The Heterogeneity of VOS and Extraction in Austronesian Languages  
Edith Aldridge, Northwestern University  
Draft: 10/01/06

1. Introduction

Aldridge (2002a, 2002b, 2004a) argues that A’-movement processes in Austronesian languages do not all have the same structural properties and are not all constrained by a single mechanism. Specifically, certain characteristics are due to the morphosyntactic feature-checking on functional heads, which is part of the overall ergative syntax (or remnant ergative syntax) of these languages. Other characteristics result from processes of word order derivation in a given language.

In this paper, I build on this foundation and propose a more fine-grained typology of word order derivation and extraction possibilities in Austronesian languages. All of the languages I take up in this paper are subject to the absolutive restriction on A’-extraction, according to which movement of DPs from vP is correlated with morphosyntactic features on v. Extractability of non-DPs, however, is shown to correlate with word order generation. VOS languages whose basic word order is derived by fronting a clausal projection do not allow fronting of PPs and adjuncts, while languages which only front the verb or nuclear VP do allow fronting of non-DPs.

2. DP/Non-DP Asymmetry

I show in this section that wh-questions in which the wh-phrase is a DP and those in which the wh-phrase is of another category have different structural properties. In (1) we see that both DP and non-DP wh-words appear in clause-initial position in Tagalog. There is an obvious difference, however, between the two constructions. The DP wh-word in (1a) is followed by the absolutive case-marker ang, while the non-DP wh-word is not.

Tagalog

(1) a. Ano ang b-in-ili ni Maria?
    what Abs -Tr.Perf-buy ErgMaria
    “What did Maria buy?”

b. Saan b-in-ili ni Maria ang libro?
    where -Tr.Perf-buy Erg Maria Abs book
    “Where did Maria buy the book?”

Richards (1998), Geogopoulos (1991), Paul (2000, 2001), Massam (2003), Postsdam (2004), Pearson (2001, 2006), Aldridge (2002a, b; 2004a, b) have all argued that wh-questions formed on DPs in a number of Austronesian languages take the form of clefts. The DP functions as the matrix predicate, and the rest of the clause forms a headless relative in subject position.

Tagalog

(2) Ano [DP ang [CP OP [TP b-in-ili ni Maria TOP ]]]?
    what Abs -Tr.Perf-buy ErgMaria
    “What did Maria buy?”
Aldridge (2002a, b; 2004a, b) additionally proposes that A’-dependencies involving non-DPs are derived through \textit{wh}-movement.

There is abundant evidence that the two types of \textit{wh}-question have different structural properties. Evidence cited by Aldridge (2002a, b; 2004a; 2005b) includes placement of second position clitics. Pronominal clitics in Tagalog attach to the first prosodic word within CP. (4a) shows the clitic attaching to the verb, (4b) to a focused PP, and (4c) to a time adverb.}

Non-DP \textit{wh}-questions pattern with the PP and adverb focus constructions above. The clitic adjoins to the fronted \textit{wh}-word.

In a cleft, however, the clitic has to stay below the nominal predicate and absolutive marker which follows it. In (6) the 2\textsuperscript{nd} person ergative pronoun attaches to the verb.
(7) a. *Ano=mo ang g-in-a-gawa?
    what=2sErg Abs Red-Perf-do
    “What are you doing?”
b. *Ano ang=mo g-in-a-gawa?
    what Abs=2sErg Red-Perf-do

If (6) were mono-clausal, the clitic should be able to move as high as the *wh*-word, given the
textures below, where the *wh*-word has moved to [Spec, C].

(8) *[CP Ano=mo i [C’ ang [TP g-in-a-gawa ti ]]]?
    what=sErg Abs Red-Perf-do
    “What are you doing?”

Clearly, this mono-clausal structure does not explain the position of the clitic in (6). However, a
bi-clausal cleft analysis does. The *wh*-word is not contained in the CP where the clitic originates.
Therefore, the highest position available to the clitic in this clause is the verb ginagawa, as
shown in (9). The operator in [Spec, C] is phonetically null and so cannot host clitics.

(9) Ano i ang [ CP Opi [TP g-in-a-gawa=mo ti ]]
    what Abs Red-Perf-do=2sErg
    “What are you doing?”

In contrast, clitic placement in *wh*-questions formed on XPs other than DPs can be accounted for
by assuming a *wh*-movement analysis. The *wh*-phrase moves to [Spec, C], and the clitic moves
up to attach to the *wh*-phrase.

(10) *[CP Kailan=kai [TP p-um-unta ti sa Maynila ]]?
    when=2sAbs -Intr.Perf-go DatMaynila
    “When did you go to Maynila?”

The different structural properties of the two types of *wh*-question indicate that separate
derivations are involved in each case. I discuss non-CP *wh*-questions further in sections 4 and 5.
Sections 6 and 8 present the analysis of DP *wh*-questions.

3. VSO/VOS Asymmetry

Aldridge (2002a, b; 2004a) has also shown that there are significant structural correlations
between basic word order and *wh*-movement possibilities. Seediq is a VOS language, in which
the absolutive occurs in clause-final position.
Seediq=VOS

(11)a. Wada burig-un na Ape ka patis.
   Past buy-Tr Erg Ape Abs book
   “Ape bought the book.”
b. Wada=na s-tabu huling ka buuts rodux.
   Past=3s.Erg App-feed dog Abs bone chicken
   “She fed the chicken bones to a/the dog.”
c. Wada m-ari hulama ka Ape.
   Past Intr-buy treat Abs Ape
   “Ape bought a treat.”

Tagalog is a VSO language, in which there is no fixed position for the absolutive. Rather, this DP tends to appear in its base position: external arguments immediately following the verb; themes following the external argument; and goals following themes.

Tagalog=VSO

(12)a. B-um-ili ang babae ng isda kay Juan.
   -Intr.Perf-buy Abs woman Obl fish Dat Juan
   “The woman bought a fish from Juan.”
b. B-in-ili ng babae ang isda kay Juan.
   -Tr.Perf-buy Erg woman Abs fish Dat Juan
   “The woman bought the fish from Juan.”
c. B-in-ilh-an ng babae ng isda si Juan.
   -Tr.Perf-buy-App Erg woman Obl fish Abs Juan
   “The woman bought the fish from Juan.”

We have seen in the previous section that PPs and adjuncts can undergo A’-fronting in Tagalog. However, this is not generally possible in Seediq.

Seediq

(13) a. M-n-ari inu patis Ape?
   Intr-Perf-buy where book Ape
   “Where did Ape buy books?”
b. *Inu in m-n-ari ti patis Ape?
   where Intr-Perf-buy book Ape

The same VOS/VSO asymmetry can be seen in other Formosan languages. Paiwan is a VSO language, like Tagalog. The absolutive DP can, but need not, appear in clause-final position.

Southern Paiwan

(14)a. P-in-avai-an ni ama ta tsakit a kakedian.
   -Perf-give-Tr Erg father Obl knife Abs child
   “Father gave the child a knife.”
b. P-in-avai-an ni ama a kakedian ta tsakit.
   -Perf-give-Tr Erg father Abs child Obl knife
   “Father gave the child a knife.”
c. Sini-pavai a tsakit na kakedian tjay ama.
   App.Perf-give Abs knife Erg child Obl father
   “The child gave Father the knife.”

Bunun is another VSO language.

Bunun

(15)a. ‘is-anatmas tina’ ‘uvaz-a’ pandian.
   App-cook Erg.mother child-that soup
   “Mother cooks soup for that child.” (Zeitoun 2000a:80)
b. ma-ludah tina’a ‘uvaz-tia’.
   Intr-hit mother-that child-that
   “That mother hits that child.” (Zeitoun 2000a:66)

In contrast to this, Tsou has VOS word order. The absolutive always appears in clause-final position.

Tsou (Zeitoun 1992:5)

(16)a. i-si fii to emi to ino ‘o amo.
   Aux-3sErg give Obl wine Erg mother Abs father
   “Father was given some wine by mother.”
b. i-si mU’a to bUvnU to mamespiNi
   Aux-3sErg plant Obl flowers Erg woman
   si papai.
   Abs field
   “This field is where the woman planted some flowers.”

Now observe the placement of adjuncts. VSO Paiwan and Bunun allow fronting of locatives.

Southern Paiwan

(17)a. Inu na-suman tapau ti ama?
   where Intr.Perf.-build house Abs father
   “Where did the father build a house?”
b. A okama suman tapau i daruk.
   Abs father build house P mountain
   “The father builds a house in the mountains.”
c. I daruk suman tapau a okama.
   P mountain build house Abs father
   “In the mountains, the father builds a house.”

Bunun (Zeitoun 2000a:94)

(18) (‘I-’)isa ‘uvaz-a’ dau’ tatangis?
   Pres.where child Q cry
   “Where is the child crying?”

VOS Tsou, on the other hand does not. Locative wh-words must follow the verb.
(19)a. mi-ko oengiti nenu?
   Intr-2s.Abs sleep where
   “Where did you sleep?” (Huang et al. 1999:670)

b. te-ko uh nenu?
   Fut-2s go where
   “Where are you going?” (Zeitoun 2000b:124)

To summarize the discussion so far, we have seen that DP and non-DP wh-movement have different structural properties. We have also seen that VSO languages allow fronting of non-DPs to clause-initial position, while VOS languages do not. The next three sections present the analysis which accounts for these two asymmetries.

