Restrictions on Wh-in-Situ in Kavalan and Amis

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1. Introduction

There are two competing approaches that aim to explain whether an interrogative subject can stay in-situ in Austronesian languages. According to Richards (1998) and Sabel (2003), a wh-phrase cannot occupy the subject position in Tagalog and Malagasy. They suggest that the so-called subjects in Austronesian languages are topics, which must be definite or specific and are thus incompatible with the semantics of a wh-phrase. Law (2006), however, claims that as long as a wh-subject can be formally marked in the same way as its non-interrogative counterpart, it can stay in-situ.

Presenting the syntactic restrictions on the wh-in-situ constructions in Kavalan and Amis, two Austronesian languages in Taiwan, the present paper argues that no single approach is able to accommodate the empirical facts in both languages. The two languages exhibit distinct patterns of grammatical wh-in-situ sentences. All types of interrogative phrases in Amis, regardless of their case or grammatical function, can stay in-situ to form a constituent question. By contrast, a Kavalan constituent question is ungrammatical if it contains an in-situ interrogative phrase that receives absolute case and functions as a subject. However, *mayni=ay* 'which=REL' is an exception to this constraint. The noun phrase that it modifies can stay in-situ regardless of its case or grammatical function. It will be argued that while Amis conforms to Law's (2006) generalization, the wh-in-situ pattern in Kavalan can be explained by the semantic/pragmatic approach.

The two approaches to wh-in-situ in Austronesian languages will be reviewed in Section 2. The examples and grammatical properties of wh-in-situ constructions in Kavalan and Amis will be presented in Section 3 and Section 4 respectively. The two sections will also discuss the implications of the Kavalan and Amis wh-in-situ patterns for the two approaches. Section 5 concludes the study.

2. Wh-in-situ in Austronesian languages
2.1. Subject as topic

According to Cole, et al. (2003), Richards (1998), and Sabel (2003), a wh-phrase cannot appear in the structural subject position in Javanese, Tagalog, and Malagasy. This constraint is illustrated by the contrast between (1a) and (1b) in the following pair of sentences from Tagalog.[1]

(1) Tagalog (Richards 1998: 266)
   a. B<um>ili   ang   lalaki   <u>ng   ano</u>   sa   tindahan?
       <AV>buy   ANG   man   OBL   what   DAT   store
       'What did the man buy at the store?'

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[1] Glossing conventions are as follows: ABS – Absolutive; ASP – Aspect; AV – Agent Voice; CAU – Causative; CN – Common noun; COMP – Complementizer; DAT – Dative; DET – Determiner; DM – Discourse marker; ERG – Ergative; EXIST – Existential; FAC – Factual; FIL – Filler; FOC – Focus; GEN – Genitive; HUM – Human; LA – Locative applicative; LNK – Linker; NCM – Non-common noun marker; NHUM – Non-human; OBL – Oblique; PN – Proper name; POSS – Possessive; PV – Patient Voice; REL – Relativizer; SG – Singular.

  b. *B<in>ili   ng   lalaki <u>ang   ano</u>   sa   tindahan?
     <ASP>buy.PV OBL   man   ANG   what DAT   store
     'What did the man buy at the store?'

In (1a), which is an agent voice sentence, *ano* 'what' is in the object position marked by *ng* and the sentence is grammatical. However, (1b), which is a patient voice sentence with *ano* 'what' as the subject marked by *ang*, is ungrammatical.

    Cole, et al. (2003), Richards (1998), and Sabel (2003) all suggest that the ban on in-situ interrogative subjects is due to the semantic or pragmatic status of the subject position. On their account, the so-called subjects in Austronesian languages are topics and they must be definite or specific. For example, in the following patient voice sentence from Tagalog, *kalabaw* 'watter buffalo', which is the subject or the topic, must be interpreted as a specific entity, whereas the non-subject argument can be either specific or non-specific.

(2) Tagalog (Richards 1998: 265)
    B<in>ili   ng   lalaki   <u>ang   kalabaw</u>.
    <ASP>buy.PV OBL   man   ANG   water.buffalo
    'A/the man bought the/a certain/*a water buffalo.'

    As the use of a wh-phrase in a real question inherently indicates the speaker's lack of knowledge of a referent, it is difficult to interpret it as specific or definite without a special context. Therefore, it is concluded that the wh-in-situ restriction in Austronesian languages results from the incompatibility between the semantics/pragmatics of a wh-phrase and the subject position, which is always associated with topic features.

