is also an **external position** for contrastive focus (using the **teh** construction)
- Q: What is the role of **information structure** in these choices?



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# Information Structure

# Information Structure

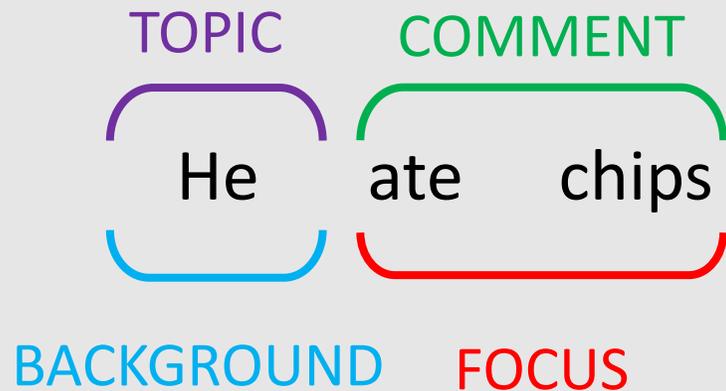


- **Information structure** can be understood as a formal mechanism for facilitating effective information exchange or update (Dalrymple and Nikolaeva 2011, Erteschik-Shir 2007).
- Among the most important information structure roles are **topic** and **focus**:
  - **Topic** is an entity that the speaker **identifies** and **about** which a proposition is made (Krifka 2008)
  - **Focus** is the **informative** part of the proposition and indicates the presence of **alternatives** (Krifka 2008)

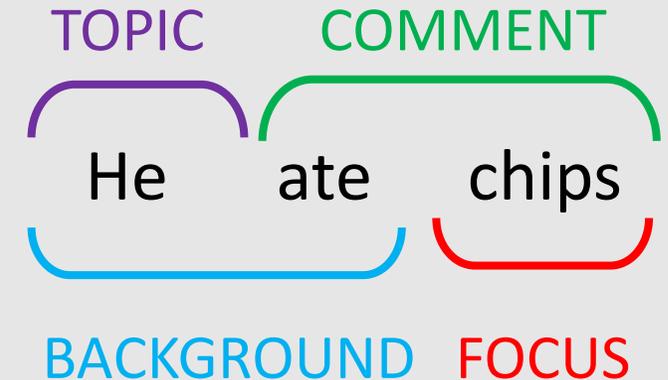
# Information Structure

- These allow us to divide the information according to two major distinctions:
  - Topic vs Comment
  - Focus vs Background

CONTEXT: What did Peter do?



CONTEXT: What did Peter eat?





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# Information Structure & Word Order in Kelabit

# Kelabit Word Order



- **Word order** can be used as a strategy to mark **information structure** by placing **focus** information before the **background**.
- This can be seen if we explore:
  - a) Question/Answer pairs
  - b) Negative Contrast
- This involves the **initial position** and also **inversion** constructions with **teh**

# Narrow Focus (Q&A)



## (6) Focused Actor

Q. **lih** nemupu' *John*?  
who AV.PFV.hit John  
'Who hit John?'

A. **[Andy]<sub>focus</sub>** nemupu' *John*  
Andy AV.PFV.hit John  
'Andy hit John'

## Focused Undergoer

Q. **lih** pinupu' *Andy*?  
who UV.PFV.hit Andy  
'Who did Andy hit?'

A. **[John]<sub>focus</sub>** pinupu' *Andy*  
John UV.PFV.hit Andy  
'Andy hit John'

# Narrow Focus (Q&A)



## (10a) Focused Actor

\*nemupu'     *John*     [iih]<sub>focus?</sub>

AV.PFV.hit     John     who

For: 'who hit John?'

Focus > Background

## (10b) Focused Undergoer

\*pinupu'     *Andy*     [iih]<sub>focus?</sub>

UV.PFV.hit     Andy     who

For: 'who did Andy hit?'

# Predicate Focus (Q&A)



## (7) Focused predicate (verb+undergoer)

Q. **Enun** tu'en *neh*?  
what UV.IRR.do 3SG.GEN  
'What is he doing?'

A. [Kuman *bua'* *kaber* *nedih*]<sub>focus</sub> **t=ieh**  
AV.eat fruit pineapple 3SG.POSS PT=3SG.NOM  
'He's eating his pineapple'



# Predicate Focus (Q&A)

## (8) Focused predicate (verb+actor)

Q. Peh neto' **bua'** **suk** **na'ai**?

where PT fruit REL before

'what happened to/where is that fruit?'

