

26th South of England LFG Meeting
27th October 2018

The Subject Grammatical Function in Western Austronesian

Charlotte Hemmings
University of Oxford
charlotte.hemmings@ling-phil.ox.ac.uk

1. Introduction

- ❖ The grammatical function ‘subject’ is often taken as fundamental in typological and syntactic work (see e.g. Bresnan et al. 2016, Li 1976).
- ❖ However, it remains controversial whether subjects really exist in Western Austronesian (WAn) languages on account of their unusual systems of verbal morphology and the so-called ‘split’ in subject properties between the actor and the argument privileged by the verbal morphology (Schachter 1976, Falk 2006).
- ❖ This has led some to claim that ‘subject’ is not an applicable notion, treating the privileged argument as a topic, and others to argue over whether the subject is best equated with the actor or the privileged argument (Kroeger 1993a).
- ❖ In this talk, I address the debate in relation to empirical data from Kelabit, a WAn language spoken in Northern Sarawak, Malaysia.
- ❖ Using cross linguistic and language specific tests, I show that there are good arguments for considering the privileged argument to be the grammatical subject, rather than a topic or absolutive. Moreover, there are arguments for treating the actor as an object in non-actor voice constructions, rather than a subject.
- ❖ Consequently, I will argue that the privileged argument can be treated as subject in Kelabit, and that we should be wary of using Western Austronesian as evidence against the universality of the subject function.

- ❖ **Roadmap:**
 - Grammatical Functions in LFG
 - The Subject Debate in WAn
 - Grammatical Functions in Kelabit
 - Privileged argument as subject (not topic)
 - Non-privileged actor as object (not subject)
 - Implications and Conclusion

- ❖ The data in the paper is taken from fieldwork in Bario (2013-2017) and comprises grammaticality judgements and elicited examples, as well as naturalistic texts.
- ❖ Important terminology:
 - **actor** = agent-like argument
 - **undergoer** = patient-like argument
 - privileged = argument cross-referenced on verbal morphology (=subject)
 - *non-privileged* = actor or undergoer that isn’t cross-referenced (=object/core)

2. Grammatical Functions in LFG

- ❖ LFG assumes a universally available set of grammatical functions (Dalrymple 2001):

SUBJ > OBJ > OBJ_θ > COMP, XCOMP > OBL_θ > ADJ, XADJ

- ❖ Grammatical Functions are assumed to be primitives of the theory:¹

“Abstract grammatical functions like subject and object are not defined in terms of phrase structure configurations or of semantic or argument structure relations, but are **primitives of the theory** [...] LFG assumes that functional syntactic concepts like subject and object are **relevant for the analysis of every language**: that the same notions of abstract grammatical functions are at play in the structure of all languages, no matter how dissimilar they seem on the surface [...] The abstract syntactic structure of languages obeys **universal principles of functional organization** and draws from a universally available set of possibilities, but may vary from language to language. In this sense, the functional structure of language is said to be “**universal**.” (Dalrymple 2001)

“The principle of universality states that internal structures [i.e. grammatical functions] are **largely invariant** across languages” (Bresnan et al. 2016)

- ❖ Grammatical functions are typically identified via morphosyntactic properties that distinguish them from other arguments (Keenan 1976, Falk 2006).² The most common cross-linguistic properties of subjects are summarised in Table 1:

Table 1. Typical Subject Properties Cross-Linguistically (following Falk 2006: 6)

Coding	Behaviour
Unmarked Case	Imperative Addressee
Agreement	Reflexive Binding
	Switch Reference Systems
	Co-ordination
	Controlled Argument (PRO)
	Raising
	Extraction
	Obligatory Element
	Wide Scope
	Discourse Topic

¹ Following Lexical Mapping Theory, grammatical functions are decomposed into more basic features – but still treated as primitive in the sense that they are not defined in term of semantic role or c-structure position.

² Not all properties are assumed to be relevant for all languages (e.g. switch reference) and syntactic phenomena make different cut off points in different languages. However, properties are assumed to cluster.

- ❖ There are languages with MORPHOLOGICAL ERGATIVITY and QUIRKY CASE in which not all subjects (i.e. arguments that behave alike) have the same morphological properties:

(1) *Morphological Ergativity in Warlpiri*

a. **S controls reference in subordinate clause**

Ngarrka_i (S) ka wirnpirli-mi, [karli jarnti-rninja-**karra**]
 man PRES whistle-NONPAST boomerang trim-INF-SUBJCOMP
 ‘The man (S) is whistling while trimming the boomerang’

b. **A controls reference in subordinate clause**

Ngarrka-ngku_i (A) ka purlapa (U) yunpa-rni,
 man-ERG PRES corroboree sing-NONPAST

[karli jarnti-rninja-**karra**-rlu]
 boomerang trim-INF-SUBJCOMP-ERG

‘The man (A) is singing a corroboree (U) while trimming the boomerang’

c. **U controls reference in subordinate clause**

Kala-nkulu-jana [ririnyki-wapa-nja-**kurra**] pu-ngu
 USITATIVE-2PLSUBJ-3PLOBJ scurry-move-INF-OBJCOMP hit-PAST

‘You (A) killed them (U) while they were out foraging’ (Simpson 1991: 310-315)

(2) *Quirky Case in Icelandic*

Hun var syfjuð og (henni) leiddest bókin
 3SG.NOM was sleepy and 3SG.DAT bore book.DEF.NOM
 ‘She was sleepy and found the book boring’ (Sigurðsson 2004: 142)

- ❖ Hence, LFG assumes that that grammatical functions should be identified on the basis of syntactic rather encoding properties (Dalrymple 2001, Dalrymple and Nikolaeva 2011).
- ❖ However, symmetrical voice (and syntactically ergative) languages present a different challenge – behavioural properties are split between the privileged argument (i.e. actor in AV, undergoer in UV etc.) and the actor semantic role (cf. Schachter 1976).
- ❖ In the next section, I will illustrate that this holds for a wide range of Western Austronesian languages, before examining the Kelabit case in more detail.