4. VSO Analysis for Tagalog

We have seen in section 3 that Tagalog is not a VOS language, i.e. the absolutive DP does not obligatorily move to a clause-final subject position. Accordingly, basic word order in Tagalog can be derived in a similar manner to Celtic and Semitic languages, by head movement of the verb to a position above its arguments (cf. Emonds 1980, Sproat 1985; Chung & McCloskey 1987; McCloskey 1990, 1991, 1996a, 1996b, 1997, 1998; Bobaljik & Carnie 1996, Noonan 1995; Roberts 2005; and others for Celtic; and Mohammad 1988, Kaplan 1991, Ouhalla 1994, Shlonsky 1997, Doron 2000, and others for Semitic). Aldridge (2004a) proposes that the Tagalog verb moves to an aspectual projection above vP. All other vP-internal material, however, remain in their base positions. There is no EPP feature on T or Asp, and verb-movement is triggered by morphological features on the verb.

Tagalog
(20) a. B-in-ili ng babae ang isda.
   -Tr.Perf-buy Erg woman Abs fish
   “The woman bought the fish.”

b. 
   \[
   \begin{array}{c}
   \text{TP} \\
   \text{T} \quad \text{AspP} \\
   \text{V+} \quad \text{vAsp} \quad \text{vP} \\
   \text{DP}_{[\text{Erg}]} \quad \text{v}^* \\
   \text{t}_{V+} \quad \text{VP} \\
   \text{t}_V \quad \text{DP}_{[\text{Abs}]}
   \end{array}
   \]
A question may arise at this point as to why it is Asp and not T which the verb targets. One indication is that the verb always follows negation. I mention the relative positions of verb and negation again in the discussion of Seediq in section 5.1.

Tagalog

   Neg -Tr.Perf-buy Ergwoman Abs fish
   “The woman did not buy the fish.”

   -Tr.Perf-buy Neg Ergwoman Abs fish
   “The woman did not buy the fish.”

Regarding the structural positions of arguments in the clause, it follows from the verb-movement analysis proposed above that the ergative and absolutive DPs remain in their base positions, with the result that the ergative DP c-commands the absolutive. Initial evidence for this is the fact that an ergative nominal can antecede an absolutive reflexive, as shown below.

Tagalog

(22) a. P-in-igil ng lalaki ang sarili=niya.
   -Tr.Perf-control Ergman Abs self=3s.Gen
   “The man controlled himself.”

b. *P-in-igil ng sarili=niya ang lalaki
   -Tr.Perf-control Ergself=3s.Gen Abs man

Ergative DPs can also bind variables in absolutive position.

Tagalog

(23) Mina-mahal ng bawat bata ang kani-kaniya-ng aso.
   Red.Tr-love Ergeach child Abs 3s.Dist-Lk dog
   “Each child loves his/her own dog.”

This analysis is also supported by weak crossover effects. In (24), the operator cannot bind the variable, which it A’-moves over\(^1\).

Tagalog

(24) a. *Sino ang[CP Op[TP yina-yapos ng nanay niya ti]].
    who Abs Red.Tr.Perf-hug Ergmother 3s.Gen
    “Who\(^{t_i}\) is his\(^{t_i}\) mother hugging?”

\(^1\) Wh-questions like (41) take the form of pseudo-clefts in Tagalog and many other Austronesian languages. I propose an analysis of this cleft structure in section 8.
In contrast, (25) does not exhibit weak crossover effects, since the operator originates in external argument position and does not move over the intended variable.

Tagalog

(25) a. Sino i ang [CP Opi [TP t yuma-yapos sa anak niya i]].
   who Abs Red.Intr-hug Dat child 3s.Gen
   “Who is hugging his child?”

b. CP
   Opi
   C’
   C
   AspP
   yumayapos
   vP
   [nanay=niya]\n   v’
   tv+v
   VP
   tv
   tOp

Licensing of negative polarity items additionally indicates that ergative and absolutive nominals do not move to a position above negation prior to Spell-Out. Negative polarity items take the form of a wh-word followed by the adverbial particle man ‘even if/also’, e.g. anuman ‘anything’ (ano ‘what’ + man), sinuman ‘anyone’ (sino ‘who’ + man). These function as NPIs in the context of negation but not in positive contexts, indicating that they are licensed as NPI only when c-commanded by a negator.
Tagalog

(26) a. Wala-ng *anuman* sa kwarto.
   not.exist-Lk anything P room
   “There is nothing in the room.”

b. *Mayroon-g anuman* sa kwarto.
   exist-Lk anything P room
   “There is anything in the room.”

NPI is licit in negative existential constructions when the NPI is the complement of the existential verb or when it is in the absolutive possessor position.

Tagalog

(27) a. Wala-ng *anuman-g* b-in-ili ang babae.
   Neg-Lk anything-Lk -Perf-buy Abs woman
   “The woman didn’t buy anything.”

b. Wala-ng b-in-ili-ng libro *ang sinuman*.
   Neg-Lk -Perf-buy-Lk book Abs anyone
   “Noone bought books.”

The same is true in non-stative, agentive clauses. The NPI can appear in the VP as an oblique or absolutive.

Tagalog

(28) a. Hindi siya t-um-anggap ng *anuman-g mungkahi*.
   Neg 3s.Abs -Intr.Perf-accept Obl any-Lk proposal
   “He/she didn’t accept any proposal.”

b. Hindi niya t-in-anggap ang *anuman-g mungkahi*.
   Neg 3s.Erg -Tr.Perf-accept Abs any-Lk proposal
   “He/she didn’t accept any proposal.”

An NPI can also appear in external argument position, as ergative or absolutive.

Tagalog

(29) a. Hindi t-um-anggap ang *sinuman* ng mungkahi-niya.
   Neg -Intr.Perf-accept Abs anyone Obl proposal-3s.Gen
   “Noone accepted his/her proposal.”

b. Hindi t-in-anggap ng *sinuman* ang mungkahi-niya.
   Neg -Tr.Perf-accept Erg anyone Abs proposal-3s.Gen
   “Noone accepted his/her proposal.”

The NPI examples above show that both ergative and absolutive DPs are located in a position c-commanded by negation in declarative clauses.
The evidence given above clearly shows that Tagalog external arguments c-command internal arguments in neutral word order. This evidence also argues against a possible alternative analysis of Tagalog word order such as Guilfoyle et al. (1992) in which the absolutive DP raises to a clause-final subject position. The structure in (31b) incorrectly predicts that the absolutive c-commands the ergative DP, contra the facts given above.

(Tagalog)

(31)  

    -Tr.Perf-buy Erg woman Abs book  
    "The woman bought a book."

b.  
    IP  
    |  
    I' libro  
    |  
    I VP  
      |  
      binili babae tV tlibro  

Wh-movement and focus fronting of non-DPs takes place in the usual way, targeting [Spec, CP].

(Tagalog)

(32)  

a. Saan b-in-ilang ni Maria ang libro?  
    where -Tr.Perf-buy Erg Maria Abs book  
    "Where did Maria buy the book?"
5. VOS Analysis for Seediq

Since there is a fixed position for the absolutive in Seediq, as seen in section 3, resulting in VOS word order, this order can be derived by moving the absolutive DP to a position above TP and then fronting the remnant TP to the left of the absolutive. I present this analysis as well as arguments for preferring the predicate-fronting approach over an alternative analysis based on right-ward movement of the absolutive. First, I show that Seediq also has verbal head-movement to Asp, just as it does in Tagalog.

Below, I summarize the process of VOS word order derivation in Seediq. In the transitive clause shown in (33), the absolutive DP is merged in VP. The EPP feature on \( \nu \) attracts this DP to the \( \nu P \) phase edge, where the absolutive checks case with T. The verb also undergoes head movement from VP and raises to the Asp position. Next, an EPP feature on C forces the absolutive to move to its specifier. Remnant TP-fronting takes place subsequently.

Seediq
(33)  a. Wada burig-un na Ape ka patis na Pawan.
    Past buy-Tr Erg Ape Abs book Gen Pawan
    “Ape bought Pawan’s book.”
5.1. V-movement

(34) clearly shows that the verb appears to the left of the ergative DP in basic word order. In this section, I argue that the verb reaches its position by head-movement and not via remnant VP-movement.

Seediq

(34) \[ \text{TP} \ Wada \ [\text{AspP} \ burig-un \ [vP \ na \ Ape \ [vP \ tv \ t_{Abs} \ ]] \]
Past buy-Tr ErgApe
\[ \text{ka} \ \text{patis} \ \text{na} \ \text{Pawan.} \]
Abs book Gen Pawan
“Ape bought Pawan’s book.”

I begin by introducing Seediq tense/aspect morphology. Verbs can reduplicate or be infixed to indicate aspect, as shown in (35a) and (35b). In order to indicate imperfective in Seediq, an auxiliary must be used, as shown in (35c).

Seediq

(35)  
   a. m-n-ege
       Intr-Perf-give
       “gave”
   b. b-bege
       Red-give
       “will give”
c. **gaga** m-ège
   Pres   Intr-give
   “be giving”

The synthetic forms for the perfective and contemplative may also be substituted by analytic forms. (36) shows that perfective can be expressed either by the infix or with the auxiliary.

**Seediq**

(36) a. M-n-ari patis ka Awe.
   Intr-Perf-buy book Abs Awe
   “Awe bought a book.”

   b. Wada m-ari patis ka Awe.
   Past Intr-buy book Abs Awe
   “Awe bought a book.”