2.2. Formal marking of subject

    Law (2006) investigates the distribution of in-situ interrogative phrases in Malagasy, Tagalog, and Tsou, and argues that the ban on in-situ interrogative phrases in the subject position does not result from the definiteness/specificity requirement on the subject. He claims that as long as an interrogative phrase in the subject position can be formally marked in the same way as its non-interrogative counterpart, it can stay in-situ. If its formal marking fails to conform to the requirement on how a subject DP should be marked, it is forbidden from staying in-situ.

    According to Law (2006), the subject in the sentence-final argument position in a Malagasy sentence cannot be a bare N, but must be headed by an overt D: the determiner *ny* or a demonstrative, pronouns, or proper names with the prefix *ra* or *i*.

(3) Malagasy (Law 2006: 169)
    Nividy   (ny) trondro <u>*(ny)   vehivavy</u>.
    bought.AV DET fish   DET   woman
    'The woman bought (the) fish.'

Paul's (2009) study on Malagasy determiners suggests that the determiner *ny* in the subject position is not associated with definiteness or familiarity. This indicates that the obligatory presence of *ny* in the subject position is a formal requirement, not a discourse requirement.

    Contrary to Richards's (1998) and Sabel's (2003) data and claim, Law (2006) shows that if an interrogative phrase in the subject position can be headed by the overt D, *ny*, it can stay in-situ in the sentence-final subject position. This is illustrated below.

(4) Malagasy (Law 2006: 177)
    a. Hitan-dRabe <u>ny   sarin'-iza</u>?
       see.PV-PN   DET   picture-who
       'Who did Rabe see pictures of?'
    b. Hitan-dRabe <u>ny   inona</u>?
       see.PV-PN   DET   what
       'What did Rabe see?'

However, the interrogative phrase *iza* 'who' can never occur in-situ when it serves as the subject, whether it takes the determiner *ny* or not. This is illustrated in (5) below.

(5) Malagasy (Law 2006)
    *Nividy   trondro   <u>(ny) iza</u>?
    bought.AV   fish   DET who
    'Who bought fish?'

Law (2006) attributes the ungrammaticality of (5) to *iza*'s inherent inability to take an overt determiner. As shown in (6a) below, when a non-human interrogative phrase occurs in the preverbal position before the focus marker *no*, it can optionally take *ny*. The interrogative phrase *iza* 'who' is different in that it can never be preceded by *ny*, as illustrated by (6b). As *iza* 'who' is unable to take an overt D, it can never fulfill the requirement on the formal marking of a subject. Therefore, it can never appear in-situ in the subject position at the end of a sentence (5).

(6) Malagasy (Law 2006: 179)
    a.   <u>(Ny)   inona</u>   no hitan-dRabe?
           DET   what   FOC saw.PV-PN
           'What did Rabe see?'
    b.   <u>(*Ny)   iza</u>   no   nahita   ny   zaza?
           DET   who   FOC   see.AV   DET   child
           'Who saw the child?'

3. Wh-in-situ in Kavalan

Kavalan interrogative phrases cannot appear in the absolutive subject position, except for *mayni=ay* 'which=REL'. In what follows, we will argue that Law's (2006) generalization on the formal marking of interrogative phrases cannot be extended to Kavalan. Instead, the Kavalan wh-in-situ pattern is compatible with the semantic/pragmatic approach to Austronesian wh-in-situ.

(7) Kavalan
    a.   *Q<m>an   <u>ya tiana</u>   tu   'may-ku?
           <AV>eat   ABS who   OBL   rice-1SG.GEN
           'Who eats my rice?'
    b.   *Q<m>aRat <u>ya niana</u>   tu zapan-su?
           <AV>bite   ABS what   OBL leg-2SG.GEN
           'What bites your leg?'
    c.   *QaRat-an   na   wasu   'nay   <u>ya zanitiana   saku</u>?
           bite-PV   ERG dog   that   ABS whose   cat
           'Whose cat does the dog bite?'
    d.   *T<m>ayta <u>ya kin-tani</u>   sunis   ti-buya-an?
           <AV>see   ABS HUM-how.many   child   NCM-PN-OBL
           'How many children see Buya?'
    e.   Pukun-an   ni utay   <u>ya mayni=ay</u>   wasu?
           hit-PV   ERG PN   ABS which=REL   dog
           'Which dog does Utay hit?'