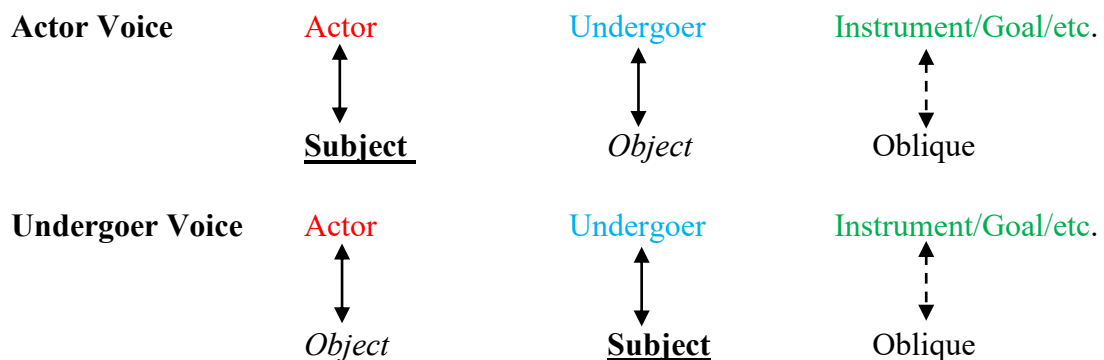
3. The Subject Debate

- ❖ In order to understand why Western Austronesian languages appear to pose a problem for universal concepts of subjecthood, it is necessary to understand their typologically unusual systems of verbal morphology.

❖ Consider the data from Tagalog:

- (3) *Tagalog*
- a. **Actor Voice (AV)**
 b<um>ili ang lalaki ng isda sa tindahan
 <AV>buy NOM man GEN fish OBL store
 ‘The man bought fish at the store’
- b. **Undergoer Voice (UV)**
 b<in>ili-Ø ng lalaki ang isda sa tindahan
 <PFV>buy-UV GEN man NOM fish OBL store
 ‘The man bought the fish at the store’
- c. **Locative Voice (LV)**
 b<in>ilih-an ng lalaki ng isda ang tindahan
 <PFV>buy-LV GEN man GEN fish NOM store
 ‘The man bought fish at the store’
- d. **Instrumental Voice (IV)**
 ip<in>am-bili ng lalaki ng isda ang pera
 <PFV>IV-buy GEN man GEN fish NOM money
 ‘The man bought fish with the money’
- e. **Benefactive Voice (BV)**
 i-b<in>ili ng lalaki ng isda ang bata
 BV<PFV>buy GEN man GEN fish NOM child
 ‘The man bought fish for the child’ (Arka 2002)

- ❖ The sentences in (3) encode the same notionally transitive event but differ in the **verbal morphology** on the verb, which in turn indicates an alternation in terms of which argument is privileged (underlined) and takes *ang*-marking.
- ❖ The clauses do not appear to differ in their **syntactic transitivity**, as all contain (at least) two core arguments, and the verb is equally morphologically marked.
- ❖ For this reason, the alternations are often analysed as SYMMETRICAL VOICE – or an alternation in the mapping of arguments to functions without detransitivisation or demotion (see Himmelmann 2005, Kroeger 1993b, Foley 2008).



- ❖ This is the analysis I favour but it is controversial for a number of reasons:
 - Firstly, it is cross-linguistically rare to find symmetrical voice systems and, in particular, actors with the grammatical function of object (see Riesberg 2014).
 - Secondly, and perhaps more importantly, the set of properties which are cross-linguistically associated with subjects (see Table 1) are split between the privileged argument and the actor semantic role in UV (Schachter 1976).
- ❖ This means that identifying grammatical functions is an important precursor to understanding verbal morphology!
- ❖ The ‘split’ can be seen in the patterns of relativisation and reflexive binding – only privileged arguments can be relativized on but actors control reflexive binding, regardless of whether they are privileged or not:

(4) *Tagalog Relative Clauses*

a. **Actor Voice**

Matalino ang lalaki[=ng bumasa ng diyaryo]
 Intelligent NOM man=LNK AV.read GEN newspaper
 ‘The man who read a newspaper is intelligent’

b. *Interesante ng diyaryo[=ng bumasa ang lalaki]

Interesting GEN newspaper=LNK AV.read NOM man
 For: ‘The newspaper that the man read is interesting’

c. **Undergoer Voice**

Interesante ang diyaryo[=ng binasa ng lalaki]
 Interesting NOM newspaper=LNK UV.read GEN man
 ‘The newspaper that the man read is interesting’

d. *Matalino ng lalaki[=ng binasa ang diyaryo]

Intelligent GEN man=LNK UV-read NOM newspaper
 For: ‘The man who read the newspaper is intelligent’ (Schachter 1976: 500)

(5) *Tagalog Reflexive Binding*

a. **Actor Voice** (actor = *ang*-marked)

Nag-aalala ang lolo sa kaniyang sarili
 AV-worry NOM grandfather DAT his self
 ‘Grandfather worries about himself’

b. **Undergoer Voice** (actor ≠ *ang*-marked)

Inaalala ng lolo ang kaniyang sarili
 UV.worry GEN grandfather NOM his self
 ‘Grandfather worries about himself’ (Manning 1996: 13)

- ❖ In fact, the same split is also found in many Western Austronesian languages with verbal morphology that looks like symmetrical voice (see also Riesberg 2014 on Balinese, Manning & Sag 1998 on Toba Batak):

(6) *Indonesian Relative Clauses*

a. **Actor Voice**

Hasan [yang membeli ikan]
Hasan REL AV.buy fish
'It was Hasan who bought fish'

b. *Ikan [yang mem-beli Hasan]
fish REL AV-buy Hasan
For: 'It was fish that Hasan bought'

c. **Undergoer Voice**

Ikan [yang di-beli Hasan]
fish REL UV-buy Hasan
'It was fish that Hasan bought'

d. *Hasan [yang di-beli ikan]
Hasan REL UV-buy fish
For: 'it was Hasan who bought fish' (adapted from Musgrave 2002: 59)

(7) *Indonesian Reflexives*

a. **Actor Voice**

saya menyerah-kan diri saya ke polisi.
1SG AV.surrender-APPL self 1SG to police
'I surrendered myself to the police.'

b. **Undergoer Voice (pro=V)**

diri saya saya serah-kan ke polisi.
self 1SG 1SG UV.surrender-APPL to police
'I surrendered myself to the police.'

c. **Undergoer Voice (di-V-nya)**

diri-nya di-serah-kan=nya ke polisi.
self-3SG UV-surrender-APPL=3SG to police
'He/she surrendered himself to the police.' (Arka & Manning 1998)

❖ A similar split is also found in syntactically ergative languages like Inuit (Manning 1996):

(8) *Inuit Relative Clauses*

a. Nanuq [Piita-p tuqu-ta-a]
polar.bear Peter-ERG kill-TR.PART.3SG
'A polar bear (U) that Peter killed (A).'

b. *angut [aallaat tigu-sima-sa-a]
man gun take-PERF.REL.TR.3SG
'The man (A) who took the gun (U).' (Manning 1996)

- (9) *Inuit Reflexive Binding*
- a. Ataata-ni Juuna-p tatig(i-v)aa
 father-REFL.POSS Juuna-ERG trust-IND.TR.3SG.3SG
 ‘Juuna trusts his father’
- b. *Anaana-mi Piita nagligi-jaja
 mother- REFL.POSS.ERG Piita love-3SG.3SG
 ‘His mother loves Pitta’ (Manning 1996)