A.

[Kinan **uih**]<sub>focus</sub>

UV.PFV.eat 1SG.NOM

'I ate it'

**n=idih**

PT=DEM

Focus > Background



# Adjunct Focus (Q&A)

- (9a) Idan teh **Peter** kuman **buah'** **kaber** nedih?  
 when PT Peter AV.eat pineapple 3SG.POSS  
 'When will Peter eat his pineapple?'

Focus > Background

- (9b) [Na'an]<sub>focus</sub> teh **Peter** kuman **buah'** **kaber** nedih  
 later PT Peter AV.eat pineapple 3SG.POSS  
 Peter will eat his pineapple later.

# Summary



Context	Word Order	Voice
Narrow Focus on <b>Actor</b>	[A]VU	Actor Voice
Narrow Focus on <b>Undergoer</b>	[U]VA	Undergoer Voice
Predicate Focus on <b>Verb+Undergoer</b>	[VU]A	Actor Voice
Predicate Focus on <b>Verb+Actor</b>	[VA]U	Undergoer Voice
Narrow Focus on a <b>Time Adverbial</b>	[X]AVU	Actor Voice

Focus > Background

# Narrow Focus (Negation)



CONTEXT: Did Andy hit John yesterday?

(12a) Not Andy...

<b>[Paul]</b> <sub>focus</sub>	<b>teh</b>	<b>suk</b>	nemupu'	<i>ieh</i>
Paul	PT	REL	PFV.AV.hit	3SG.NOM

'It was Paul who hit him (John)'

(12b) Not John...

<b>[Paul]</b> <sub>focus</sub>	<b>teh</b>	<b>suk</b>	pinupu'	<i>neh</i>
Paul	PT	REL	UV.PFV.hit	3SG.GEN

'It wasn't John, it was Paul that he (Andy) hit'

# Predicate Focus (Negation)



CONTEXT: did Andy hit John yesterday?

(13c) Andy didn't hit John

[nemepag	<i>Paul</i> ] <sub>focus</sub>
AV.PFV.slap	Paul

'He slapped Paul'

**t=ieh**

PT=3SG

(13d) Andy didn't hit John...

[pipag	<i>uih</i> ] <sub>focus</sub>
UV.PFV.slap	1SG.NOM

'I slapped John'

**t=ieh**

PT=3SG.NOM

# Adjunct Focus (Negation)



Context: did Andy hit John yesterday?

(14a) **Not yesterday...**

[edto ma'un]<sub>focus</sub>

day before

**t=ieh**

PT=3SG.NOM

pinupu'

UV.PFV.hit

*neh*

3SG.GEN

'It was the day before that he hit him'

(14b) [edto ma'un]<sub>focus</sub>

day before

**t=ieh**

PT=3SG.NOM

nemupu'

AV.PFV.hit

*ieh*

3SG.NOM

'It was the day before that he hit him'



# Negation Test (corrective focus)

(15a) **Andy didn't hit John...**

#**ieh**

3SG.NOM

FOR: 'he slapped Paul'

[nemepag *Paul*]<sub>focus</sub>

AV.PFV.slap Paul

(15b) **Not yesterday...**

#pinupu'

UV.PFV.hit

FOR: 'he hit him the day before'

*neh*

3SG.GEN

**t=ieh**

PT=3SG.NOM

[edto ma'un]<sub>focus</sub>

day.before

# Summary



Context	Word Order	Voice
Narrow Contrast on <b>Actor</b>	[A] teh VU	Actor Voice
Narrow Contrast on <b>Undergoer</b>	[U] teh VA	Undergoer Voice
Predicate Contrast on <b>Verb+Undergoer</b>	[VU] teh A	Actor Voice
Predicate Contrast on <b>Verb+Actor</b>	[VA] teh U	Undergoer Voice
Narrow Contrast on a <b>Time Adverbial</b>	[X] teh AVU	Actor Voice

Focus > Background

# Summary



- **Word order** can be used as a strategy for marking information structure in placing **focus** before **background** information
- Using the **teh inversion construction** appears to be particularly associated with **contrast**.
- This gives us contexts for many of the orders that we saw were possible – but doesn't explain everything (e.g. VSO? and the prevalence of SVO)...