3.1. The form and function of the absolutive DP in Kavalan

The explanation based on the formal marking of the subject cannot account for the wh-in-situ pattern in Kavalan, where the absolutive DP does not need to be headed by an overt D in order to be licensed in that position. As shown in (8), the absolutive DP in Kavalan can optionally take the case marker *ya*.

(8) Kavalan
    M-uRin (ya) sunis   ('nay).
    AV-cry ABS child   that
    'The/That child is crying.'

The sentence in (8) demonstrates that the absolutive argument can be a bare NP without an overt D. The case marker is optional and so is the demonstrative. Kavalan is thus distinct from Malagasy in terms of the formal requirement on the subject. The formal requirement that the subject be accompanied by a phonologically overt element does not license Kavalan subject DPs.

    The absolutive DP does not need to have an overt N either, as illustrated by the following sentence with a headless relative clause as the subject.

(9) Kavalan
    Ti-utay (ya) [m-ala=ay   tu   kelisiw-ku].
    NCM-PN ABS AV-take=REL   OBL   money-1SG.GEN
    'The one that takes my money is Utay.'

In other words, neither an overt D nor a pronounced N licenses an absolutive phrase in Kavalan. Law's (2006) account thus predicts that there will be no requirement on the formal marking of in-situ absolutive wh-phrases in Kavalan and that an absolutive wh-phrase should be able to occur in-situ, contrary to fact.

    Nevertheless, there is still a formal constraint on what type of phrase can occur in the absolutive position in Kavalan. The head of the absolutive phrase must contain inherent phi- or [D]-features, whether it is pronounced or not. Overt nouns, proper nouns, unpronounced nouns, and pronouns can all occupy the absolutive subject position in Kavalan. A complement clause in Kavalan, however, cannot be promoted to the absolutive subject position in a patient voice sentence, in contrast to Amis, which allows a complement clause to occupy the absolutive position as long as it is preceded by the absolutive case marker *ku*, which will be discussed in Section 4.

(10) Kavalan
     Kasianem-an-ku   tu/*ya   [qa-lizaq-an   ni   utai   tu
     remember-PV-1SG.ERG   COMP/ABS   QA-like-NMZ   GEN   PN   OBL
     tazungan   'nay].
     girl   that
     'I remember that Utai likes that girl.'

    In addition to the formal requirement of phi-features, there are also semantic and discourse constraints on the absolutive phrase in Kavalan. According to Liao's (2002, 2004) study on the transitivity of different Kavalan sentence types in discourse, definiteness plays a primary role in distinguishing between a *tu*-marked oblique DP in an agent voice sentence and an absolutive DP in a patient voice sentence. While a *tu*-marked oblique DP is interpreted as an indefinite theme, an absolutive DP denotes a definite theme.

(11) Oblique DP as an indefinite theme in Kavalan (Liao 2004: 259)
     Ringu   s<m>angi   tu   namat   a   kubalan.
     unable   <AV>make   OBL   weapon   ABS   Kavalan
     'The Kavalan people were not able to make weapons.'

(12) Absolutive DP as a definite theme in Kavalan (Liao 2004: 260)
     Taktak-an-na   ya   taqan   na   lepaw   na   bayblan.
     cut.down-PV-3ERG   ABS   pillar   GEN   house   GEN   old.woman
     'They cut down the pillars of the old woman's house.'

    Huang and Tanangkingsing (2011) have further argued that the discourse distinction between salient/topical and non-salient/non-topical arguments in Kavalan has been grammaticalized as the formal distinction between core and oblique arguments in the morphosyntactic case system. Their

discourse study on Kavalan reveals that the absolutive DP in a patient voice sentence is more topical than the *tu*-marked oblique DP in an agent voice sentence with regard to their participant tracking behaviors in discourse. A DP shows strong topic persistence when the referent it denotes is mentioned in subsequent clauses. By contrast, if a DP is not the topic of discourse, it is less likely for the referent it denotes to appear again in subsequent clauses. In Kavalan, whenever a referent is denoted by the absolutive DP in a patient voice sentence, it is always mentioned again in the subsequent clauses. In other words, the absolutive DP exhibits strong topic persistence.