- ❖ Consequently, Falk (2006: 16) concludes that the split is systematic and considers that typical subject properties are actually of two types:

Table 2. Type 1 and Type 2 Subject properties

Type 1 Subject Properties	Type 2 Subject Properties
Agent argument in active voice	Shared argument in co-ordinated clauses
Most likely covert argument	Raising
The addressee of an imperative	Extraction
Anaphoric prominence	Obligatory element
Switch reference systems	“External” structural position
Controlled argument (PRO) for some languages	Controlled argument (PRO) for some languages
Discourse topic	Definiteness/wide scope

- ❖ The split has led to three main approaches to grammatical functions in Tagalog:
1. **Austronesian languages do not have subjects (cf. Schachter 1976)**
 - Subjects must have all of the properties in Table 1
 - The privileged argument is a topic
 2. **The subject is the actor (cf. Aldridge 2004)**
 - Only Type 1 properties are important in identifying subjects
 - The privileged argument is a topic or an absolutive (pivot?)
 3. **The subject is the privileged argument (cf. Manning 1996, Manning & Sag 1998, Kroeger 1993a)**
 - Only Type 2 properties are important in identifying subjects
 - Type 1 properties are handled at argument structure
- ❖ If WAn languages really do not have subjects this would be problematic for theories of syntax that assume grammatical functions as universal primitives (e.g. LFG, Relational Grammar, etc.)
- ❖ However, I will argue that (3) not only works for Tagalog, but also for Kelabit which has a number of structural differences but appears to share characteristic WAn verbal morphology.

4. Grammatical Functions in Kelabit

- ❖ Kelabit is a WAn language, spoken in the fourth and fifth divisions of Sarawak, Malaysia. It belongs to the Apad Uat subgroup (Kroeger 1998).
- ❖ Like Tagalog, it also has the WAn system of verbal morphology that could be analysed as symmetrical voice:

(10) *Kelabit*

a. **Actor Voice**

La'ih sineh ne-nekul *nuba'* *nedih* ngen seduk
 man DEM PFV-AV.spoon.up rice 3SG.POSS with spoon
 'That man spooned up his rice with a spoon'

b. **Undergoer Voice**

Sikul *lai'h sineh* nuba' nedih ngen seduk
 UV.PFV.spoon.up man DEM rice 3SG.POSS with spoon
 'That man ate his rice with a spoon'

c. **Instrumental Voice**

Seduk pe-nekul *la'ih sineh* *nuba'* *nedih*
 spoon IV-spoon up man DEM rice 3SG.POSS
 'That man used a spoon to spoon up his rice' (Hemmings 2015: 394)

- ❖ Moreover, we find the same “split” in the patterns of relativisation and reflexive binding:³

(11) *Kelabit Relativisation*

a. **Actor Voice**

Seni'er kuh la'ih [suk ___ ne-nekul *nuba'* ngen seduk]
 UV.PFV.see 1SG.GEN man REL PFV-AV.spoon rice with spoon
 'I saw the man who spooned up rice with a spoon'

b. *Seni'er kuh *nuba'* [suk nekul ___ la'ih sineh]

UV.PFV.see 1SG.GEN rice REL AV.spoon man DEM
 For: 'I saw the rice that the man spooned up'

c. **Undergoer Voice**

Seni'er kuh nuba' [suk ___ sikul *la'ih sineh* ngen seduk]
 UV.PFV.see 1SG.GEN rice REL UV.PFV.spoon man DEM with spoon
 'I saw the rice that the man spooned up with a spoon'

d. *Seni'er kuh *la'ih* [suk sikul ___ nuba']

UV.PFV.see 1SG.GEN man REL UV.PFV.spoon rice
 For: 'I saw the man who spooned up rice' (Hemmings 2015: 394-395)

³ Though note that these body reflexive constructions may differ from true reflexive constructions and reflexive meanings are more commonly expressed via reflexive verb forms.

(12) *Kelabit Reflexive Binding*

a. **Actor Voice**

Uih ne-mada' burur kudih ngedeh
1SG.NOM PFV-AV.show body 1SG.POSS to.3PL
'I surrendered myself to them.'

a'. Nemada' burur kudih uih ngedeh
PFV-AV.show body 1SG.POSS 1SG.NOM to.3PL
'I surrendered myself to them.'

b. *Burur kudih ne-mada' uih ngedeh
body 1SG.POSS PFV-AV.show 1SG.NOM to.3PL
For: 'I surrendered myself to them.'

c. **Undergoer Voice**

Binada' kuh burur kudih ngedeh
UV.PFV.show 1SG.GEN body 1SG.POSS to.3PL
'I surrendered myself to them.'

d. *Binada' burur kudih uih ngedeh
UV.PFV.show body 1SG.POSS 1SG to.3PL
For: 'I surrendered myself to them.'

d'. *Uih binada' burur kudih ngedeh
1SG UV.PFV.show body 1SG.POSS to.3PL
For: 'I surrendered myself to them.'

- ❖ However, there are also many differences between Tagalog and Kelabit:
 - Kelabit has no definiteness restriction against undergoers in AV (which is also more discourse frequent).
 - The voice-system is reduced to a three-way distinction
 - We find SVO orders as well as verb-initial orders
 - There is no case-marking of nominal arguments.
- ❖ Hence, WAn verbal morphology ("symmetrical voice") is independent of other morphosyntactic features in WAn languages but seems to correlate with split-subject properties.
- ❖ In the following sections, I will argue that the Manning/Kroeger approach to grammatical functions can also apply for Kelabit:
 - The privileged argument has many Type 2 subject properties
 - The privileged argument is not necessarily a topic
 - The non-privileged actor behaves more like an object than a subject

4.1 Privileged Argument as Subject

- ❖ A number of tests support the identification of the privileged argument as subject:

Table 3. Subject Tests in Kelabit

	Kelabit
Particles	✓
Relativisation/Clefting	✓
Pre-verbal position	✓
Fronted questions	✓
Raising	✓
Control	✓
Shared argument in co-ordination	? not limited to subjects

1. Particles

- ❖ Kelabit has pre-nominal particles (*teh* and *neh*) that can occur before the privileged argument, but not other arguments in the clause:⁴

(13) Kelabit Particles

a. Actor Voice

Kuman **teh** Peter *bua' kaber* *nedih* keneh
 AV.eat PT Peter pineapple 3SG.POSS he.said
 'Peter does eat his pineapple he said'

a'. Kuman *bua' kaber* *nedih* **t=ieh**
 AV.eat pineapple 3SG.POSS PT=3SG
 'He eats his pineapple.'

b. *Kuman Peter **teh** *bua' kaber* *nedih* keneh
 AV.eat Peter PT pineapple 3SG.POSS he.said
 For: 'Peter does eat his pineapple he said'

c. Undergoer Voice

Kenen *Peter* **teh** *bua' kaber* *nedih* keneh
 UV.eat Peter PT pineapple 3SG.POSS he.said
 'Peter will eat his pineapple he said'

d. *Kenen **teh** *Peter* *bua' kaber* *nedih* keneh
 UV.eat PT Peter pineapple 3SG.POSS he.said
 For: 'Peter will eat his pineapple he said'

⁴ These are optional and the exact discourse function remains to be further explored. They may have developed historically from the so-called 'case' markers in Philippine languages (Himmelman 2005). Synchronically, they may form a single class with other discourse particles (e.g. K: *tebey*, *men*, *teden* etc.) that can occur in 'second' position following an initial constituent. They can also be used in pseudocleft structures:

- (i) Peter **teh** kuman *bua' kaber*
 Peter PT AV.eat pineapple
 'Peter is [the one] who eats pineapple.'