Note, however, that when the negator *ini* appears, only the auxiliary can be used.

**Seediq**

(37) a. Wada ini ekan ido ka Pawan.
   Past Neg eat rice Abs Pawan
   “Pawan did not eat rice.”

   b. *Ini m-n-ekan ido ka Pawan.
   Neg Intr-Perf-eat rice Abs Pawan
   “Pawan did not eat rice.”

This is further evidence that the main verb raises no higher than Asp and against a possible analysis under which the relative positions of tense and negation can be parametrized, such as Ouhalla (1990). The example in (37a) clearly shows that tense precedes negation.

Additional evidence comes from the fact that, even in the presence of an auxiliary, the verb can still be reduplicated to show aspect. Although infixation and reduplication cannot apply simultaneously on a verb stem in Seediq, as they can in Tagalog, present tense and incompletive aspect can occur together, resulting in an interpretation of immediate future.

**Seediq**

(38) a. **Gaga**=nami bu-bulieq sapah.
   Pres=1p Red.Intr-fix house
   “We are going to fix the house.”

   b. **Gisu** mu-maha purading mu-uyas patis.
   Pres.3s.Abs Red.Intr-go begin Intr-study book
   “He/she is about to go begin studying (in school).”

This contrasts with simple present tense, using only the auxiliary.
Seediq

(39) **Gisu/gaga** m-ekan qutsuruh saya Awe-ni.
Pres Intr-eat fish now Awe-Def
“Awe is eating a fish now.”

This suggests the following structure, in which the auxiliary is merged in T, and the verb moves to an aspectual projection below it

(40) \[ \begin{array}{c}
TP \\
\text{Aux} \\
\text{AspP} \\
V+v+Asp \\
vP \\
\text{DPAg} \\
v' \\
\text{tVP} \\
\text{VP} \\
\end{array} \]

This does not, however, rule out a derivation based on VP-movement. This would be remnant VP-movement, the absolutive object having moved to the topic position in [Spec, C]. VP-fronting would allow the verb to check its aspectual features in the specifier of Asp.

(41) \[ \begin{array}{c}
TP \\
\text{Aux} \\
\text{AspP} \\
VP \\
\text{Asp’} \\
\text{Asp} \\
vP \\
\text{DPAg} \\
v' \\
\text{tVP} \\
\text{VP} \\
\end{array} \]

On the other hand, there is other evidence in favor of the head-movement analysis. Another characteristic of verbal morphology in the context of negation is that the verb must be in its irrealis form.

Seediq

(42) a. Wada **m-ekan** ido ka Pawan.
Past Intr.Real-eat riceAbs Pawan
“Pawan ate rice.”

\[ ^2 \text{Travis (2000) has also proposed two aspectual projections for Austronesian languages. Travis (1991) specifically assigns reduplication to the lower projection.} \]
b. Wada ini ekan ido ka Pawan.  
Past Neg Intr.Irr.eat rice Abs Pawan  
“Pawan did not eat rice.”
c. *Wada ini m-ekan ido ka Pawan.  
Past Neg Intr.Real-eat rice Abs Pawan  
“Pawan ate rice.”

This suggests a selectional relationship between negation and the projection hosting the verb stem. In other words, the verb must be the head of the sister of Neg and not contained inside its specifier.

Further evidence for verb-movement out of vP comes from adverb placement. Adverbs like riong ‘often’ intervene between the verb and direct object, indicating that the verb has moved out of VP, stranding the object.

Seediq
(43) a. M-imah riong sino ka Awi.  
Intr-drink often wine Abs Awi  
“Awi often drinks wine.”
b. S-bari riong hulama na ape ka laqi.  
App-buy often treat Erg Ape Abs child  
“Ape often buys the child a treat.”

This adverb follows the verb even when the negator ini appears in the clause, indicating that the verb-movement still takes place in the presence of negation but that the landing site is located below Neg.

Seediq
(44) a. Ini=ku usa riong.  
Neg=1s.Abs go often  
“I don’t go often.”  

b. NegP
  ini  AspP
  V+v+Asp  vP
  DP_{Ag}  V'
  t_{V+v}  VP  
  riong  VP

VP coordination also shows that the verb moves out of VP. The remnant VPs can be conjoined, to the exclusion of the verb itself.
I may point out at this time that an analysis of VOS word order which combines verbal head movement with phrasal predicate fronting is not so surprising, as this is the approach also taken by Pearson (2001, 2006) for Malagasy.

5.2. Evidence for Movement of the Absolutive

The next two subsections provide evidence for the predicate-fronting derivation of Seediq basic word order. I first show that the absolutive DP moves out of TP. At the beginning of section 5, I proposed that the absolutive DP moves to [Spec, C], which I assume to be an A’-position, where it is interpreted as a topic. Initial evidence is provided structural relations. In Seediq, only absolutes in antipassives can antecede reflexives. Therefore, the agent absolutive in the antipassive in (46) can bind the benefactive reflexive. In their base positions, the agent absolutive c-commands the reflexive, satisfying Condition A of the Binding Principles. Subsequently in the derivation, the absolutive DP moves to the C domain, but it will never be in a position which is c-commanded by the reflexive.

(46) a. Wada=nak m-ari rulu ka Ape.
    Past=Refl Intr-buy car Abs Ape
    “Ape bought herself a car.”

b. \[
\begin{array}{c}
\text{TP} \\
\text{Past} \\
\text{AspP} \\
V+\gamma+\text{Asp} \\
\gamma P \\
\text{DP}_{\text{Abs}} \\
\gamma' \\
t_{\gamma+\gamma} \\
\text{VP} \\
t_V \\
\text{DP}_{\text{Ref1}}
\end{array}
\]

The transitive version of (46) is not grammatical. In this sentence, the intended antecedent has ergative status. The reflexive is the absolutive, licensed by the benefactive applicative morphology on the verb. In their base positions, the ergative c-commands the reflexive, satisfying Condition A.
(47) a. *Wada=nak s-bari rulu na Ape.
Past=Refl.Abs App-buy car ErgApe

b.  
```
TP
  Past AspP
    V+V+Asp vP
      DP_Erg v'
        tV+v[EPP] VP
          tv D P Erg v'
            tV+V
              tRefl
```

However, c-command relations will be reversed when the absolutive DP moves out of its base position to the outer specifier of $v$. If we assume cyclic application of Condition A (Baltin 2000), the absolutive DP is no longer bound by the ergative DP. In fact, the absolutive reflexive now c-commands and binds the intended antecedent, invoking a Condition C violation$^3$.

(48)  
```
AspP
  V+V+Asp vP
    DP_Refl v'
      DP_Erg v'
        tV+v
          VP
            tv
```

NPI licensing also provides evidence that absolutes reside in a high position at the relevant point in the derivation. Neg licenses a VP-internal oblique object NPI in an antipassive.

(49) a. Wada ini bari ani mumaanu ka Ape.
Past Neg buy anything Abs Ape
“Ape didn’t buy anything.”

$^3$ Hoji (1985), Tada (1993), Oka (1996), Takano (1997), McGinnis (1999), and others have shown that short scrambling in Japanese also alters binding relations.
However, Neg does not license an absolutive NPI.

Seediq

(50) a. *Ini burig-i na Ape ka ani mumaanu.
    Neg buy-Tr.Irr ErgApe Abs anything
    “Ape didn’t buy anything.”

b. *CP
    
    | ani mumaanu |
    C’
    
    | C[EPP] |
    TP
    
    | T |
    NegP
    
    | Ini |
    AspP
    
    | burigi |
    vP
    
    | t_animumaanu |
    v’
    
    | Ape |
    v’
    
    | tv+vp |
    VP
    
    Therefore, we can conclude that Neg in (50) does not c-command the absolutive.
Next, I examine clitic doubling. In (51a) and (51b), the absolutive yaku is resumed by clitics right-adjacent to the verb.

\begin{verbatim}
Seediq
(51)  a. [TP Gaga=ku=daha ngal-un ] ka yaku duri.
    Pres=1s.Abs=3p choose-Tr Abs 1s even
    “They have chosen even me.”
  b. [TP M-usa=ku mu-huma kyuuri=na ] ka yaku.
    Intr-go=1s.Abs Intr-plant cucumber=3s.Gen Abs 1s
    “I went to plant his cucumbers.”
\end{verbatim}

These clitics could merely be instantiations of agreement with the absolutive, as proposed by Chang (1997). However there is evidence to the contrary. By hypothesis, the absolutive DP must move out of TP to the C domain, so it is unclear whether (51a) and (51b) are cases of agreement or clitic dislocation. Evidence that clitics only occur with topics comes from the behavior of ergative clitics. An ergative pronoun replaces a full nominal argument, as shown in (52a). However, when an full ergative DP occurs in its base position, it cannot be resumed by a pronoun, as shown in (52b) and (52c).

\begin{verbatim}
Seediq
(52)  a. [TP Wada=na biq-un hulama ] laqi
    Past=3s.Erg give-Tr treat child.Abs
    “He/she gave the child a treat.”
  b. [TP Wada burig-un na Ape ] ka patis-ni.
    Past buy-Tr Erg Ape Abs book-Dem
    “Ape bought this book.”
  c. *[TP Wada=na burig-un na Ape ] ka patis-ni.
    Past=3s.Erg buy-Tr Erg Ape Abs book-Dem
    “Ape bought this book.”
\end{verbatim}

I conclude from this that the clitics in (51) are pronouns and not agreement markers. As such, they do not cooccur with a DP in argument position inside TP, which indicates in turn that the absolutive DPs in (51) have moved outside of TP, as per the hypothesis put forth in this paper.

