Wh-clefts and verb-initial word order in Austronesian languages

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Abstract

Wh-questions are formed on clefts in many Austronesian languages, a fact which is generally assumed to be related to their verb-initial basic word order. What is less clear is the precise relationship between verb-initial word order and the cleft strategy for questions. This paper proposes that the derivation of clefts is parallel to the derivation of basic word order in VOS languages. The absolutive DP is analyzed as a topic and moves to the left periphery of the clause. Following this, the remnant clause is fronted to a higher focus position. I further show how this parallelism accounts for certain distinguishing characteristics of clefts in Austronesian languages.

Keywords: cleft, wh-question, verb-initial word order, predicate-fronting, Austronesian
1. Introduction

It is well known that wh-questions frequently take the form of clefts in a great many Austronesian languages (Georgopoulos 1991; Paul 2000; Pearson 2001; Massam 2003; Aldridge 2004; Potsdam 2006, 2007, 2009; among others). It is also generally agreed that the structure is some type of pseudocleft, in which the focused constituent, i.e. the wh-word, functions as the matrix predicate, while the remainder of the utterance forms a headless relative clause in matrix subject position. (1a) shows a cleft in which a predicate nominal is focused. Since the languages in question are generally verb- or predicate-initial, the focused predicate appears clause-initially. It is followed by the headless relative, which is a bare CP with an absolutive case marker. (1b) shows a wh-cleft in which the wh-word is the matrix predicate.

(1) *Seediq*

a. Rulu [{DP ka [CP b<n>ari=na]}].
   
car  ABS <PERF>buy=3SG.ERG
   ‘What he/she bought is a car.’

b. Maanu [{DP ka [CP b<n>ari=na]}]?
   
whatABS <PERF>buy=3SG.ERG
   ‘What did he/she buy?’
Recent research has attempted to account for *wh*-clefting within a general analysis of basic word order in these languages. Massam (2000, 2001, 2003) and Oda (2002) have proposed that *wh*-movement is generally disallowed in verb-initial languages, because clause-initial position is reserved for predicative material. The proposal is essentially that the EPP feature on T or Infl attracts the predicate in verb-initial languages rather than the DP subject.


Infl has a [Pred] feature and not a [D] feature.

This effectively ensures that these languages have predicate-initial word order and that DPs do not move to clause-initial position. In the derivation of basic word order, the VP is attracted to [Spec, IP].

(3) Niuean (Massam 2001: 157)

a. [VP Tagafaga ika] tumau ni a ia.

    hunt fish always Emph ABS he

    ‘He is always fishing.’
In *wh*-questions, there is no DP *wh*-movement to [Spec, CP]. As evidence, Massam (2003) notes that bare DP *wh*-words cannot appear in clause-initial position but must be preceded by a predicate particle. Rather, *ko* and the *wh*-word form the predicate in [Spec, IP].

(4) *Niuean* (Massam 2003: 97)

\[[IP [Ko hai] [I' [DP [CP ne lalaga e kato e:]]]]?\]

PRED who C weave ABS basket this

‘Who wove this basket?’

The analysis I pursue in this paper shares the fundamental insight of Massam’s approach that the derivation of clefts is parallel to the derivation of VOS basic word order. However, this derivation crucially employs A’-movements into the left periphery. Another point of departure is the motivation I assume for movement of the predicate. It is not the case that a predicate must appear in clause-initial position, but rather the true generalization is that a DP *cannot* occur in this position.
(5) Stranded DP Constraint\(^{1}\) (SDPC)

The highest constituent in the CP phase edge cannot be a DP.

The reader is referred to Aldridge (2004) for detailed discussion and motivation of the SDPC. For reasons of space, I will not attempt a full justification of the constraint in this paper, though I will point out certain phenomena which are accounted for by the SDPC but not necessarily predicted by other approaches to predicate-fronting. One of these is the asymmetry between the two types of Tagalog \textit{wh}-question shown in (6). DP \textit{wh}-phrases must be clefted, as in (6a). But non-DP \textit{wh}-phrases are allowed to move to clause-initial position, as in (6b). Note the absence of an absolutive case marker in (6b), indicating that what follows the \textit{wh}-word is not a relative clause. The fact that the clitic pronoun attaches to the \textit{wh}-word also shows that (6b) is a monoclausal construction. Note in (6a) that the clitic remains in the relative clause, not being able to cross a tensed clause boundary.