Consider the following excerpt from a narrative. The absolutive subject of the first clause is *paRin* 'tree'. It is mentioned again in subsequent clauses. The second clause is an existential construction and it introduces into the discourse an entity that is part of the tree. The third clause denotes the state of this tree. Finally, the last clause also describes what happened to the tree. In other words, the entire excerpt is concerned with the absolutive subject in the first clause, which exhibits strong topic persistence.

(13) Kavalan

Tayta-an-na	ya paRin	nani.	Yau	a	usiq	a	izau	e,
see-PV-3ERG	ABS tree	DM	EXIST	ABS	one	LNK	this	FIL

tangan	na	paRin	a	yau.	M-diyuq	sayza.
hole	GEN	tree	LNK	that	AV-rotten	probably

Qatiw-an-na	m-zaqis	na	sunis	a	yau	a	paRin	a	yau	nani.
go-PV-3ERG	AV-climb	ERG	child	LNK	that	ABS	tree	LNK	that	DM

'The child saw the tree. There was a tree hole. (The tree) was probably rotten. The child went climb up the tree.' (KavNr-frog_Haciang, NTU Corpus)

By contrast, the oblique DP in an agent voice sentence tends to introduce a non-salient referent that will not be talked about again in the rest of the discourse.

To summarize, not only does a Kavalan absolutive phrase carry inherent phi-features, but it also needs to be both definite and topical. I thus propose that a Kavalan absolutive DP moves to Spec, TP to check the uninterpretable Φ-features on T and then it moves to Spec, TopP to check the uninterpretable [op] (topic) feature on Top. In the derivation of a Kavalan sentence, an interpretable scope feature, [op], is assigned to a [+definite] nominal argument that serves as the topic, i.e., the absolutive DP. However, an interrogative phrase inherently encodes a request for new information, i.e., focus, and thus cannot be assigned the [op] feature. If it moves to the specifier of TopP, the uninterpretable [op] feature on Top cannot be checked. The derivation thus fails to obey the interface condition of Full Interpretation. It is because the uninterpretable [op] feature on Top cannot be checked that an interrogative sentence with an absolutive wh-phrase is ungrammatical.

3.2. Kavalan *mayni=ay* 'which=REL' and D-linking

The distribution of *mayni=ay* 'which=REL' is a counterexample to the analysis delineated above. As shown in (7e), unlike the other wh-phrases, 'which'-phrase in Kavalan can stay in-situ in the absolutive position. We will argue that the distribution of *mayni=ay* 'which=REL' does not constitute a counterexample, but instead corroborates our claim that the restriction on wh-in-situ in Kavalan results from where an absolutive argument has to move in the structural representation.

The different patterns exhibited by *mayni=ay* 'which=REL' on the one hand and *tiana* 'who' and *niana* 'what' on the other hand suggest that the distinction between discourse-linked (D-linked) and non-discourse-linked (non-D-linked) wh-phrases proposed by Pesetsky (1987) must be taken into account. On Pesetsky's (1987) analysis, the D-linking property of a wh-phrase is contingent on its discourse status. The answer to a question of a D-linked wh-phrase like *which* is "supposed to be drawn from a set of individuals previously introduced into the discourse, or … part of the 'common ground' shared by speaker and hearer" (Pesetsky 2000: 16).

While the syntactic differences between D-linked and non-D-linked wh-phrases are acknowledged, the discourse motivation for the distinction is debatable. There have been studies that attempt to attribute the so-called D-linking phenomenon to formal aspects of grammar like Syntax (Hirose 2003; Shields 2008; Tsai 1997) or Semantics (Rett 2006; Rullmann and Beck 1998). In what

follows, we suggest that the distinction between D-linking and non-D-linking in Kavalan is a syntactic phenomenon.

One noticeable difference between a D-linked wh-phrase and a non-D-linked wh-phrase in Kavalan is that the former takes an additional marker =*ay* and forms a modification structure with its following noun. The marker =*ay* functions to introduce diverse kinds of modifiers of a noun.