Coordination also provides evidence that absolutives move out of TP. (53a) shows coordination of clauses in which ATB extraction has moved the absolutive laqi na ‘her child’ from both conjuncts. (50b) conjoins an intransitive and an antipassive.

\begin{verbatim}
Seediq
(53)  a. [AspP S-bari=na tAbs hulama ] ma
    App-buy=3s.Erg treat and
    [AspP s-smalu=na tAbs lukus dungan] ka laqi=na.
    App-make=3s.Erg clothes also Abs child=3s.Gen
    “She buys a treat for and also makes clothes for her child.”
  b. [AspP M-usa tAbs Purishia] [AspP m-ari tAbs sama] ka Ape.
    Intr-go Puli Intr.buy vegetable Abs Ape
    “Ape went to Puli and bought vegetables.”
\end{verbatim}
Additional evidence for movement of the absolutive comes from information structure. In a typical declarative Seediq clause, new or focused information tends to appear first in the clause, inside the predicate, with definite material follows, generally in the form of the absolutive DP in clause-final position. Consequently, non-absolutive internal arguments in immediate post-verbal position tend to be indefinite, non-specific, while the absolutive DP must be definite or generic. (54) demonstrates that this is indeed the case. (54a) introduces *qushia mutaso* “clean water”, where it is immediately after the verb, before the locative NP and the agent absolutive. In (54b), where it represents old information, it is the absolutive, while the NP representing new information *lukus* “clothes” has oblique status.

\[\begin{align*}
\text{Seediq} \\
(54) & \quad \text{a. } M-n-\text{oda} \ m-\text{ari} \ \textcolor{red}{\textit{qushia mutaso}} \ Hori \ ka \ Ape. \\
& \quad \text{Intr-Perf-go Intr-buy water clean Puli Abs Ape} \\
& \quad \text{“Ape went to Puli to buy clean water.”} \\
& \quad \text{b. } Wada=\text{na} \ s-\text{pahu} \ \textcolor{red}{\textit{lukus}} \ ka \ \textcolor{red}{\textit{qushia mutaso}}. \\
& \quad \text{Past=3s.Erg App-wash clothes Abs water clean} \\
& \quad \text{“She washed clothes with the clean water.”}
\end{align*}\]

In contrast to this, XPs which cannot be topicalized are not permitted to appear in absolutive position in Seediq. For instance, *wh*-words cannot occur in absolutive position. This is true not only for Seediq but also for Malagasy.

\[\begin{align*}
\text{Seediq (Chang 1997:146)} \\
(55) & \quad \text{a. } \textit{Ima} \ (\text{ka}) \ [\text{CP Op [TP s-m-ebut } t_{\text{Op}} \text{ laqi ]}] \\
& \quad \text{who Abs -Intr-hit child} \\
& \quad \text{“Who hits a child?”} \\
& \quad \text{b. } *\text{s-m-ebut laqi ka } \textit{ima}? \\
& \quad \text{-Intr-hit child Abs who} \\
& \quad \text{“Who hits a child?”}
\end{align*}\]

\[\begin{align*}
\text{Malagasy (Sabel 2003:11)} \\
(56) & \quad \text{a. } \textit{Inona} \ \text{(ny)} \ [\text{CP Op [TP novidin-dRabe } t_{\text{Op}} \text{ ]}]? \\
& \quad \text{what Foc Past.TT.buy-Rabe} \\
& \quad \text{“What did Rabe buy?”} \\
& \quad \text{b. } *\text{novidin-dRabe (ny) } \textit{inona}? \\
& \quad \text{Past.TT.buy-Rabe Det what} \\
& \quad \text{“What did Rabe buy?”}
\end{align*}\]

Another related asymmetry is that observed between strong and weakly quantified DPs. Strongly quantified DPs tend to be given absolutive status.

\[\begin{align*}
\text{Seediq} \\
(57) & \quad \text{Wada=na } \text{burig-un } \textcolor{red}{\textit{kanna patis}}. \\
& \quad \text{Past=3s.Erg buy-Tr all book.Abs} \\
& \quad \text{“He/she bought all the books.”}
\end{align*}\]
Interestingly, weakly quantified DPs cannot appear in absolutive position. If they appear in situ in the clause, they must have oblique status, e.g. as the object of an antipassive verb.

Seediq
(58)  a. Wada m-ari egu nashi kAwe-ni.
    Past Intr-buy many pear Top Awe-Def
    “Awe bought a lot of pears.”

   b. ?*Wada=na burig-un egu nashi kAwe-ni.
      Past=3s.Erg buy-Tr many pear Top Awe-Def

5.3. Evidence for Predicate-fronting

The predicate-fronting analysis also accounts for the inability of adjuncts to front in Seediq. First, the absolutive undergoes topicalization to the C domain, since the fronted TP forms an island to extraction. Movement from within this constituent would violate the Condition on Extraction Domain.

Seediq
(59)  a. M-n-ari inu patis Ape?
    Intr-Perf-buy where book Ape
    “Where did Ape buy books?”

   b. ?*Inu m-n-ari ti patis Ape?
      where Intr-Perf-buy book Ape

c.

    CP
      TP
        inu patis
          m
          n-ari

    C’
      Apé
        C[EP]
          tTP

The island-hood of the predicate phrase is not predicted by rightward raising of the absolutive in accounts of Holmer (1996) and Chang (1997), based on Guilfoyle et al. (1992). There is no obvious way to account for the difference between Seediq and Tagalog in terms of adjunct-fronting.

Seediq
(60)  a. Mimah sino ka Pawan.
    Intr-drink wine Abs Pawan
    “Pawan drinks wine.”
To summarize sections 4 and 5, the contrast between Tagalog and Seediq in terms of structural relations is accounted for naturally by the different mechanisms I have proposed for deriving their word order. In Tagalog, VSO word order is generated by moving the verb to Asp. Since the ergative and absolutive DPs remain in their base positions, the absolutive DP continues to be c-commanded by the ergative DP and by negation throughout the derivation. In Seediq, on the other hand, the absolutive moves out of TP, above the ergative DP and negation. The remnant TP then fronts to its left, thereby resulting in a structure in which neither the absolutive DP nor TP-internal material c-commands the other. Predicate-fronting also forms an island, which prevents TP-internal adjuncts\(^4\) from moving to clause-initial position.

6. DP-Extraction

We have seen in section 2 that DP-extraction has different structural properties from non-DP-movement. Non-DP-movement, appears to parallel familiar A’-movement to the C domain in that it targets [Spec, CP] and obeys island constraints. DP-movement, however, results in a cleft construction and is constrained by the absolutive restriction on A’-extraction, which is commonly found in syntactically ergative languages. In this section, I propose an account of the absolutive extraction restriction. I discuss the derivation of cleft constructions in section 8.

The proposal is based in the theory of Multiple Spell-Out (Chomsky 2000, 2001a, 2001b), the derivation takes place cyclically, phase by phase, with CP and vP (minimally) designated as phases. In mapping to the phonetic representation, the sister (domain) of the phase head is spelled out (Chomsky 2001b). The edge of the phase, i.e. its head and specifiers, remain accessible until transfer of the next phase. Therefore, for movement to take place from a phase, the constituent to be moved must be located in the edge of that phase. Movement from a lower position would violate the Phase Impenetrability Condition.

\[
\text{(61) Phase Impenetrability Condition (Chomsky 2001b:5)}
\]

Only the edge of a phase (vP, CP) is accessible to operations.

\[^4\text{Time adverbs are allowed to appear in clause-initial position. I assume that these can be merged high, presumably adjoined to TP.}\]
Since movement in the Minimalist Program is assumed to be feature-driven, the phase head must carry an appropriate feature to trigger this movement. The feature on $v$ for movement of a direct object could be an EPP feature or, more specifically, an operator feature or a strong D feature.

(62) What did you $[vP \quad t_{\text{what}} \quad [v' \quad t_{\text{you}} \quad [v[D^*] \quad [vP \quad \text{eat} \quad t_{\text{what}}]]]]$?

Chomsky assumes that EPP features are generated on $v$ when needed or when movement has an effect on interpretation. However, the extraction asymmetry in Austronesian languages seems to suggest that this cannot be the case in all languages. In other words, $v$ is prevented from carrying an EPP feature in certain circumstances. Aldridge (2004a, b; 2005a) proposes that in syntactically ergative languages, transitive $v$ is allowed to carry an EPP feature, while intransitive (including antipassive) $v$ cannot. When $v$ carries and EPP feature, the absolutive DP raises to the $vP$ phase edge, where it is visible to a probe in the next higher phase and eligible to undergo further movement, e.g. to [Spec, CP]. Transitive $v$ also carries a structural absolutive case feature, which it checks and values with the highest DP in its c-command domain. In intransitive clauses, it is $T$ which checks absolutive case$^5$.

(63) $v$-Type Ergativity$^6$

$v_{\text{Tr}}$: $[u\text{Case}:\text{Abs}]$ feature to value with a DP in its c-command domain.
Inherent ergative case to assign to the external argument.
$[D^*]$ feature to draw the absolutive DP to the $vP$ phase edge.

$v_{\text{Intr}}$: No case feature.
No $[D^*]$ feature.