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\(^{1}\) I assume that this constraint applies at the point in the derivation at which chains are linearized, meaning that structural relations are still preserved but only the member of a chain to be spelled out overtly will be assessed.
(6) Tagalog

a. **Ano** [DP ang [CP ga-gaw-in=mo]]?
   what ABS FUT-do-TR=2SG.ERG
   ‘What are you going to do?’

b. [CP Saan=siya [TP bi-bili ng bahay tsaan]].
   where=3SG.ABS FUT-buy OBL house
   ‘Where will he/she buy a house?’

The locative *wh*-phrase in (6b) cannot be analyzed as having moved to [Spec, IP] to check the [Pred] feature on Infl, as per Massam’s (2003) proposal. This is because clause-initial focus position in Tagalog is not restricted to main predicates. (7b) shows a focused PP in preverbal position. Note in (7a) that unmarked word order in Tagalog is verb-initial.

(7) Tagalog

a. Bi-bili si Maria ng bahay **sa Maynila**.
   FUT-buy ABS Maria OBL house in Manila
   ‘Maria will buy a house in Manila.’

b. **Sa Maynila** bi-bili si Maria ng bahay.
   in Manila FUT-buy ABS Maria OBL house
   ‘Maria will buy a house *in Manila*.’
These adjuncts cannot be analyzed as occupying the position for the primary predicate, since a PPs in this function must be preceded by a predicativizing prefix na-.

(8) Tagalog

a. *Sa Maynila si Maria.
   in Manila ABS Maria
   ‘Maria is in Manila.’

b. Na-sa Maynila si Maria.
   be-in Manila ABS Maria
   ‘Maria is in Manila.’

I assume that VSO word order in Tagalog is derived through head-movement of the verb to T or an aspectual position above vP (c.f. Richards 2000, Rackowski 2002, Aldridge 2004, 2005, 2008, and Rackowski and Richards 2005). This leaves [Spec, CP] available for movement of an adverb or PP, as in (6b) and (7b). The lack of wh-movement in (6a) is accounted for the by the SDPC, since it prohibits spelling out of the DP wh-phrase in the edge of the CP phase. Therefore, DP wh-questions must be formed on clefts, with the wh-phrase embedded in the matrix predicate.

The derivation of Austronesian clefts I propose in this paper is parallel to the derivation of basic word order in a VOS language. Since the subject
or absolutive argument in a VOS language has a fixed position at the end of the clause, movement of this DP is required in order to obtain basic word order. Recent work on VOS word order in Austronesian languages (Massam 2000, 2001, 2003 for Niuean; Rackowski & Travis 2000, Pearson 2001 for Malagasy; Cole & Hermon 2008 for Toba Batak) has converged on a derivation involving leftward movement of the absolutive DP to a position external to vP or TP, followed by fronting of the remnant predicate or clause. I propose in section 2 that the absolutive moves to a topic position above TP. Subsequently, the remnant TP fronts to a higher position in the C domain. I assume that the SDPC provides the motivation for TP-fronting. Specifically, if TP-fronting did not take place, then the absolutive DP would be spelled out in the highest position in the CP phase edge, thereby violating the SDPC.

(9)

\[
\begin{array}{c}
\text{TP} \\
\text{C'} \\
\text{CP} \\
\end{array}
\]

\[
\begin{array}{c}
\text{DP}_{\text{Abs}} \\
\text{C}_{[\text{EPP}]} \\
\text{t}_{\text{TP}} \\
\end{array}
\]

Section 2 presents arguments from Seediq for the topicalization of the absolutive DP and subsequent fronting of the remnant TP shown in (9). In section 3, I discuss the structure of clefts and show them to be derived in the
same way, by raising the headless relative clause to the topic position in the CP layer, followed by fronting the remnant TP which contains the focused constituent. Section 4 offers some cross-linguistic evidence for the SDPC, which I assume to be the motivation for TP fronting.