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# Other Word Order Patterns



# Word Order & Information Structure

- **Non-subject arguments** can be focused *in situ* – so long as the subject follows. This is shown by the same tests:
  - a) Question/Answer Pairs
  - b) Negative Contrast

# Narrow Focus (Q&A)



## (16a) Focused Undergoer

Q. Nekuman *enun* **teh** **Peter** ngimalem?  
AV.PFV.eat what PT Peter yesterday  
'What did Peter eat yesterday?'

A. Nekuman [*bua' kaber*]<sub>focus</sub> **t=ieh** ngimalem  
AV.PFV.eat fruit pineapple PT=1SG.NOM yesterday  
'What did Peter eat yesterday?'

,

# Narrow Focus (Q&A)



## (16b) Focused Actor

Q. Kenen *iih* neh *bua'* *kaber* *sineh*?  
UV.IRR.eat who PT fruit pineapple DEM  
'Who will eat the pineapple?'

A. Kenen [*Peter*]<sub>focus</sub> neh *bua'* *kaber* *sineh*  
UV.IRR.eat Peter PT fruit pineapple DEM  
'Peter will eat the pineapple'

# Narrow Focus (Negation)



Context: did Andy hit John yesterday? NO...

(17a) **Not John...**

nemupu'

AV.PFV.hit

'He hit Paul'

[Paul]<sub>focus</sub>

Paul

t=ieh

PT=3SG.NOM

(17b) **Not Andy...**

pinupu'

UV.PFV.hit

'Paul hit him.'

[Paul]<sub>focus</sub>

Paul

t=ieh

PT=3SG.NOM

# Summary



Context	Word Order	Voice
Narrow Contrast on Actor	V[A] teh U	Undergoer Voice
Narrow Contrast on Undergoer	V[U] teh A	Actor Voice



# Word Order & Information Structure

- **SVO** in AV appears to be a possible means of expressing many different focus constructions:
  - a) narrow focus on the actor
  - b) narrow focus on the undergoer
  - c) predicate focus
  - d) broad/sentence focus

# Narrow Focus (Q&A)

(18) **Focused Undergoer**

Q. Kuman *enun* **t=ieh**?  
AV.eat what PT=3SG.NOM?  
'What is Peter eating?'

A. neh **ieh** kuman [*bua'* *kaber* *neh*]<sub>focus</sub>  
DEM Peter AV.eat fruit pineapple DEM  
'Peter is eating pineapple'

# Predicate Focus (Q&A)



## (19) Focused Predicate

Q. naru' *enun* **Peter**?

AV.do what Peter?

'what is Peter doing?'

A. neh **Peter**

DEM Peter

[kuman *bua'* *kaber*]<sub>focus</sub>

AV.eat fruit pineapple

'Peter is eating pineapple'

# Broad Focus (Q&A)



## (20) Focused Sentence

Q. Kapeh tebey’?  
how actually  
‘What happened?’

A. [nih **Peter** kuman *bua’* *kaber* *nedih*]<sub>focus</sub>  
DEM Peter AV.eat fruit pineapple 3SG.POSS  
‘Peter is eating pineapple’

# Summary



Context	Word Order	Voice
Narrow Contrast on <b>Actor</b>	AVU	Actor Voice
Narrow Contrast on <b>Undergoer</b>	AVU	Actor Voice
Predicate Focus on <b>Verb</b> + <b>Undergoer</b>	AVU	Actor Voice
Broad Focus	AVU	Actor Voice



# Word Order & Information Structure

- **Topic-comment** structure (e.g. with continuing topics in narratives) can also be expressed using UV VOS clauses and AV VSO clauses...
- We can see this in:
  - a) narrative sequences
  - b) IS translation exercise

# Narrative Sequences



(21) **Continuing Topic (UV VOS)**

Nalap

*neh*

*pupu'*

UV.PFV.fetch

3SG.GEN

hitting.implement

'She [Dayang Beladan] fetched something to hit with'

Nukab

*neh*

*bubpu'*

*daan*

UV.PFV.open

3SG.GEN

door

hut

'Opened the door to the hut'

Nalap

*neh*

*dteh*

*kayuh*

UV.PFV.fetch

3SG.GEN

one

stick

'Picked up a piece of wood'

# Narrative Sequences



(22) **Continuing Topic (AV VSO)**

Ngalap-ngalap

AV.pick-REDUP

‘So he was picking fruit’

t=ieh

PT=3SG

*bua'*

fruit

# Translation Exercise



Cats are so aggressive. They chase squirrels. They chase birds. Some even chase dogs. I also heard that cats were seen chasing a small kangaroo in Australia. They also chase rats, of course. But that is good.