(14) Kavalan
a.	Raya=ay	wasu	b.	u-tulu=ay	wasu	c.	mwaza=ay wasu
	big=REL	dog		NHUM-three=REL dog			many=REL dog
	'big dog'			'three dogs'			'many dogs'
d.	zau=ay	wasu	e.	zaku=ay	wasu		
	this=REL	dog		1SG.POSS=REL	dog		
	'this dog'			'my dog'			

Demonstratives and possessors can occur in the post-nominal position, but the occurrence of the marker =*ay* is forbidden in this position.
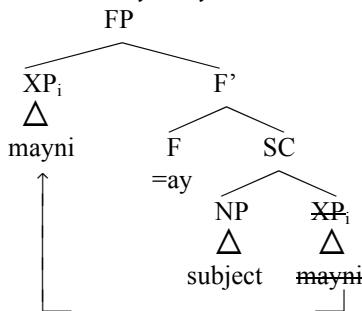
(15) Kavalan
a.	wasu	zau	b.	wasu	zaku
	dog	this		dog	1SG.POSS
	'this dog'			'my dog'	

According to den Dikken and Singhapreecha (2004) and Simpson (2001), a noun phrase where the noun and its modifiers are connected by a linker always involves predication. Moreover, the presence of the linker induces predicate inversion. On den Dikken and Singhapreecha's (2004) account, the noun and its modifier in this construction is base-generated as the subject and predicate of a small clause (SC) respectively. The linker heads its own functional projection, FP, and prompts the predicate to move to Spec, FP.

Due to the parallel functions between =*ay* and linkers connecting a noun and its modifier in other languages, I assume that =*ay* also heads its own functional projection, FP, and triggers DP-internal Predicate Inversion. This explains why modifiers of nouns must be followed by =*ay* in the pre-nominal position. Moreover, DP-internal Predicate Inversion derives a restrictive modifier or a quantifying phrase. A Kavalan *mayni* 'which' phrase thus has the structural representation in (16).

(16) Structure of *mayni*=*ay* 'which=REL'

As an interrogative, *mayni* 'which' introduces a free variable x into the derivation. Moreover, the domain of this free variable is restricted by the subject NP in the small clause. In Kavalan, it is this syntactic configuration of restrictive modification that contributes to the D-linking interpretation of an interrogative phrase.

'Whose'-questions and 'how many'-questions in Kavalan further corroborate the analysis that attributes Kavalan D-linking to DP-internal Predicate Inversion induced by =*ay*. As illustrated in (17a), *zanitiana* 'whose' is not allowed in the absolute subject position. However, its grammaticality improves if it occurs in the =*ay* construction, as shown in (17b).

(17) Kavalan

    a.   *Tayta-an   ni   imuy   <u>ya</u>   <u>zanitiana   sunis</u>?

        see-PV   ERG   PN   ABS   whose   child

        'Whose child does Imuy see?'

    b.   ?Tayta-an   ni   imuy   <u>ya</u>   <u>zanitiana=ay sunis</u>?

        see-PV   ERG   PN   ABS   whose=REL child

        'Whose child does Imuy see?'

By contrast, although *tani* 'how many' seems to be an interrogative modifier of a noun too, it cannot take the modification marker *=ay*. This is exemplified in (18), a pseudo-cleft question.

(18) Kavalan

    <u>Kin-tani(*=ay)</u>   <u>sunis</u>   ya p<m>ukun tu wasu?

    HUM-how.many=REL child   ABS <AV>hit   OBL dog

    'How many children hit dogs?'

This suggests that the structure of a noun phrase preceded by *tani* 'how many' differs from the structure of *mayni=ay* 'which=REL' in (16). It is not derived via DP-internal Predicate Inversion. An in-situ *tani* phrase in the subject position is ungrammatical regardless of the presence of *=ay*.

(19) Kavalan

    *QaRat-an   na wasu   <u>ya kin-tani(=ay)</u>   <u>sunis</u>?

    bite-PV   ERG dog   ABS HUM-how.many=REL child

    'How many children does the dog bite?'

The interrogative phrase headed by *mayni=ay* 'which=REL' is D-linked due to the restrictive modification structure where it occurs (16) and can thus be assigned an interpretable [op] feature during the derivation when it is marked absolutive. When it moves to Spec, TopP, the uninterpretable [D] and [op] features on Top can both be checked. The derivation can thus converge at LF without violating any interface conditions like Full Interpretation.

4. Wh-in-situ in Amis

The semantic/pragmatic approach cannot apply to Amis. Unlike Kavalan, Amis absolutive interrogative phrases can stay in-situ in pragmatically neutral contexts.