$T_{\text{Fin}}$: $[u\text{Case}:\text{Abs}]$ feature in intransitive clauses.

$T$ has an absolutive case feature exactly when $v$ is intransitive by means of selection between finite $T$ and $v$. Finite $T$ with an absolutive case feature must select an intransitive $v$; it cannot select a transitive $v$. This ensures that $T$ and $v$ do not both check case within the same clause.

The following examples illustrate how the system works. In a transitive clause, $v$ checks the case feature of the direct object and values it as absolutive. The absolutive DP then raises to the $vP$ phase edge by EPP feature on $v$. This places the absolutive object in the $vP$ phase edge and makes it visible to a probe in the next highest phase, e.g. a [wh] or operator feature on $C^7$.

---

$^5$ Aldridge (2004) proposes that there are two types of syntactic ergativity. Minimally, Tagalog and Eskimo languages belong to the $v$-type. In the other type, T-type ergative languages, absolutive case is checked uniformly by $T$. Seediq belongs to the T-type. Except for the fact that absolutive case is always checked by $T$ and never by $v$, the analysis of case-checking and DP-extraction in Seediq is identical to Tagalog.

$^6$ The analysis of $v$-type ergativity is based on Aldridge (1998), which, to my knowledge, is the earliest analysis of ergativity in which absolutive case licensing is divided between the subject and object case positions. See also Legate (2003) for a similar analysis of Warlpiri.

$^7$ In point of fact, it is only the absolutive object which can be extracted. Although it is located in the $vP$, the ergative DP cannot be moved over the absolutive. This is surprising, if we assume that both specifiers of $vP$ are equidistant from $C$. However, there is a recent trend away from such employment of the notion of equidistance (Fox and Pesetsky, to appear; Rackowski and Richards, 2005; among others). For example, if we consider the approach in Rackowski and Richards (2005), they ensure that only the highest (closest) specifier in $vP$ can enter into an Agree relation with a probe on $C$ with the following definition of ‘closest’.
In an applicative construction, it is the applied object which can be extracted. In the general vein of Pylkkanen (2002), applied objects are merged in the specifier of an applicative functional projection located between $v$ and VP. This results in the applied object being in a structurally more prominent position than the theme DP. It is, therefore, the applied DP which checks absolutive case with transitive $v$ and is raised to the outer specifier of $vP$ by the EPP feature on $v$. The theme receives inherent case from the lexical verb.

A goal $\alpha$ is the closest one to a given probe if there is no distinct goal $\beta$ such that for some X (X a head or maximal projection), X c-commands $\alpha$ but does not c-command $\beta$.

This, then, effectively prevents extraction of the ergative DP over the absolutive.
In an intransitive clause, absolutive case is checked and valued by T. If we assume with Chomsky (2001a) that unaccusative, including passive, vP is a weak phase, then T can probe down into VP without violating the Phase Impenetrability Condition.

A semantically transitive clause with intransitive morphology on the verb is an antipassive. Since antipassives are formally intransitive, T values absolutive case on the external argument. The object receives inherent oblique case from the verb. Intransitive v also has no EPP feature, so the object remains in its base position in VP. Since the object remains in its base position inside VP, the external argument is the only DP in the vP phase edge and therefore the only DP eligible to undergo A’-extraction.

Tagalog

(66) a. Sino ang d-um-ating?
   who Abs -Intr.Perf-arrive
   “Who arrived?”

b. TP
   T
   vP
   DP_{[Abs]} v’
   DP_{[Erg]} v’
   -in-_{[Abs, EPP]} ApplP
   tDP_{[Abs]} Appl’
   i- VP

(67) a. Sino ang b-um-ili ng isda?
   who Abs -Intr.Perf-buy Obl fish
   “Who bought a/the fish?”
The proposal that DP-extraction is not constrained by word order derivation but is rather an artifact of ergative syntax in these languages serves to anchor the analysis of Tagalog in the broader typology of ergative syntax. It is well known that, in syntactically ergative languages, absolutes are the only DPs able to undergo A’-movement operations like relativization and wh-movement⁸ (Payne 1982; England 1983; Dixon 1979, 1994; Bittner 1994; Manning 1996; Campana 1992; among many others). In Dyirbal, for example, the sole argument of an intransitive verb can be relativized, as in (68a), but the ergative DP cannot be extracted. In order to relativize on a transitive agent, the clause has to antipassivize, as in (68b).

\[\text{Dyirbal (Dixon 1994:169-70)}\]

(68) a. nguma, [ eti banaga-ngu] yabu-nggu bura-n
   father.Abs return-Rel.Abs mother-Erg see-Nonfut
   “Mother saw father, who was returning.”

b. yabu, [ eti bural-nga-ngu nguma-gu]banaga-nyu
   mother.Abs see-AP-Rel.Abs father-Dat return-Nonfut
   “Mother, who saw father, was returning.”

The same is true in Eskimo languages such as Yup’ik and West Greenlandic. In the transitive clauses below, only the absolutive internal argument can be relativized, not the external argument.

\[\text{W. Greenlandic (Manning 1996:84)}\]

(69) a. nanuq Piita-p tuqu-ta-a
   polar.bear.Abs Piita-Erg kill-Tr.Part-3s
   “a polar bear killed by Piita”

b. *angut aallaat tigu-sima-sa-a
   man.Abs gun.Abs take-Perf-Rel.Tr-3s
   “the man who took the gun”

---

⁸ Keenan and Comrie (1977) identify eleven languages, which they claim only allow subjects to undergo relativization. The problem with the designation of this grammatical function as subject (and not absolutive) is that nine of those eleven languages are Austronesian, which can be shown to either be ergative or to have remnant features of ergative syntax. Given also that Dixon’s (1994) test for syntactic ergativity involves identifying an absolutive pivot in operations like relativization, it is safe to assume that, in general, the restriction that only one grammatical function can undergo A’-extraction is a feature of syntactic ergativity.
An example is given below for Mam, Mayan. Transitive patients, as in (70a), but not transitive agents, as in (70b), can be extracted in constituent questions. In order to extract a transitive agent, the clause must be antipassivized, as in (70c).

Mam (England 1983:250-1)

(70) a. alkyee-q a x-hi tzaj-t-tzyu-7n Cheep
who-Pl Rec.Dep-3p.Abs Dir 3s.Erg-grab-Ds Jose
“Whom did Jose grab?”
b. *alkyee saj t-tzyu-7n kab’ xiinaq
who Rec.Dep.3s.Abs.Dir 3s.Erg-grab-Ds two man
“Who grabbed the men?”
c. alkyee saj tzyuu-n ky-e kab’ xiinaq
who Rec.Dep.3s.Abs.Dir grab-AP 3p-Rn two man
“Who grabbed the men?”

Note further that this restriction does not apply to adjuncts.

Mam (England 1983:252)

(71) a. ma kub’ t-tx’ee7ma-n Kyel tzee7 [pp t-u7u maachit]
Rec 3s.Abs.Dir 3s.Erg-cut-Ds Miguel tree 3s-RN/Inst machete
“Miguel cut the tree with a machete.”
b. [pp al u7u] x-kub’ t-tx’ee7ma-n Kyel tzee7
what RN/Inst Rec.3s.Abs.Dir 3s.Erg-cut-Ds Miguel tree
“With what did Miguel cut the tree?”

The change in the aspect marker which precedes the main verb in (71b) indicates that the verb is in the dependent form. Fronted constituents are often followed by dependent verb forms. This does not, however, reflect a change in the grammatical status of the PP. In both (71a) and (71b), Miguel and tzee7 ‘tree’ have ergative and absolutive status, respectively, as indicated by the agreement markers in the verbal complex and by the absence of prepositional or inherent case markers on the nominals themselves. Therefore, it is not the case that the instrument has been promoted to absolutive status in (71b).

To summarize this section, the absolutive restriction on A’-extraction applies to DP-movement and is accounted for by allowing transitive, but not intransitive v to carry an EPP (specifically a strong [D]) feature. This restriction applies in both Tagalog and Seediq, as well as other syntactically ergative languages.

7. VP-fronting in Toba Batak

In section 5, I proposed a TP-fronting analysis of VOS word order in Seediq. TP-fronting alone, however, does not account for all types of VOS word order in Austronesian. Some languages derive basic word order through VP-fronting. Toba Batak is such a language.
(72) \[ \text{VP Mangallang kue} \text{ dakdanak i.} \]
\[ \text{AT.eat cake child the} \]
“The child is eating a cake.”

The fact that fronted VPs can be conjoined shows that the clause-initial verb and object form a constituent.

(73) \[ \text{VP Mangantuk si John} \text{ jala [VP manipak si Bob] si Fred.} \]
\[ \text{AT.hit PM John and AT.kick PM Bob PM Fred} \]
“Fred hit John and kicked Bob.”

Evidence that it is only the VP which fronts comes from the following. Although direct objects front with the verb in active clauses, PPs and adverbs are stranded to the right of the subject.

(74) a. \[ \text{VP Mangisap sandu nasida di djabu.} \]
\[ \text{AT.smoke opium they in house} \]
“They are smoking opium in the house.”

b. \[ \text{VP Mangisap sandu nasida nantoari.} \]
\[ \text{AT.smoke opium they yesterday} \]
“They smoked opium yesterday.”

In a ditransitive clause, one of the objects fronts with the verb, while the other is stranded. Note that it is the direct object which is stranded in (75b).