2. Basic word order in Seediq

This paper focuses on word order in the VOS language Seediq, an Ataylic language spoken in Taiwan. Seediq has an ergative-absolutive case-marking system. The absolutive DP is optionally marked with the case-marker *ka*, but regardless of the presence of the case-marker, the absolutive obligatorily follows the predicate, yielding VOS word order, with the absolutive in the ‘S’ position. The verb, together with auxiliary verbs indicating tense/aspect and negation, if there are any, occur in clause-initial position. In the transitive example in (10a), the ergative DP immediately follows the verb, with the absolutive DP following the ergative. In the applicative construction in (10b), the applied argument has absolutive status and occurs clause-finally. The ergative argument in this example is a clitic pronoun, attaching to the first prosodic word in the sentence, here the tense auxiliary. (10c) is an antipassive. Intransitive morphology appears on the verb; the
direct object is treated as an oblique; and the external argument has absolutive status and appears in clause-final position.

(10) 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=3SG.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.’

The analysis of absolutive-final word order is spelled out below. In essence, the absolutive DP moves to a topic position above TP. This movement is followed by fronting of the remnant TP to a higher specifier in the C domain. Absolutive movement is triggered by EPP features on transitive v and C. C also has a [T] feature, which could be satisfied by T-to-C head movement or by remnant TP fronting. The choice is determined by the SDPC. If head movement were to take place, the absolutive DP would be stranded in the edge of CP. Therefore, TP fronting is required in order to prevent the derivation from crashing.
Let me also elaborate further on the movement of the absolutive. Topicalization of the absolutive involves first movement to the edge of \( vP \). Aldridge (2004, 2005, 2008) has argued that transitive \( v \) has an EPP feature which draws the absolutive internal argument to the edge of the \( vP \) phase,
from which position it can undergo further movement, e.g. topicalization in VOS ergative languages like Seediq.

(12) *Transitivity and EPP*

\[v_{Tr}: \ [D] \text{ feature}\]

\[v_{Intr}: \ \text{No} \ [D] \text{ feature}\]

Raising to the outer specifier of \(v\) also allows the object DP to check absolutive case with T. Ergative case is inherent, assigned by transitive \(v\) to its specifier.\(^2\)

(13)

```
TP
  \(T_{Abs}\)
    \(vP\)
      \(DP_{Abs}\)
        \(v'\)
          \(DP_{Erg}\)
            \(v\)
              \(v_{D*}\)
                \(VP\)
                  \(V\)
                    \(t_{Abs}\)
```

Furthermore, the ergative DP, which is located in a lower specifier of \(vP\), will not be attracted to [Spec, CP] over the absolutive DP in the outer

specifier of vP, assuming that this feature enters into an Agree relation with the closest matching element in its c-command domain.³

This analysis of movement of the absolutive DP also accounts for the following restriction in Austronesian languages, in which only absolutes are eligible to undergo A’-extraction.⁴ Since transitive v has an EPP feature which attracts the absolutive DP in (14a) to its outer specifier, this DP can be further attracted to the specifier of CP. But the ergative DP will always be blocked from moving in transitive clauses.

(14) a. sapah b<n>ari na tama
    house TR<PERF>buy ERG father
    ‘house which Father bought’

    b. *seediq b<n>ari sapah
    person TR<PERF>buy house.ABS
    ‘person who built the house’

³ The fact that the ergative DP does not move over the absolutive would be surprising if we were to assume that both specifiers of vP are equidistant from C. However, there is a recent trend away from the notion of equidistance (Fox and Pesetsky, 2005; 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.

⁴ This is the well-known subject or topic restriction on A’-movement in Austronesian languages. Accordingly, numerous disparate analyses have been proposed to account for this fact in a variety of Austronesian languages (Schacter & Otanes 1972, Richards 2000, Rackowski 2002 for Tagalog; Holmer 1996, Chang 1997 for Seediq; Keenan 1976, Pearson 2001 for Malagasy; Chung 1994, 1998 for Chamorro; Georgopoulous 1991 for Palauan; among many others). The approach proposed in this paper, however, suggests a uniform account of this phenomenon across languages, though development of this cross-linguistic mechanism is beyond the scope of this paper.
2.1 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. Initial evidence is provided by structural relations. In Seediq, only absolutes in antipassives can antecede reflexives. Recall that antipassives are a type of intransitive, meaning that the external argument has absolutive status. (15) shows that the agent absolutive in an antipassive can bind a benefactive reflexive. This is accounted for on the current analysis, since the external argument c-commands the reflexive in VP. Since antipassive v is intransitive, it does not have an EPP feature, so the internal argument never raises out of VP. Assuming cyclic, phase-based application of Binding Principle A (Lee-Schoenfeld 2008, Quicoli 2008, and others), binding is established in the vP phase. In subsequent phases, no other Binding Principles are violated, since the reflexive will never c-command the intended antecedent, so the derivation converges.