2. Relativisation/Clefting

- ❖ The AUSTRONESIAN EXTRACTION RESTRICTION seen for relativization also applies in clefting:

(14) *Kelabit Clefting*

a. **Actor Voice**

Dih ieh dih suk la' kuman ih.
DEM 3SG DEM REL DESID AV.eat PT
'It's him (pointing) who wants to eat.'

b. **Undergoer Voice**

Bua' kaber suk kenen Peter ih.
pineapple REL UV.IRR.eat Peter PT
'It's pineapple that Peter will eat.' (elicitation, BAR19082014CH_03)

3. Pre-verbal Position

- ❖ The privileged argument can appear pre-verbally and post-verbally, whereas non-privileged core arguments cannot be pre-verbal:

(15) *Kelabit External Position*

a. **Actor Voice**

La'ih sineh nenekul nuba' ngen tekul ngimalem
man DEM AV.PFV.spoon rice with spoon yesterday
'The man spooned up rice with a spoon yesterday'

- b. *nuba' nenekul la'ih sineh ngen tekul ngimalem
rice AV.PFV.spoon man DEM with spoon yesterday
For: 'The man spooned up rice with a spoon yesterday'

c. **Undergoer Voice**

Nuba' sikul la'ih sineh ngen tekul ngimalem
rice UV.PFV.spoon man DEM with spoon yesterday
'The man spooned up the rice with a spoon yesterday.'

- d. *la'ih sineh sikul nuba' ngen tekul ngimalem
man DEM UV.PFV.spoon rice with spoon yesterday
For: 'The man spooned up the rice with a spoon yesterday.'

4. Fronted Questions

- ❖ As in many Austronesian languages, only the privileged argument can be questioned pre-verbally in Kelabit, either with a cleft structure or wh-word clause-initially:

(16) *Kelabit Questions: Cleft Structure*

a. **Actor Voice**

Lih suk kuman *bua'* *kaber*?
who REL AV.eat fruit pineapple
'Who is it that eats pineapple'

b. **Enun* suk kuman Peter?

What REL AV.eat Peter
For: 'what does Peter eat?'

b. **Undergoer Voice**

Enun suk kenen *Peter* ih?
what REL UV.IRR.eat Peter PT
'What is it that will Peter eat?'

(17) *Kelabit Questions: wh-fronting*

a. **Actor Voice**

[Lih] kuman *bua'* *kaber*?
who AV.eat fruit pineapple
'Who eats pineapple' (elicitation, BAR19082014CH_03)

b. **Undergoer Voice**

[Enun] seni'er *muh*?
what UV.IRR.see 2SG.GEN
'What did you see?' (pear story, BAR31072014CH_06)

5. *Raising*

- ❖ Only the privileged argument can be raised from an embedded clause.
- ❖ The position of the adverb *tu'uh-tu'uh* 'truly' and the fact that the raised argument can function as the privileged argument of a main UV clause show that this is a raising construction as opposed to verb that takes a clausal argument:

(18) *Kelabit Raising*

a. **Actor Voice**

Uih ngelinuh ieh **tu'uh-tu'uh** [___ nekuman *nuba'* ngimalem]
1SG AV.think 3SG real-REDUP AV.PFV.eat rice yesterday
'I thought him truly to have eaten his rice yesterday'

b. Ieh leninuh kuh **tu'uh-tu'uh** [___ nekuman *nuba'* dih]
3SG UV.PFV.think 1SG real-REDUP AV.PFV.eat rice DEM
'I truly thought him to have eaten the rice'

c. *Uih ngelinuh *nuba'* **tu'uh-tu'uh** [nekuman ___ ieh ngimalem]
1SG AV.PFV.think rice real-REDUP AV.PFV.eat 3SG yesterday
FOR: 'I thought the rice truly to have been eaten by him yesterday'

d. **Undergoer Voice**

Uih ngelinuh nuba' **tu'uh-tu'uh** [___ kinan *neh* ngimalem]
 1SG AV.PFV.think rice real-REDUP UV.PFV.eat 3SG yesterday
 'I thought the rice truly to have been eaten by him yesterday'

e. Nuba' leninuh kuh **tu'uh-tu'uh** [___ kinan *la'ih sineh*]
 rice UV.PFV.think 1SG real-REDUP UV.PFV.eat man DEM
 'I truly thought rice to have been eaten by him'

f. *Uih ngelinuh *ieh* **tu'uh-tu'uh** [kinan ___ nuba' ngimalem]
 1SG AV.think 3SG real-REDUP UV.PFV.eat rice yesterday
 FOR: 'I thought him truly to have eaten his rice yesterday'

6. Control

❖ Only the privileged argument can correspond to the gap in a controlled clause:

(19) *Kelabit Control*

a. **Embedded Clause in Actor Voice for Controlled Actor**

Mesurung ieh **tu'uh-tu'uh** neh kamih [___ ngabi *nuba' nedih*]
 Persuade 3SG real-REDUP PT 1PL.EXCL AV.finish rice 3SG.POSS
 'We really persuaded her to finish her rice.'

b. **Embedded Clause in Undergoer Voice for Controlled Undergoer**

Mesurung ieh **tu'uh-tu'uh** neh kamih [___ siren *dudur*]
 persuade 3SG real-REDUP PT 1PL.EXCL UV.see doctor
 'We really persuaded her to be seen by the doctor.'