(75) a. \[ \text{VP Mangalean biang] si Torus tu si Ria.} \]
\[ \text{AT.give dog PMTorus to PMRia} \]
“Torus is giving a dog to Ria.”

b. \[ \text{VP Mangalean si Ria] si Torus biang.} \]
\[ \text{AT.give PMRia PMTorus dog} \]
“Torus is giving Ria a dog.”

(76) shows a stranded complement clause.

(76) \[ \text{VP Mangelek si Bill] si John [CP manuhor biang].} \]
\[ \text{AT.persuade PM Bill PM John AT.buy dog} \]
“John is persuading Bill to buy a dog.”

Time adverbs cannot intervene between the fronted verb and object, indicating that the clause-initial constituent is not large enough to include a position for such adjuncts.
(77) a. Nantoari [VP mangida si Ria] si Torus.
yesterday AT.see PM Ria PM Torus
“Torus saw Ria yesterday.”
b. [VP Mangida si Ria] nantoari si Torus.
AT.see PM Ria yesterday PM Torus
“Torus saw Ria yesterday.”
c. [VP Mangida si Ria] si Torus nantoari.
AT.see PM Ria PM Torus yesterday
“Torus saw Ria yesterday.”
d. *[VP Mangida nantoari si Ria] si Torus.
AT.see yesterday PM Ria PM Torus
“Torus saw Ria yesterday.”

The focus particle *do* provides further evidence for VP-fronting. *Do* can follow the clause-initial VP but cannot intervene between the verb and object, indicating that the verb and object form a constituent.

(78) a. [VP Mangallang kue] do dakdanak i.
AT.eat cake Foc child the
“The child is eating a cake.”
b. *[VP Mangallang do kue] dakdanak i.
AT.eat Foc cake child the
“The child is eating a cake.”

However, this constituent does not seem to include the subject or time adverbs.

AT.study he Foc yesterday
“He studied yesterday.”
b. *Nantoari marsiadjar do ibana.
yesterday AT.study Foc he
“He studied yesterday.”

Negation is also not part of this constituent.

(80) a. Ndang marsiadjar dakdanak i.
Neg AT.study children the
“The children are not studying.”
b. *[Ndang marsiadjar] do dakdanak i.
Neg AT.study Foc children the
“The children are not studying.”
Comparing actor topic from theme topic clauses, VP-fronting is clearly shown in the former but is less evident in the latter. In (81b), the verb is directly followed by the ergative agent, while the absolutive object is stranded after the agent.

Toba Batak (Schachter 1984:125)

(81) a. [VP Mangida si Ria] si Torus nantoari.
   AT.saw PMRia PMTorus yesterday
   “Torus saw Ria yesterday.”
   b. Diida si Torus si Ria nantoari.
   TT.saw PMTorus PMRia yesterday
   “Torus saw Ria yesterday.”

Evidence that the verb and external argument in (81b) do not form a constituent (to the exclusion of the absolutive) comes from the fact that the agent can bind an absolutive reflexive, indicating that the former c-commands the latter. This would seem to indicate that either verbal head-movement takes place in non-actor topic clauses or that this is actually remnant VP-fronting, similar to the type proposed by Massam (2000, 2001, 2003) for Niuean.

Toba Batak (Schachter 1984:130)

(82) Diida si Torus dirina.
   TT.saw PMTorus himself
   “Torus saw himself.”

To summarize the discussion so far, Toba Batak appears to have VOSX order in actor topic clauses and VSOX order in non-actor topic clauses. The absolutive appears in the third position in the clause, following either the fronted VP (in actor topic clauses) or the verb and the ergative external argument (in non-actor topic clauses).

Extraction in Toba Batak follows the Tagalog pattern. The direct object can be extracted from a theme topic clause, where it has absolutive status, but not from an actor topic clause, where the subject is the absolutive.

Toba Batak (Schachter 1984:126)

(83) a. Aha diida si John?
   What TT.see PMJohn
   “What did John see?”
   b. *Aha mangida si John?
   what AT.see PMJohn
   “What did John see?”

But there is no restriction on adjuncts and PPs.

Toba Batak (Silitonga 1973:99)

(84) Andigan ho mulak?
   when you return
   “When will you return?”
The similarity to Tagalog, added to the evidence in (72) – (82), clearly points to an analysis based on fronting of a small verbal projection, most likely the (remnant) VP, and not an analysis based on fronting a larger constituent, such as the one proposed by Cole and Hermon (2006). Cole and Hermon propose that VOSX word order is derived by moving the absolutive (‘subject’ in their terminology) out of the extended verbal projection (VoiceP) to a functional projection, which they designate as FP but whose actual content should be understood as AspP or TP. Following that, the remnant VoiceP moves to a higher functional projection above the absolutive.

In a passive, it is the absolutive internal argument which raises to the specifier of the first FP. The key example which Cole and Hermon offer to show that the theme absolutive is not c-commanded by the agent is (87). Here, an ergative reflexive is bound by the absolutive. They claim that this shows that there is a level of representation in which the agent does not c-command the absolutive.
Recall that this type of binding relation does not obtain in Tagalog. The ergative DP can bind the absolutive but not vice-versa.

Tagalog

(88) a. P-in-igil ng lalaki ang sarili=niya.
   -Tr.Perf-control Ergman Abs self=3s.Gen
   “The man controlled himself.”

b. *P-in-igil ng sarili=niya ang lalaki
   -Tr.Perf-control Ergself=3s.Gen Abs man

However, I should point out that examples in which the ergative DP antecedes an absolutive reflexive are considered ungrammatical by Schachter (1984).

Toba Batak (Schachter 1984:130)

(89) a. Diida si Torus dirina.
   TT.saw PMTorus himself
   “Torus saw himself.”

b. *Diida dirina si Torus.
   TT.saw himself PMTorus
   “Torus saw himself.”

Cole and Hermon also admit that their speakers find cases like (87) less usual than cases in which the agent is the antecedent. Furthermore, if we compare (87) and (89a), we discover that there is a difference in the way the reflexive is expressed. It might be the case that (87) is possible because of its phrasal nature. The reflexive dirina is contained within a larger DP constituent. It therefore does not c-command the intended antecedent and thereby circumvents a Condition C violation. Given this possible analysis of (87) and the fact that (89b) is ungrammatical, I will tentatively assume a lack of direct evidence for movement of the absolutive.

Stranding is another question left open by Cole and Hermon’s analysis. Cole and Hermon propose that it is the fronting of VoiceP which accounts for the extraction asymmetry in (83). PPs and other adjuncts are allowed to front, because they are moved outside of VoiceP before it moves to the highest FP. They propose that the stranded material moves first out of VoiceP, followed by the absolutive. After raising of Voice P, the adjunct will follow the absolutive in surface order.

Toba Batak (Cole and Hermon 2006)

(90) a. Mang-alean buku si-John tu si-Mary.
   Act-give book Hon-John to Hon-Mary
   “John gave a book to Mary.”
However, if movement to FP is the mechanism which accounts for stranding, then (91) must also be derived by moving the object to the lower FP. But if this is allowed to happen, then Cole and Hermon lose their generalization that predicate-fronting prevents objects from fronting, since they must be allowed to move out of VoiceP when they are stranded.

(91) \[ VP \text{ Mangalean} \ si \ Ria \] \ si \ Torus \ biang.  
AT.give \ PMRia \ PMTorus \ dog  
“Torus is giving Ria a dog.”

To conclude the discussion of Toba Batak, I assume a VP-fronting analysis for this language. For the purposes of this paper, I leave aside the question of whether the verb independently undergoes head-movement.

(92)  

a. \[ vP \ [ VP \text{ Mangida} \ si \ Ria) \ si \ Torus] \ tVP \ nantoari.  
AT.saw \ PMRia \ PMTorus \ yesterday  
“Torus saw Ria yesterday.”

b. \[ vP \ [ VP \text{ Diida} \ tAbs \] \ si \ Torus) \ si \ Ria \ tVP \ nantoari.  
TT.saw \ PMTorus \ PMRia \ yesterday  
“Torus saw Ria yesterday.”

VP-fronting is actually not a typologically rare feature of Austronesian syntax. Kapampangan also shows signs of VP-movement. (93a) is a typical ditransitive clause, where the theme is the absolutive. The word order is: verb, agent, theme, goal. (93b) is the dative-shifted version of
The goal is now the absolutive, and the theme has fronted together with the verb to a position to the left of the agent.

Kapampangan (Rowsell 1983:56)

(93) a. Binye=-ne ning babai ing libro king anak.
gave=she/it Erg woman Abs book DAT child
“The woman gave the book to the child.”
b. [VP Dininan=ne-ng libro] ning babai ing anak.
gave=she/it-OBL book Erg woman Abs child
“The woman gave the child a book.”

Aldridge (2004a, 2005b) has proposed that, under certain conditions, VP-fronting takes place in addition to TP-fronting in Seediq. This can be seen most clearly in transitive clauses when the agent remains in its base position. The verb and indefinite object appear between the tense marker and the external argument.

Seediq

Past App-buy treat Erg Ape Abs child
“Ape bought the child a treat.”
Past eat-Tr chopsticks Erg Ape Abs fish-Def
“Ape ate the fish with chopsticks.”