(20) Amis

    a.   C<m>ikay   <u>cima</u>?

        <AV>run   who.ABS

        'Who is running?'

    b.   Ma-alawisu   <u>ku nima   wawa</u>?

        PV-see 2SG.ERG ABS whose   child

        'Whose child do you see?'

    c.   Ma-efer <u>ku maan</u>?

        AV-fly   ABS what

        'What is flying?'

    d.   Ka-ulah-an isu   <u>ku icuwaay a   wacu</u>?

        KA-like-LA   2SG.ERG ABS which   LNK dog

        'Which dog do you like?'

    e.   Pa-ka'en-an ni ngaday <u>ku pina   a   wacu</u>?

        CAU-eat-LA ERG PN   ABS how.many   LNK dog

        'How many dogs does Ngaday feed?'

The following discussion will argue that the grammaticality of in-situ absolutive wh-phrases in Amis can be explained by the requirement on the formal marking of absolutive DPs, as proposed by Law (2006). It will be argued that this formal requirement arises from the EPP feature on T that must be

locally satisfied by a phrase with a phonologically realized head per Landau's (2007) conception of EPP.

4.1. Formal marking of the absolutive DP in Amis

When an Amis common noun occurs in the absolutive subject position, it must be preceded by an overt absolutive case marker.

(21) Amis

Ma-la'op	nu	wacu	*(ku)	wawa	/	*(ku)-ra	wawa.
PV-chase	ERG	dog	ABS	child	/	ABS-that	child

'The dog chased the child / that child.'

Personal proper names cannot be preceded by *ku*, but they must take the non-common noun marker *ci-*, as illustrated in (22).

(22) Amis

a.

Ma-la'op	nu	wacu	*(ci-)panay.
PV-chase	ERG	dog	NCM-PN

'The dog chased Panay.'

b.

Ma-la'op	nu	wacu	(*ku)	ci-panay.
PV-chase	ERG	dog	ABS	NCM-PN

'The dog chased Panay.'

Unlike Kavalan, a headless relative clause in Amis must be preceded by the absolutive case marker *ku* to function as the subject.

(23) Amis

Ci-utay	*(ku)	[mi-takaw-ay	tu	payci	aku].
NCM-PN	ABS	AV-steal-FAC	OBL	money	1SG.GEN

'The one that steals my money is Utay.'

Like Malagasy, the absolutive DP in an Amis sentence must be preceded by a phonologically overt element: *ku* for common nouns and *ci-* for personal proper names. Law's (2006) analysis predicts that an absolutive interrogative phrase can occur in-situ as long as it conforms to this formal requirement. This prediction is borne out as Amis absolutive interrogative phrases can take the absolutive case marker *ku* and occur in-situ. As for the interrogative word for personal proper names, the non-common noun marker *ci-* is an inherent and obligatory morphological component of this word, *cima* 'who'. In other words, the internal morphological structure of *cima* 'who' already fulfills the requirement that a personal proper name be preceded by the non-common noun marker. It is thus able to stay in-situ per Law's (2006) account.

4.2. Theoretical explanation: EPP as a PF condition

Despite its descriptive accuracy, Law's (2006) analysis does not provide a principled formal explanation. It does not explain the connection between the presence of a phonologically overt element before an interrogative phrase and the interrogative phrase's ability to stay in-situ. The following discussion will complement Law's (2006) analysis by arguing that the descriptive generalization of this analysis finds a natural explanation in Landau's (2007) EPP account.[2]

According to Landau (2007), EPP is a PF condition that must be satisfied by a phonologically visible element. Moreover, the phonologically overt element that can satisfy the EPP condition must be

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[2] I would like to thank Dr. Eric Potsdam for suggesting Landau's (2007) EPP account as a possible explanation for the formal requirement on the subject in Malagasy and Amis. Paul (2009) mentions the possibility of this analysis in passing but does not provide a detailed and thorough discussion.
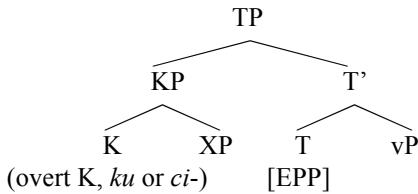
the head of the selected phrase. In the following configuration where H bears an EPP feature [P], the head of the selected phrase ZP in the specifier must have some phonetic material.