❖ The same rules apply for any non-finite complement clause:

(20) *Kelabit Control*

a. **Actor Voice**

La'ih sineh nemerey dedtur sidih **ngimalem** [___ nibu *padey*]
 man DEM AV.PFV.give woman DEM yesterday AV.plant rice
 'The man allowed the woman yesterday to plant rice'

b. *la'ih sineh nemerey *padey* **ngimalem** [nibu ___ dedtur sidih]
 man DEM AV.PFV.give rice yesterday AV.plant woman DEM
 For: 'The man allowed the woman yesterday to plant rice'

c. **Undergoer Voice**

La'ih sineh nemerey padey **ngimalem** [___ sebuwen
 man DEM AV.PFV.give rice yesterday UV.IRR.plant

dedtur sidih
 women DEM

'The man gave some rice yesterday for the woman to plant'

- d. *la'ih sineh nemerey *dedtur sidih* **ngimalem** [sebuwen ____
 man DEM AV.PFV.give woman DEM yesterday UV.IRR.plant

padey]

rice

For: 'The man gave some rice yesterday for the woman to plant'

7. Co-ordination

- ❖ The final subject test is co-ordination reduction.
- ❖ It appears that, in principle, co-referring arguments can be dropped, regardless of whether the two co-ordinating clauses have the same voice, or the two arguments have the same status as privileged/non-privileged.
- ❖ However, there are some restrictions. For example, it is not possible for two UV clauses to be co-ordinated with a shared actor that is elided:

(21) *Kelabit Co-ordination*

a. **Undergoer Voice**

*[Bua' kaber kinan ____] **mey** [ebpa' telang nirup *la'ih sineh*]
 pineapple UV.PFV.eat and water plain UV.PFV.drink man DEM

For: 'That man ate the pineapple and drank the water'

- ❖ When two AV clauses are co-ordinated, it is also ungrammatical to have a gapped undergoer in the second clause (though ok if the gap is in the first clause, cf. the English translation):

(22) *Kelabit Co-ordination*

a. **Actor Voice**

*[la'ih sineh nengulit bua' kaber dih] **mey**
 man DEM AV.PFV.skin pineapple DEM

[dedtur sidih nengupa ____]
 woman DEM AV.PFV.halve

For: 'the man peeled the pineapple and the woman halved [it]'

- b. [La'ih sineh nengulit ____] **mey** [dedtur sidih nengupa
 Man DEM AV.PFV.skin and woman DEM AV.PFV.halve

bua' kaber dih]

pineapple DEM

'The man peeled and the woman halved the pineapple.'

- ❖ Hence, there may be another asymmetry here between privileged and non-privileged arguments that supports the identification of the privileged argument as subject, but the patterns are quite complex (given that zero arguments are generally possible in the language) and need to be better understood.

8. Binding

- ❖ The main challenge against treating the privileged argument as subject is the binding data.
- ❖ However, this would be expected if – following Manning (1996) and Manning and Sag (1998) – we assume that Type 1 properties actually identify the highest semantic role at the level of argument structure with core status (“a-subject”)
- ❖ Indeed, studies of binding within LFG have revealed that there is variation cross-linguistically in terms of the nature of the binding domain and constraints on potential antecedents (Bresnan et al. 2016, Dalrymple 2001).
- ❖ There are, for example, other languages for which it is necessary to refer to the thematic hierarchy in order to correctly state the binding conditions, e.g. Albanian (Sells 1988); Norwegian (Hellan 1988, Dalrymple & Zaenan 1991), Balinese (Arka & Wechsler 1996)
- ❖ Moreover, the patterns of binding in Kelabit may be more complicated than they seemed above when we consider quantificational objects e.g. ‘every child’ (cf. Legate 2012)
- ❖ In AV, there is a binding asymmetry whereby a preverbal actor can bind into an undergoer, but cannot be bound by the post-verbal undergoer.
- ❖ However, in UV there is no such binding asymmetry and bound readings are (apparently) possible in both instances (nb. judgements need to be further corroborated):

(23) *Kelabit Binding*

a. **Actor Voice**

Kenep-kenep tesineh nu’uh anak nedih
 every mother AV.look.after child 3SG.POSS
 ‘Every mother_i looks after her_i child’

- b. Tesineh nedih nu’uh kenep-kenep anak
 Mother 3SG.POSS AV.look.after every child
 ‘Her_{i/k} mother looks after every child_i’
 ➤ i.e. binding asymmetry!

c. **Undergoer Voice**

Kenep-kenep anak terenuwen tesineh nedih
 Every child UV.look.after mother 3SG.POSS
 ‘Every child_i is looked after by her_i mother’

- d. Anak nedih terenuwen kenep-kenep tesineh
 child 3SG.POSS UV.look.after every mother
 ‘Her_i child is looked after by every mother_i’
 ➤ No binding asymmetry!

- ❖ In both cases, a bound reading is preferred when the 3PL.POSS pronoun is used (*dedih*) instead of the 3SG.POSS pronoun (*nedih*). This appears to remove the binding asymmetry.
- ❖ The binding patterns are also (seemingly) affected by whether the privileged argument appears pre-verbally or post-verbally. Post-verbally, different patterns may be found:

- (24) *Kelabit Binding*
 a. Nu'uh *kenep-kenep* *anak* *tesineh nedih*
 AV.look.after every child mother 3SG.POSS
 'Her_i mother looks after every child_i.'

- ❖ Hence, binding in Kelabit isn't (necessarily) exclusively controlled by the actor and, therefore, doesn't (necessarily) present a strong counter-argument to treating the privileged argument as subject.

4.2 Privileged Argument as Topic

- ❖ The main alternative to treating the privileged argument as subject is to treat it as a topic.⁵
- ❖ However, the privileged argument is not really a topic in either the discourse or information structure sense.

1. Discourse Topic

- ❖ Cooreman, Fox & Givón (1984) and Givón (1983) suggest that a discourse topic has high topic continuity in the sense that it has low referential distance (=is easy to identify in context) and high topical persistence (=remains important).
- ❖ Though this may be true of the AV actor, it does not appear to be true of the UV undergoer.
- ❖ In Kelabit UV clauses, it is the actor that has high topic continuity:

- (25) *Kelabit Discourse Topic*
- Nalap *neh* *pupu'*
 UV.PFV.fetch 3SG.GEN hitting.implement
 'She 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'
- Nulin *neh* *kuyad* *sineh.*
 UV.PFV.throw 3SG.GEN monkey DEM
 'And threw it at the monkey.' (text, PDA10112013CH_01)

- ❖ In this stretch of narrative discourse, the actor is topical throughout and expressed with a pronominal form. In contrast, the undergoers are variously non-specific, indefinite and/or not important in the discourse.

⁵ Another alternative is to treat the privileged argument as an absolutive in an ergative system but this presupposes that the AV construction is an antipassive. As shown in section 6, AV is a transitive construction in Kelabit.