In this paper, we have seen a good deal of variety in terms of A’-fronting operations in several verb-initial ergative Austronesian languages. Seediq, Tagalog, and Toba Batak, as syntactically ergative languages, constrain DP-movement in the same way, by limiting a strong [D] EPP feature to transitive (and not intransitive) v. Movement of non-DPs, however, differs from DP-movement, both in terms of its structural properties, as well as its cross-linguistic variation. These differences between DP and non-DP movement, as well as the different possibilities for non-DP movement in different languages, can be accounted for by positing that non-DP movement is A’-movement to the C domain, and those languages with VOS word order derived by fronting TP to a specifier of C do not allow additional fronting from within TP.

The final sections of this paper discuss the motivation for predicate-fronting, particularly TP-fronting, and some consequences of that motivation for other aspects of Austronesian syntax.

8. Motivation for Predicate-Fronting

Aldridge (2004a, 2005b) proposes that predicate-fronting is related to interpretation. There is a broad tendency in verb-initial Austronesian languages for the initial position in the C domain to be given a focus interpretation. If a DP follows this initial constituent, it is generally presupposed.

(95) [CP XP [C· DP [C· C . . . ]]]
(focus) (presupposition)

Toba Batak is actually a split-ergative language. However, it retains ergative syntax with respect to DP-extraction.
In section 5.2, I have discussed how information structure interacts with VOS word order in Seediq. One key example is repeated below. The absolutive DP is always topicalized or presupposed; new information is contained inside the fronted TP.

**Seediq**

(96) a. [TP M-n-oda m-ari qushia mutaso Hori] ka Ape.
Intr-Perf-go Intr-buy water clean Puli Abs Ape
“Ape went to Puli to buy clean water.”
b. [TP Wada=na s-pahu lukus] ka qushia mutaso.
Past=3s.Erg App-wash clothes Abs water clean
“She washed clothes with the clean water.”

Pearson (2001, 2006) shows that the clause-final absolutive is definite or topicalized in Malagasy.

**Malagasy** (Pearson 2001:88)

(97) a. Novidin-dRajaona ny boky.
Past.AccP.buy-Rajaona Det book
“Rajaona bought the book.”
b. *Novidin-dRajaona boky.
Past.AccP.buy-Rajaona book
“Rajaona bought a book.”

Pearson (2006) shows additionally that stranded material other than the absolutive is also subject to this restriction. For the locative PP (98b) to move out of TP and be stranded to the right of the absolutive, it has to receive a presuppositional interpretation. There is no such restriction on clause-internal PPs like in (98a)

**Malagasy** (Pearson 2006)

(98) a. [Manoratra taratasy any an-tokotany] ny mpianatra.
AT.write letter there Obl-garden Det student
“The student is writing a letter in the garden.”
b. [Manoratra taratasy] ny mpianatra any an-tokotany.
AT.write letter Det student there Obl-garden
“The student is writing a letter in the garden.”

We have also seen in section 2 that fronted XPs in Tagalog receive a focus interpretation.

**Tagalog**

(99) Kay Maria=ko i-bi-bigay ang bulaklak.
to Maria=1sErg App-Red-give Abs flower
“I will give the flowers to Maria.”

Aldridge (2004a, 2005b) has noted an additional generalization. When a DP moves into the C domain, it must be preceded by a non-DP. This pattern is, of course, exemplified by VOS word
order in Seediq and Malagasy. The absolutive DP moves to a topic position. The remnant TP then fronts further to its left, as proposed in section 5.

A similar pattern can be observed in multiple wh-fronting in Malagasy. When this happens, an adjunct and an argument wh-phrase are fronted together. One interesting fact is that the adjunct must precede the argument.

Malagasy (Sabel 2003)
(100) a. **Aiza iza no mividy ny vary?**
   where who Foc Pres.AT.buy the rice
   “Where does who buy the rice?”
   b. **Iza aiza no mividy ny vary?**
   who where Foc Pres.AT.buy the rice
   “Where does who buy the rice?”

Note also that two DP wh-words cannot be fronted, again consistent with the generalization that a non-DP must precede a DP in the C domain.

Malagasy (Sabel 2003)
(102) a. **Iza inona no mividy?**
   who what Foc Pres.AT.buy
   “What does who buy?”
   b. **Inona iza no mividy?**
   what who Foc Pres.AT.buy
   “What does who buy?”

Additionally, Paul (2000) notes that the DP wh-phrase must be D-linked, in the sense of Pesetsky (1987). A sentence like (100a) is only felicitous when there is “a context-specified set of people, known to both the speaker and hearer, that restricts the range of possible answers.” (Paul 2000:201)

Another such construction is the “bodyguard” construction Malagasy. This word order can be derived if we assume that the non-DP element attracted to the outer specifier of C can be just the PP. The particle no is in the C position.

Malagasy (Keenan 1976:269)
(103) a. **Amin’ity savonyity Rasoa [no manasalamba].**
   with.this soap thisRasoa Cl AT.wash clothes
   “With this soap Rasoa washed the clothes.”
As for the interpretation, the DP still is interpreted as topic and not as part of the focus, as argued by Paul (2000). This is substantiated by the fact that the presupposition behind the adjunct can be negated but not the topic.

\[
\text{Malagasy (Paul 2000:195)}
\]

(104) a. Omaly Rasoa no nijinja vary.
yesterday Rasoa Foc Past.AT.harvest rice
“It was yesterday that Rasoa harvested rice.”
b. Tsia, afak’omaly izy no nijinja vary.
No free’yesterday 3.Nom Foc Past.AT.harvest rice
“No, it was the day before yesterday that she harvested rice.”
c. #Tsia, omaly Rakoto no nijinja vary.
no yesterday Rakoto Foc Past.AT.harvest rice
“No, it was yesterday that Rakoto harvested rice.”

Additionally, Paul argues extensively that the adjunct in clause-initial position receives a focus interpretation, while the absolutive remains a topic. The fact that the question particle ve intervenes between the focused XP and the bodyguard in a question indicates that the clause-initial XP is located in a focus position.

\[
\text{Malagasy (Paul 2000:190)}
\]

(105) Omaly ve Rasoa no nanapaka bozaka?
yesterday Q Rasoa Foc Past.AT.cut grass
“Was it yesterday that Rasoa cut the grass?”

Paul (2000, 2003) argues that bodyguard constructions are a type of cleft. This claim is not inconsistent with the analysis I have proposed. In the following section, I present my analysis of Austronesian cleft constructions. Like the bodyguard construction, cleft derivation involves movement of the focused constituent to the left of the presupposition. The facts observed so far in this section point in the direction of two generalizations.

(106) a. A clause-initial non-DP receives a focus interpretation.
b. A DP cannot appear initial position in the CP phase edge.

This suggests the following break-down of positions in the C domain. Essentially, TopP is the lower topic position proposed by Rizzi (1997). This is the position the absolutive moves to in
VOS languages like Seediq and Malagasy. FocP corresponds directly to Rizzi’s focus position. This is the position for the remnant predicate in Seediq and Malagasy. This is also the landing site for focus fronting in Tagalog, as well as the position for the clause-initial non-DP constituent in Malagasy multiple wh-fronting and the bodyguard construction.

(107) \[ \text{FocP XP [Foc' Foc}_{X*} [\text{TopP DP [Top'} \text{Top}_{D*} [TP \ldots]]] \]

Where X is not D.

There is an additional condition that FocP must be projected whenever [Spec, Top] is filled, but I leave aside the exact implementation for the present.

In purely descriptive terms, then, we could say that topicalization of the absolutive is what triggers predicate-fronting, since movement of the absolutive alone would strand this DP in the C domain. In Malagasy, there is the option of fronting a smaller non-DP constituent, resulting in the intriguing pattern observed in multiple wh-fronting and the bodyguard construction. Tagalog is not a VOS language and therefore does not generally force the absolutive to move to the C domain. But (107) can be still be observed to apply in constructions involving focus fronting, like (99). (107) is also related to the fact that DP wh-questions take the form of clefts in all three of these languages, which I discuss below.

We have seen in section 2 that wh-questions formed on DPs in a great many Austronesian languages take the form of clefts. The wh-phrase forms the matrix predicate, while the rest of the clause constitutes a headless relative and resides in matrix subject position.

(108) a. Maanu \[ \text{DP ka [CP Op [TP b-n-ari=na \text{t}_{OP}]]}] \?

what Abs -Perf-buy=3s.Erg

“How did she buy?”

b. Ano \[ \text{DP ang [CP Op [TP ga-gaw-in=mo \text{t}_{OP}]]} ]?

what Abs Red-do-Tr=2s.Erg

“What are you going to do?”

c. Inona \[ \text{DP [CP Op [TP novidin-dRabe \text{t}_{OP}]]} ]?

what Foc Past.TT.buy-Rabe

“What did Rabe buy?”

The headless relative checks absolutive case and moves to topic position. The wh-word, contained inside the fronted TP, moves to the focus position, where it receives the intended interpretation.

(109) a. Maanu \[ \text{DP ka [CP Op [TP b-n-ari=na \text{t}_{OP}]]} ]?

what Abs -Perf-buy=3s.Erg

“What did she buy?”
If, on the other hand, questions like those in (109) were derived directly through movement of the *wh*-phrase to the C domain, then we would end up with a structure which violates the generalization that DPs are topics, and a DP in the C domain must be preceded by a non-DP.

\[(110) \quad *[FocP \; DP_{wh} \; [Foc' \; Foc_{[X^*]} \; [TP \; \ldots]]] \]

At present, I reserve judgement as to whether *vP* has a structure parallel to (107), which is responsible for VP-fronting in languages like Toba Batak. There is some evidence that languages with VP-fronting use the *vP* phase edge as a focus position. I mentioned at the end of section 7 that VP-fronting sometimes takes place in Seediq. Seediq also has focus fronting to the edge of *vP*.