(15) a. Wada=nak m-ari rulu ka Ape.
    PAST=REFL INTR-buy car ABS Ape
    ‘Ape bought herself a car.’
The transitive version of (15) 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 DP c-commands the reflexive, satisfying Condition A. However, c-command relations will be reversed when the absolutive DP moves out of its base position to the outer specifier of \( v \). In this position, the absolutive reflexive c-commands and binds the intended antecedent, invoking a Condition C violation\(^5\).

\[(16)\]

   PAST=REFL.ABS APP-buy car ERG Ape
   ‘Ape bought herself a car.’

\(^5\) Hoji (1985), Tada (1993), Oka (1996), Takano (1997), McGinnis (1999), and others have shown that short scrambling in Japanese also alters binding relations.
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, as in (17a). This is because the object remains in VP, where it is c-commanded by negation, while the external argument values absolutive case and moves to [Spec, CP]. However, Neg does not license an absolutive NPI, as in (17b), indicating that absolutes move out of the c-command domain of negtion.

(17) a. [TP Wada ini bari animumaanu] ka Ape.
    PAST NEG buy anything ABS Ape
    ‘Ape didn’t buy anything.’

b. *[TP Ini burig-i na Ape ]
    NEG buy-TR.IRR ERG Ape
ka animumaanu.

ABS anything

‘Ape didn’t buy anything.’

Next, I examine clitic doubling. In (18a, b), the absolutive yaku is resumed by clitic pronouns in second position in TP.

(18) a. [TP Gaga=ku=daha ngal-un] ka yaku duri.
   PRES=1.SG.ABS=3.PL choose-TR ABS 1.SG even
   ‘They have chosen even me.’

   b. [TP M-usa=ku mu-huma kyuuri=na]
   INTR-go=1.SG.ABS INTR-plant cucumber=3.SG.GEN
   ka yaku.
   ABS 1.SG
   ‘I went to plant his cucumbers.’

Chang (1997) proposes that these clitics register agreement with a TP-internal absolutive. However there is evidence that arguments doubled by are not positioned internal to TP. This can be seen in the behavior of ergative clitics. In (19a), a clitic pronoun functions as the ergative argument. However, when a full DP ergative argument occurs in [Spec, vP], it cannot be resumed by a clitic pronoun, as shown in (19b).
(19)  a. \[ \text{TP Wada}=\text{na} \quad \text{biq-un} \quad \text{hulama} \quad \text{laqi} \]
\[ \text{PAST}=3.\text{SG.ERG} \quad \text{give-TR} \quad \text{treat} \quad \text{child.ABS} \]
‘He/she gave the child a treat.’

b. \[ \text{TP Wada}(*=\text{na}) \quad \text{burig-un} \quad \text{na Ape} \quad \text{ka patis-ni}. \]
\[ \text{PAST}(=3.\text{SG.ERG}) \quad \text{buy-TR} \quad \text{ERG Ape ABS book-DEM} \]
‘Ape bought this book.’

This suggests indirectly that the absolutive DPs in (18) are also located in TP-external positions.

Coordination also provides evidence that absolutes move out of TP. Clauses can be coordinated to the exclusion of the absolutive DP. In (20a) the ATB extracted DP is an internal argument in transitive clauses. (20b) conjoins an intransitive and an antipassive, in which the extracted absolutive is an external argument.

(20)  a. \[ \text{TP S-bari}=\text{na} \quad \text{t}_{\text{abs}} \quad \text{hulama} \quad \text{ma} \]
\[ \text{APP-buy}=3.\text{SG.ERG} \quad \text{treat} \quad \text{and} \]
\[ \text{TP s-smalu}=\text{na} \quad \text{t}_{\text{abs}} \quad \text{lukus} \quad \text{dungan} \]
\[ \text{APP-make}=3.\text{SG.ERG} \quad \text{clothes} \quad \text{also} \]
ka  laqi=na.

ABS  child=3.SG.GEN

‘She buys a treat for and also makes clothes for her child.’

b.  [TP  M-usa  \text{\textit{t}}_{\text{\textit{abs}}}  Purishia]  [TP  m-ari  \text{\textit{t}}_{\text{\textit{abs}}}  sama]  ka  \textbf{Ape}.