- ❖ Quantitatively, actors have higher measures for referential distance and topical persistence than undergoers in UV (see Hemmings 2017):

Table 4. RD and TP Measurements for Undergoer Voice Clauses

	Actor		Undergoer		Total No.
	High (1-3)	Low (>3)	High (1-3)	Low (>3)	
Referential Distance	49 92%	5 8%	36 68%	17 32%	53
Topical Persistence	41 77%	12 23%	23 43%	30 57%	53

- ❖ Hence, the privileged argument is not (necessarily) the discourse topic.

2. Information Structure Topic

- ❖ A second definition of topic is the information structure notion, defined in terms of identifiability and aboutness (Lambrecht 1994).
- ❖ The privileged argument can be the topic in this sense. However, firstly this would be expected since subjects very often encode topics (Dalrymple & Nikolaeva 2011). Secondly, this is not necessarily always the case...
- ❖ Indeed, the UV actor can be the information structure topic, as shown by the fact that it is possible for a UV clause to follow an actor as an overt hanging topic:

(26) *Kelabit Hanging Topics*

a. **Actor Topics in UV**

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

- ❖ Moreover, both the AV actor and UV undergoer can have narrow focus in initial position – a role that is often assumed to be mutually exclusive with topic (Butt & King 1996):

(27) *Kelabit Information Focus*

a. **Undergoer Voice**

Q. Enun seni'er muh?
 what UV.PFV.see 2SG
 'What did you see?'

A. [Edteh wayang]_{focus} seni'er kuh na'ah...
 one video UV.PFV.see 1SG before
 'I just saw a video...' (pear story, BAR31072014CH_06)

b. **Actor Voice**

Q. Iih suk kuman bua' kab^{er} sineh?
 who REL AV.eat fruit pineapple DEM
 'Who is eating that pineapple?'

- A. [Peter]_{focus} suk kuman *bua' kaber sineh*
 Peter REL AV.eat fruit pineapple DEM
 'Peter is eating that pineapple.' (elicitation, BAR19082014CH_03)

(28) *Kelabit Corrective Focus*

Context: did Andy hit John yesterday?

Na'am Andy nemupu' John ngimalem...
 NEG Andy PFV.AV.hit John yesterday
 'Andy didn't hit John yesterday...'

a. **Contrasted Actor**

[Paul]_{focus} teh suk nemupu' *ieh*
 Paul PT REL PFV.AV.hit 3SG.NOM
 'It was Paul who hit him (John)'

b. **Contrasted Undergoer**

[Paul]_{focus} teh suk pinupu' *neh*
 Paul PT REL UV.PFV.hit 3SG.GEN
 'It was Paul that he (Andy) hit'

- ❖ However, you can also have an initial VP with predicate focus and/or express narrow focus on the object in-situ (i.e. post-verbally):

(29) *Kelabit Predicate Focus*

Na'am **Andy** nemupu' *John* ngimalem...
 NEG Andy AV.PFV.hit John yesterday
 'Andy didn't hit John yesterday...'

a. **Predicate Focus**

[nemepag *Paul*]_{focus} **t=ieh**
 AV.PFV.slap Paul PT=3SG
 'He slapped Paul'

b. [kuman *bua' ih* tupu]_{focus} **t=ideh**

AV.eat fruit PT only PT=3PL.NOM
 'They are just eating fruit' (pear story, BAR31072014CH_06)

(30) *Kelabit Narrow Focus*

a. **Actor Voice**

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

b. nekuman [*bua' kaber*]_{focus} [**t=ieh**]_{topic} ngimalem?

AV.PFV.eat fruit pineapple PT=1SG.NOM yesterday
 'What did Peter eat yesterday?'

- c. **Undergoer Voice**
 Kenen *ih* **neh bua' kaber sineh?**
 UV.IRR.eat who PT fruit pineapple DEM
 'Who will eat the pineapple?'
- d. Kenen [*Peter*]_{focus} [**neh bua' kaber sineh**]_{topic}
 UV.IRR.eat Peter PT fruit pineapple DEM
 'Peter will eat the pineapple'
- e. [**Dih**]_{topic} kenen [*la'ih dih*]_{focus}.
 it UV.IRR.eat man DEM
 'It will be eaten by the man.' (elicitation, BAR19082014CH_03)

(31) *Kelabit Corrective Focus*
 Na'am **Andy** nemupu' *John* ngimalem...
 NEG Andy AV.PFV.hit John yesterday
 'Andy didn't hit John yesterday...'

- a. **Corrected Undergoer**
 nemupu' [*Paul*]_{focus} [**t=ieh**]_{topic}
 AV.PFV.hit Paul PT=3SG.NOM
 'He hit Paul'
- b. **Corrected Actor**
 pinupu' [*Paul*]_{focus} [**t=ieh**]_{topic}
 UV.PFV.hit Paul PT=3SG.NOM
 'Paul hit him.'

- ❖ Consequently, the privileged argument appears to be underspecified for its information structure role. Instead, information structure correlates in interesting ways with voice and word order.
- ❖ Thus, there are good arguments for treating the privileged argument as a subject and against treating it as a topic.

4.3 Non-privileged Actor as Object

- ❖ Finally, there are also arguments for treating the UV actor as an object (or non-subject core argument) rather than a subject (which argues against the 'actor as subject' approach).
- ❖ The same arguments also support identifying the AV undergoer as a core argument, and hence argue against an ergative analysis in which AV is an intransitive antipassive construction.

Table 5. Object Tests in Kelabit

	Kelabit
NP rather than PP	✓
Post-verbal position	✓
No subject properties	✓
No adjunct-fronting	✓

1. NP rather than PP

- ❖ Obliques and adjuncts are typically prepositional phrases, whilst non-privileged actors and undergoers are NPs:

(32) Kelabit Obliques

a. Actor Voice

La'ih sineh nemerey nuba' [ngen anak nedih]_{PP}
 man DEM PFV.AV.give rice to child 3SG.POSS
 'The man gave rice to his child'

b. Undergoer Voice

Birey la'ih sineh nuba' [ngen anak nedih]_{PP}
 PFV.UV.give man DEM rice to child 3SG.POSS
 'The man gave rice to his child'

2. Post-verbal Position (and no subject properties)

- ❖ Not only do non-privileged actors and undergoers have none of the subject properties that privileged arguments have (see section 4.1), they also have a fixed position following the verb.⁶
- ❖ Adjuncts of time cannot intervene between the verb and non-privileged argument, but they can intervene before obliques.⁷

(33) Kelabit Post-verbal Position

a. Actor Voice

La'ih sineh ne-kuman (*ngimalem) bua' kaber
 man DEM PFV-AV.eat (*yesterday) fruit pineapple
 For: 'I ate pineapple yesterday'

b. Undergoer Voice

Kinan (*ngimalem) la'ih sineh bua' kaber sineh
 UV.PFV.eat (yesterday) man DEM fruit pineapple DEM
 For: 'The man ate that pineapple yesterday.'