Although adjunct *wh*-words cannot move to clause-initial position in Seediq, they do seem to undergo short focus movement. The *wh*-word in (111a) immediately follows the verb, preceding the object *patis* ‘book’. But in a declarative clause, a locative generally follows a theme, as in (111b). This shows that TP-internal *wh*-words do move. (111c) further shows that the target for this movement is most likely the edge of *vP*. As shown in section 5, the verb in Seediq moves to Asp. The presence of the tense auxiliary in T makes it clear that the verb moves no higher than this position. The *wh*-word follows the main verb.

**Seediq**

(111)  

a. M-n-ari inu patis Ape?  
Intr-Perf-buy where book Ape  
“Where did Ape buy books?”

b. M-n-ari sapah Purishia ka Pihu.  
Intr-Perf-buy house Puli Abs Pihu  
“Pihu bought a house in Puli.”

c. Wada=na [AspP burig-un [vP inu_{Erg} {t_{Abs}}] patis-ni ka Awi?  
Past=3s.Erg buy-Tr where book-Def Awi Awi  
“Where did Awi buy the book?”
Another example involves fronting of a complement CP containing a *wh*-word. In the declarative clause in (112a), the clause follows the controller in the matrix VP. When the CP contains a *wh*-word, it moves to the left of the controller, as in (112b).

Seediq

(112) a. H-m-eidaq *laqi* [CP m-ari *rulu*] ka tama.
   -Intr-allow child Intr-buy car Abs father
   “The father allowed the child to buy a car.”

b. H-m-eidaq [CP m-ari *maanu*] *laqi* ka tama.
   -Intr-allow Intr-buy what child Abs father
   “What did the father allow the child to buy?”

However, I am no position at present to make such a claim for Toba Batak. So for present purposes, I will merely assume that VP-fronting in Toba Batak is driven by verbal features on v.

9. Considering Alternatives

In her analysis of VP-fronting in Niuean, Massam (2000, 2001, 2002, and 2003) has proposed that in predicate-fronting languages, T has a [Pred] feature and not a [D] feature. This ensures that these languages have verb-initial word order and that DPs never appear in clause-initial position. Consequently, there can be no DP *wh*-movement to [Spec, C]. As evidence, Massam (2002:11a) notes that bare DP *wh*-words cannot appear in clause-initial position but must be preceded by a predicate particle.

Niuean (Massam 2002)

(113) *Ko* hai ne lalaga e kato e:?
   Pred who C weave Abs basket this
   “Who wove this basket?”

Massam proposes the following structure, in which *ko* and the *wh*-word form the predicate and are merged in [Spec, IP].

(114)

```
  IP
 /     \
/      /
Pred    I'
ko Wh  Particles  DP
   \
  0    DP
      CP
         Op_i ... t_i
```

Though this analysis accounts for many aspects of Niuean syntax, Massam’s proposal is somewhat extreme when applied to other Austronesian languages. We have seen, for instance, that in languages like Tagalog and Toba Batak, it cannot be the case that the predicate must
necessarily appear in initial position in the clause, since focused PPs and adjuncts of various sorts can precede the main verb.

Tagalog

(115) Sa Maynila bi-bili si Maria ng bahay.  
    in Manila Red-buy Abs Maria Obl house  
    “Maria will buy a house in Manila.”

Pearson (2001, 2006) proposes a different kind of predicate-fronting account of Malagasy word order. The absolutive is merged in a topic position above TP and coindexed with an operator merged in argument position inside the clause.

(116) \[ [\text{TopP} \text{DP}_i [\text{Top'} \text{Top} [\text{WhP} \text{OP}_i [\text{WhP'} \text{Wh} [\text{TP} \ldots t\ldots] ]]]] \]

The clause is then fronted to the outer specifier of TopP.

(117) \[ [\text{TopP} [\text{WhP} \ldots] [\text{TopP} \text{DP}_i [\text{Top'} \text{Top} t\text{WhP} ]]] ]

Pearson claims that the motivation for predicate-fronting is essentially the same mechanism which drives T-C movement in V2 contexts in Germanic languages. The difference between Malagasy and Germanic V2 languages is that attraction of T in the former results in phrasal predicate-fronting, while in the latter it is simply head-movement of the verb.

The fundamental aspects of the predicate-fronting analysis I have been advocating are very similar to Pearson’s (2001) account of Malagasy. Essentially, VOS word order is derived by moving the absolutive DP to a topic position and then fronting the remnant clause to its left. I am skeptical, however, of the parallel Pearson draws between VOS word order and Germanic V2.

On the one hand, the analysis I am pursuing in this thesis does highlight an obvious similarity between Austronesian and Germanic syntax: predicate movement is triggered by topicalization. On the other hand, a parallel analysis of predicate-fronting and V2 glosses over an important difference between Austronesian predicate-fronting and Germanic V2. As Pearson points out, in Austronesian languages, the topic position must be filled by a DP, while the topic can be of different categories in Germanic languages: a DP in (118a), adverb in (118b), PP in (118c).

German (Pearson 2001:193)

(118) a. Hans veroffentlichte heuer in Deutschland ein Buch.  
    Hans published this.year in Germany a book  
    “Hans published a book this year in Germany.”

b. Heuer veroffentlichte Hans in Deutschland ein Buch.  
    this.year published Hans in Germany a book  
    “Hans published a book this year in Germany.”

c. In Deutschland veroffentlichte Hans heuer ein Buch.  
    in Germany published Hans this.year a book  
    “Hans published a book this year in Germany.”
There is also evidence that different landing sites are involved. In Germanic languages, V2 is prohibited in the presence of a complementizer.

Dutch (Diesing 2003)

(119) a. Gisteren heeft Herbert dat boek gekocht.
    “Yesterday Herbert bought that book.”

b. dat Herbert gisteren dat boek gekocht heeft.
    “…that Herbert bought that book yesterday.”

However, predicate-fronting is not blocked by a complementizer in Malagasy. The absolutive in (120) follows the predicate in the embedded clause headed by the complementizer fa.

Malagasy (Pearson 2001:113)

(120) Mihevitra Rakoto
    AT.think Rakato
    [fa namangy ny dadany ny mpianatra]
    thatPast.AT.visit Det father-3Gen Det student
    “Rakoto thinks that the student visited his father.”

Another way in which the parallel between Austronesian VOS and Germanic V2 breaks down is in information structure. We have seen that absolutives or topics in Malagasy and Seediq must always be definite or generic. Initial position in Germanic languages, however, is not reserved for topics but can also be filled by focused elements, e.g. wh-phrases.

German (Fanselow 2003:37)

(121) a. den Fritz hat sie eingeladen
    the.Acc Fritz has she invited
    “It is Fritz who she has invited.”

b. wen hat sie eingeladen
    who has she invited
    “Who has she invited?”

10. Summary and More Speculation

The claims made in this paper are both typologically general and parametrically specific. Consistent with the growing trend in Austronesian linguistics, I have shown that verb-initial word order in four languages can be derived by moving some portion of the predicate to clause-initial position. However, the size of the moved constituent differs across languages.

Verb-movement: Tagalog
VP-movement: Toba Batak
TP-movement: Seediq, Malagasy

42
I depart from another growing trend which attempts to relate all restrictions on A′-movement in these languages to predicate-fronting. First, I have shown that there are two types of A′-dependencies with different structural properties. Constructions based on DP-extraction result in a cleft structure, and movement within the relative clause portion of the structure is constrained by the absolutive restriction on A′-extraction. Non-DPs, on the other hand, front to [Spec, CP] or a clause-internal focus position. V-movement and VP-fronting languages allow movement of non-DPs to clause-initial position. In a VOS language whose word order is derived through TP-fronting, movement of the TP creates an island to extraction, preventing further movement out of TP.

There is an interesting asymmetry between Seediq and Malagasy. In Seediq, TP-fronting seems to be obligatory, and non-DPs never move out of TP but rather target a focus position in the edge of vP. In Malagasy, on the other hand, it seems possible to leave TP in situ and instead move a smaller focused constituent to clause-initial position. This is what happens in multiple wh-fronting and the bodyguard construction.

Finally, I have proposed that predicate-fronting (specifically, TP-fronting) in VOS languages is one manifestation of deeper constraints on what types of constituents can appear in the CP phase edge and how these constituents are mapped to interpretation in Austronesian languages. This means that predicate-fronting is not driven by lexical features like [V] or [T] and therefore makes the strong prediction that Austronesian VOS word orders should pattern with predicate-initial languages that display no obvious evidence of verb-movement, especially verb-movement into the C domain. One test case to examine is OVS Carib languages, which are predicate-initial but unlike Austronesian languages in most other respects. Most notably, their phrase structure exhibits a clear head-final tendency. Irrespective of this difference, however, what makes these languages particularly interesting to the current topic is that clause-initial position, including the position for the predicate, tends to receive a focus interpretation, while the subject to its right is typically definite (Derbyshire 1985).

References
Cole, Peter and Gabriella Hermon. 2006. VP Raising and the Typology of VOS Languages. ms, University of Delaware.


Pearson, Matthew. 2006. Predicate Fronting and Constituent Order in Malagasy. ms., Reed College.