(24) [$_{HP}$ ZP [$_{H'}$ H$_{[P]}$ …]]

The EPP condition formulated by Landau (2007) offers a straightforward explanation for the distribution of bare nouns in Romance languages concerning the contrast between subject and object positions.

On Landau's (2007) account of EPP, Law's (2006) and Paul's (2009) observation that the subject in a Malagasy sentence must have an overt D can be viewed as a concomitant consequence of an EPP feature on T that selects for D. Likewise, the generalization that an Amis noun phrase occupying the absolutive position must be preceded by the absolutive case marker can be attributed to an EPP feature on T to be satisfied by an overt head K in Spec, TP at PF.

(25) EPP on T in Amis

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                      TP
            ┌──────────┴──────────┐
           KP                    T'
       ┌────┴────┐          ┌─────┴─────┐
       K         XP         T           vP
(overt K, ku or ci-)      [EPP]
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Amis non-human wh-phrases in the absolutive position can stay in-situ because they are able to fulfill this EPP requirement. They can be preceded by the absolutive case marker *ku*, the head K. *Cima* 'who' inherently takes the non-common noun classifier *ci-*. In both cases, K is phonologically visible and thus the EPP requirement can be satisfied.

The category of K in (25) might be D. The case marker *ku* in Amis serves the functions of D both syntactically and semantically. One of the functions of D is to turn an NP into an argument that can be manipulated in Syntax (Szabolcsi 1994). Case markers in Amis serves this function because all the NP arguments must be preceded by one of the case markers, *ku*, *nu*, or *tu*. In addition to NP arguments, they are also able to introduce a clausal argument (cf. Kavalan in (10)). Amis complement clauses can be nominal and are case-marked. If the matrix verb takes the agent voice marker, the nominal complement clause is case-marked as oblique, as shown in (26a). If the matrix verb takes the patient voice marker, the nominal complement clause is instead preceded by the absolutive case marker *ku*, as illustrated in (26b). The case markers that introduce clausal arguments are obligatory. They can turn a nominal clause into an argument to be manipulated in Syntax.

(26) Amis
   a. Mi-nanay   kaku   <u>tu</u>   [pi-padang ni aki tu safa].
      AV-hope   1SG.ABS   OBL PI-help   GEN PN   OBL younger.sibling
      'I hope that Aki helped (her) brother.' (I hope for Aki's helping of her brother.)
   b. Ma-araw   aku   <u>ku</u>   [pi-kalat   nu   wacu   ci-ofad-an].
      PV-see   1SG.ERG   ABS   PI-bite   GEN   dog   NCM-PN-OBL
      'I saw that the dog bit Ofad.' (I saw the dog's biting of Ofad.)

According to Chierchia and Turner (1988), Ns are predicative, whereas D functions to provide referentiality for Ns. This function of D can be observed in the contrast between a nominal predicate and a nominal argument in Amis in terms of their formal marking. While nominal arguments in Amis must take one of the case markers, nominal predicates can only be preceded by the optional classifier *u*.

(27) Amis
   [(<u>U</u>)fafahian]   [<u>ku</u> singsi   aku].
   CN   woman   ABS teacher   1SG.GEN
   'My teacher is a woman.'

5. Conclusion

In conclusion, there is no single approach that can accommodate the empirical facts of wh-in-situ in both Kavalan and Amis.

The distribution of in-situ wh-phrases in Kavalan supports Richards's (1998) and Sabel's (2003) analysis, which invokes the semantic/pragmatic status of the subject as an explanation. The absolutive subject in Kavalan is interpreted as a definite noun and exhibits strong topic persistence. These two properties are incompatible with a non-D-linked wh-phrase. As for the interrogative phrase headed by *mayni=ay* 'which=REL', it can stay in-situ in the subject position because of its D-linking status, which results from its syntactic structure of restrictive modification that involves DP-internal Predicate Inversion.

The Amis pattern conforms to Law's (2006) observation that interrogative phrases in Austronesian languages can stay in-situ as long as they can receive the same formal marking as their non-interrogative counterparts. It is suggested that this requirement on the formal marking of the subject can be explained by Landau's (2007) PF analysis of EPP.

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Proceedings of the 31st West Coast Conference on Formal Linguistics

edited by Robert E. Santana-LaBarge

Cascadilla Proceedings Project   Somerville, MA   2014