⁶ Note in AV, the actor can intervene between the verb and the undergoer but this is the only exception.

⁷ For Kelabit, the position of *ngimalem* 'yesterday' appears to be more flexible with verb-initial AV clauses.

- c. **AV Oblique**
La'ih sineh nenekul *nuba'* (ngimalem) ngen tekul
 man DEM AV.PFV.spoon rice yesterday with spoon
 'The man spooned up rice yesterday with a spoon'
- d. **UV Oblique**
Nuba' sikul *la'ih sineh* (ngimalem) ngen tekul
 rice UV.PFV.spoon man DEM yesterday with spoon
 'The man spooned up the rice yesterday with a spoon'

❖ In addition, it is odd (either ungrammatical or very marked) to order obliques/adjuncts before non-privileged arguments when the privileged argument is pre-verbal.⁸

(34) *Kelabit Word Order*

- a. **Actor Voice**
La'ih sineh nemerey *nuba'* ngen anak nedih
 man DEM AV.PFV.give rice to child 3SG.POSS
 'The man gave rice to his child'
- b. *La'ih sineh nemerey ngen anak nedih *nuba'*
 man DEM AV.PFV.give to child 3SG.POSS rice
 For: 'The man gave rice to his child'
- c. *la'ih sineh nenekul ngen tekul *nuba'*
 man DEM AV.PFV.spoon with spoon rice
 For: 'The man spooned up rice with a spoon'
- d. **Undergoer Voice**
Nuba' birey *la'ih sineh* ngen anak nedih
 rice UV.PFV.give man DEM to child 3SG.POSS
 'The man gave RICE to his child'
- e. *Nuba' birey ngen anak nedih *la'ih sineh*
 rice UV.PFV.give to child 3SG.POSS man DEM
 For: 'The man gave RICE to his child'
- f. *Nuba' sikul ngen tekul *la'ih sineh*
 rice UV.PFV.spoon with spoon man DEM
 For: 'The man spooned up rice with a spoon'

❖ Hence, there is a preference for verb+non-privileged argument to form a constituent.

⁸ It may be that (34b) is ungrammatical because of a tendency to order indefinite before definite.

3. No Adjunct-Fronting

- ❖ In Kelabit, adjuncts/obliques can be fronted before a pre-verbal subject (though the construction is information-structurally marked). However, non-privileged actors and undergoers cannot:

(35) *Kelabit Adjunct Fronting*

a. **Actor Voice**

*[*nuba*'], la'ih sineh nenekul ngen tekul
rice man DEM AV.PFV.spoon with spoon
For: 'Rice, the man spooned up with a spoon'

b. **AV Oblique**

[Ngen tekul], la'ih sineh nenekul *nuba*'
with spoon man DEM AV.PFV.spoon rice
'With a spoon, the man spooned up rice'

c. **Undergoer Voice**

*[*la'ih sineh*], nuba' sikul ngen tekul
man DEM rice UV.PFV.spoon with spoon
For: 'By the man, rice was spooned up with a spoon'

d. **UV Oblique**

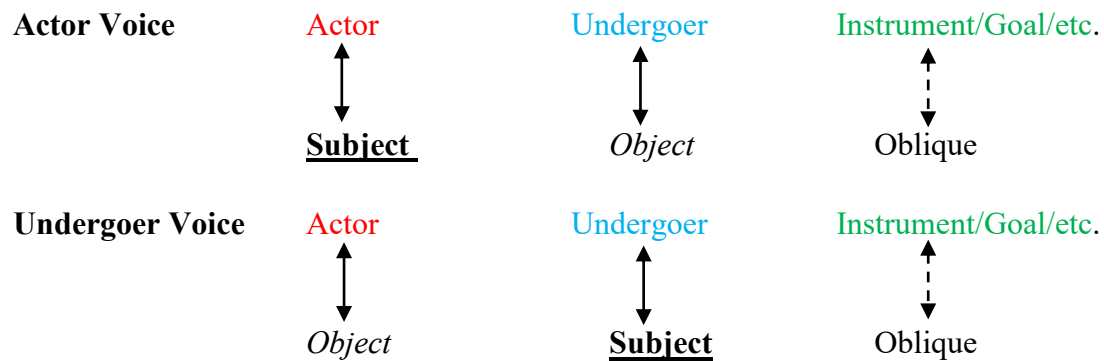
[Ngen tekul], nuba'sikul *la'ih sineh*
with spoon rice UV.PFV.spoon man DEM
'With a spoon, the rice was spooned up by the man'

- ❖ The patterns above suggest that neither the non-privileged actor in UV, nor the non-privileged undergoer in AV, is a typical oblique and hence supports the conclusion that they both have a core grammatical function.
- ❖ Since they do not have any of the typical subject properties discussed in section 4.1, this suggests that they are best analysed as objects.
- ❖ Hence, it argues against both an ergative analysis (in which AV is intransitive) and an actor as subject approach.
- ❖ Nb. Though the mapping of actors to objects is rare, there have been similar proposals for typologically diverse languages, such as Norwegian existential clauses (Lødrup 2000) and inverse constructions in the Mapudungan language of Chile (Arnold 1997).

5. Implications and Conclusion

- ❖ In this paper, I have presented three main arguments for treating the privileged argument as subject in Kelabit
 - It has a range of cross-linguistic 'subject properties' that distinguish it from other arguments in the clause
 - It does not appear to have the cross-linguistic properties expected of discourse or information structure topics

- The non-privileged actor behaves like non-privileged undergoers (and unlike privileged arguments or obliques) which suggests that they are better treated as objects than subjects.
- ❖ Consequently, the best approach to grammatical functions in Kelabit is the Manning & Sag (1998) approach with the following mapping from arguments to functions (exactly as schematised in section 3):



- ❖ This has several important implications for Austronesian and, more generally, for the study of grammatical functions.
- ❖ It supports the idea that verbal morphology encodes an alternation in the mapping of arguments to functions and results in multiple transitive clauses - hence, it suggests that the best analysis of the data is SYMMETRICAL VOICE.
- ❖ Hence, it demonstrates the importance of identifying grammatical functions in Western Austronesian languages as a necessary precursor to understanding the true nature of the verbal morphology.
- ❖ Secondly, it suggests that, on closer inspection, Western Austronesian languages and the split in subject properties may not in fact refute the notion of subject being a universal grammatical function.⁹
- ❖ Rather, they imply the need to refine the definition (and criteria for identification) on the basis of a more typologically varied set of languages.
- ❖ Finally, it suggests that actors can be mapped to objects which has implications for theoretical approaches to linking (e.g. Bresnan & Kanerva 1989, Ackerman & Moore 2001, Dowty 1991)
- ❖ Importantly, it suggests that default linking of actors to non-object functions, as is assumed in traditional versions of Lexical Mapping Theory (Bresnan et al. 2016, Bresnan & Kanerva 1989) and Dowty's (1991) Argument Selection Principle among other accounts, does not necessarily apply for all languages and cannot be assumed to be universal
- ❖ Hence, this work makes an important contribution to our understanding of grammatical functions and Austronesian voice systems and highlights the importance of developing theoretical models that can account for the typological facts.