- (23a) **Ideh** ngalo *labo puur*. **Ideh** ngalo *manuk* [...] **ideh** peh ngalo *labo l'ek* meto' (SVO)
- (23b) Ngalo **tideh** *labo puur*. Ngalo **tideh** *manuk* [...] Ngalo **tideh** *labo l'ek* meto' (VSO)
- (23c) Metanur *labo puur* **nideh**. Metanur *manuk* **nideh** [...] kineh **tideh** metanur *labo l'ek* (VOS)
- (23d) Tu'en *deh* metanur teh *labo puur*. Tu'en *deh* metanur teh *manuk* [...] Tu'en *deh* metanur ayu' teh *labo l'ek*. (UV VOS)

# Summary



Context	Word Order	Voice
Predicate Focus on <b>Verb</b> +Undergoer, continuing <b>actor</b> topic.	AVU	Actor Voice
Predicate Focus on <b>Verb</b> +Undergoer, continuing <b>actor</b> topic.	VAU	Actor Voice
Predicate Focus on <b>Verb</b> +Undergoer, continuing <b>actor</b> topic.	VUA	Actor Voice
Predicate Focus on <b>Verb</b> +Undergoer, continuing <b>actor</b> topic.	VAU	Undergoer Voice

# Summary



- Fronting can be used as a strategy for marking **information structure** – specifically indicating the status of information as **focused**.
- The **voice alternations** can facilitate this in mapping different arguments to different functions.
- However, there is no **one-to-one link** between position, function and information structure role... since both subjects and non-subjects can be topic and focus and both pre-verbal and post-verbal positions can be associated with these roles.

# Summary



- Q. Is there a difference between narrow focus in initial position and focus in-situ?
- Possible hypothesis to explore: fronting is associated with **contrast/prominence** – whilst new focus can also be associated with default positions.
- This might explain why the **teh construction** is preferred in the negative contrast contexts!
- If so, perhaps this provides some additional support for distinguishing between different **subtypes** of topic and focus and including contrast as a separate feature...



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# Conclusion

# Conclusion



- In this paper, I explored the interaction between **voice**, **word order** and **information structure** in Kelabit.
- I have shown that there is a preference for ordering **focus** before **background** which can be achieved by realising the **subject pre-verbally**, realising the **VP initially**, or fronting **an oblique/adjunct** to an **external position** and using **teh inversion**.
- However, I have also shown that neither **voice** nor **word order** is fully determined by information structure since the same context can result in different syntactic choices.

# Conclusion



- This suggests that **voice** (or subject selection) should be thought of as independent from **information structure**
- It also suggests that **word order** is just one of many possible strategies for marking information structure, including perhaps **morphological markers** and **prosody**.
- This motivates the interesting question of what differences emerge between these strategies and whether fronting is linked to overt **contrast/prominence** perhaps motivating finer distinctions between contrast, topic and focus.



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**Many Thanks!**



# Hanging Topic Construction

- It is also possible to have **hanging topics** in the left periphery (co-referenced by a pronoun).

(4a) Paul kedieh, nekuman *bua'* *ebpuk* **t=ieh**  
 Paul EMPH.3SG AV.PFV.eat fruit passion PT=3SG.NOM  
 'As for Paul, he ate passion fruit'

(4b) Bua' ebpuk suk na'ai, kinan *Paul* **n=idih**  
 fruit passion REL afore UV.PFV.eat Paul PT=DEM  
 'As for the passionfruit, Paul ate it.'



# Hanging Topic Construction

(4c) Paul kedieh, kinan *neh* *bua'* *ebpuk*  
 Paul 3SG.EMPH UV.PFV.eat 3SG.GEN fruit passion  
 'As for Paul, he ate the passion fruit'

(4d) Tapi bulu' sineh, kiteb *neh* *pa'up ena'* *ih,* bukuh ih  
 but bamboo DEM UV.PFV.cut 3SG.GEN end PRO PT edge PT  
 'but that bamboo, he had cut both ends off'



The hanging topic can correspond a **contrastive topics** or **frame setter**