⁹ There may be independent reasons for rejecting this if one believes that constructs are always language specific and cannot really be compared cross-linguistically or if one believes that grammatical functions are construction-specific (see e.g. Bickel 2010). However, the important point is that the WAN split itself doesn't necessitate giving up the principle of universality adopted in LFG.

References

- Ackerman, Farrell & John Moore. 2001. *Proto-Properties and Grammatical Encoding: A Correspondence Theory of Argument Selection*. Stanford, CA: CSLI Publications.
- Aldridge, Edith. 2004. *Ergativity and word order in Austronesian languages*. PhD Dissertation, Cornell University.
- Arka, I Wayan & Stephen Wechsler. 1996. "Argument structure and linear order in Balinese binding." Workshop on Lexical-Functional Grammar, Grenoble, France.
- Arka, I. Wayan. 2002. Voice systems in the Austronesian languages of Nusantara: Typology, symmetry and Undergoer orientation. Presented at the 10th National Symposium of the Indonesia Linguistics Society, Bali, Indonesia.
- Arka, I. Wayan & Christopher D. Manning. 1998. *Voice and Grammatical Relations in Indonesian: A New Perspective*. Stanford, CA: CSLI Publications.
- Arnold, Jennifer. 1997. The Inverse System in Mapudungan and other Languages. *Revista de Linguística Teórica y Aplicada* 34.
- Bickel, Balthasar. 2010. *Grammatical relations typology*: Universitätsbibliothek Johann Christian Senckenberg.
- Bresnan, Joan, Ash Asudeh, Ida Toivonen & Stephen Wechsler. 2016. *Lexical-Functional Syntax*. Oxford: Wiley Blackwell.
- Bresnan, Joan & Jonni M. Kanerva. 1989. Locative Inversion in Chicheŵa: A Case Study of Factorization in Grammar. *Linguistic Inquiry* 20(1), 1-50.
- Butt, Miriam & Tracey Holloway King. 1996. "Structural Topic and Focus without Movement." Proceedings of the LFG96 Conference.
- Cooreman, Ann, Barbara A. Fox & Talmy Givón. 1984. The Discourse Definition of Ergativity. *Studies in Language* 8(1), 1-34.
- Dalrymple, Mary. 2001. *Syntax and Semantics: Lexical Functional Grammar*. San Diego, CA: Elsevier Science.
- Dalrymple, Mary & Irina Nikolaeva. 2011. *Objects and Information Structure*. Cambridge: Cambridge University Press.
- Dalrymple, Mary & Annie Zaenan. 1991. "Modeling anaphoric superiority." Proceedings of the International Conference on Current Issues in Computational Linguistics, Penang, Malaysia.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language* 67(3), 547.
- Falk, Y. N. 2006. *Subjects and Universal Grammar: An Explanatory Theory*. Cambridge: Cambridge University Press.
- Foley, William A. 2008. The place of Philippine languages in a typology of voice systems. In Peter K. Austin & Simon Musgrave (eds.), *Voice and grammatical relations in Austronesian languages*, 22-44. Stanford: CSLI Publications.
- Givón, Talmy (ed.), 1983. *Topic continuity in discourse: A quantitative cross-language study*, *Typological Studies in Language* 3. Amsterdam: John Benjamins.
- Hellan, Lars. 1988. *Anaphora in Norwegian and the Theory of Grammar*. Dordrecht: Foris.
- Hemmings, Charlotte. 2015. Kelabit Voice: Philippine-Type, Indonesian-Type or Something a Bit Different? *Transactions of the Philological Society* 113(3), 383-405.
- Himmelman, Nikolaus P. 2005. The Austronesian Languages of Asia and Madagascar: Typological Characteristics. In Alexander Adelaar & Nikolaus P. Himmelman (eds.), *The Austronesian Languages of Asia and Madagascar*, 110-181. London: Routledge.
- Keenan, Edward L. 1976. Towards a Universal Definition of 'Subject'. In Charles N. Li (ed.), *Subject and Topic*, 303-333. Academic.
- Kroeger, Paul R. 1993a. Another Look at Subjecthood in Tagalog. *Philippine Journal of Linguistics* 24(2), 1-15.

- Kroeger, Paul R. 1993b. *Phrase Structure and Grammatical Relations in Tagalog*. Stanford, CA: CSLI Publications.
- Lambrecht, Knud. 1994. *Information Structure and Sentence Form: Topic, Focus, and the Mental Representations of Discourse Referents*. Cambridge: Cambridge University Press.
- Legate, Julie Anne. 2012. Subjects in Acehnese and the nature of the passive. *Language* 88(3), 495-525.
- Li, Charles N. 1976. *Subject and Topic*. New York: Academic Press.
- Lødrup, Helge. 2000. Underspecification in Lexical Mapping Theory: The Case of Norwegian Existentials and Resultatives. In Miriam Butt & Tracey Holloway King (eds.), *Argument Realization*, 171-188. Stanford, CA: CSLI Publications.
- Manning, Christopher D. 1996. *Ergativity: Argument Structure and Grammatical Relations*. Stanford, CA: CSLI Publications.
- Manning, Christopher D. & Ivan A. Sag. 1998. Argument structure, valence, and binding. *Nordic Journal of Linguistics* 21(2), 107-144.
- Musgrave, Simon. 2002. *Non-subject arguments in Indonesian*. PhD Dissertation, Melbourne University.
- Riesberg, Sonja. 2014. *Symmetrical voice and linking in western Austronesian languages, Pacific Linguistics*,. Berlin: De Gruyter Mouton.
- Schachter, Paul. 1976. The Subject in Philippine Languages: Topic, Actor, Actor-Topic, or None of the Above? In Charles N. Li (ed.), *Subject and Topic*, 491-518. New York: Academic Press.
- Sells, Peter. 1988. "Thematic and grammatical hierarchies: Albanian reflexivization." Proceedings of the Seventh West Coast Conference on Formal Linguistics.
- Sigurðsson, Halldór Ármann. 2004. Icelandic Non-Nominative Subjects: Facts and Implications. In Peri Bhaskararao & Karumuri Venkata Subbarao (eds.), *Non-Nominative Subjects*, 137-159. Amsterdam: John Benjamins.
- Simpson, Jane. 1991. *Warlpiri Morphosyntax: A Lexicalist Approach*. Dordrecht, The Netherlands: Kluwer Academic Publishers Group.