INTR-go  Puli  INTR.buy vegetable ABS Ape

‘Ape went to Puli and bought vegetables.’

Additional evidence for movement of the absolutive comes from information structure. In a typical declarative clause in Seediq, new or focused information tends to appear first in the clause, inside the predicate, while definite material follows, generally in the form of the absolutive DP in clause-final position. Consequently, non-absolutive internal arguments, e.g. obliques in antipassives, surface in immediate post-verbal position and tend to be indefinite, while absolutive DPs must be definite or generic. For example, the antipassive in (21a) is used to introduce \textit{qushia mutaso} “clean water”, where it has oblique status and appears immediately following the verb. In (21b), where this DP represents old information, it has absolutive status, while the DP representing new information \textit{lukus} “clothes” immediately follows the verb.

(21)  a.  M<\text{n>oda  m-ari  \textbf{qushia mutaso}  Hori

INTR<PERF>go  INTR-buy water clean  Puli
ka Ape.

ABS Ape

‘Ape went to Puli to buy clean water.’

b. Wada=na s-pahu lukus ka **qushia mutaso**.

PAST=3.SG.ERG APP-wash clothes ABS water clean

‘She washed clothes with the clean water.’

A final related asymmetry is that observed between strong and weakly quantified DPs. Strongly quantified DPs tend to be given absolutive status, as in (22a). On the other hand, weakly quantified DPs cannot appear in absolutive position (22c). If they appear in situ in the clause, they must have oblique status, e.g. as the object of an antipassive verb (22b).

(22) a. Wada=na burig-un **kanna patis**.

PAST=3.SG.ERG buy-TR all book.ABS

‘He/she bought all the books.’

b. Wada m-ari **egu nashi** ka Awe-ni.

PAST INTR-buy many pear Abs Awe-DEF

‘Awe bought a lot of pears.’

c.?*Wada=na burig-un **egu nashi**.

PAST=3.SG.ERG buy-TR many pear.ABS

‘He/she bought a lot of pears.’
Building on work by Milsark (1974), Diesing (1992) proposes that strong quantifiers, but not necessarily weak quantifiers, presuppose the existence of the entities they are applied to. This dichotomy is captured easily in the current analysis. Strongly quantified DPs move into topic position, where they will be mapped onto the presupposition, while weakly quantified DPs are contained inside the predicate and are mapped to the focused – or nonpresupposed – part of the clause. Therefore, it can be concluded that absolutives must reside in a position where they receive a presuppositional interpretation, such as a topic position outside TP.

2.2 Evidence for predicate-fronting

The previous subsection showed that the absolutive DP moves to a topic position in the C domain. Following this, the remnant TP also fronts, which I assume to be indirectly motivated by the SDPC. In this subsection, I offer evidence that phrasal TP-fronting takes place. First, let us consider a possible alternative analysis of VOS word order involving rightward movement of the absolutive along the lines of Holmer (1996) and Chang (1997), based on Guilfoyle et al. (1992). On this approach, transitive clauses are treated as a kind of passive, in which the absolutive moves to an A-position in order to be case-licensed.
This analysis faces at least one serious empirical challenge, even if we ignore the obvious theoretical problem of allowing the internal argument to undergo A-movement over the external argument to [Spec, AgrP]. Recall from section 1 that adjunct \textit{wh}-phrases are able to front in Tagalog. Tagalog is a VSO language in which basic word order is generated by head-movement of the verb to a position above \textit{vP}. The TP is therefore not expected to be an island to extraction, accounting for the extractability of adjuncts.
A key difference between the TP-fronting approach and the rightward movement approach is that the fronted TP in the former is predicted to be an island to extraction (based on the ‘freezing effect’ of Wexler and Culicover 1980 or the Condition on Extraction Domain of Huang 1982⁶), while this is not the case in the latter approach. We have already seen in (14) above that

⁶ See Nunes and Uriagereka (2000), Stepanovic (2007), and others for more recent approaches to CED effects.
absolutive DPs can undergo A’-movement, while other DP arguments cannot. Adjuncts are also unable to front, as shown in (25). On the TP-fronting account, all clause-internal material except the absolutive is contained within TP and therefore frozen in place after TP-fronting.

(25) *Seediq*

a. M<n>ari inu patis Ape?

INTR<PERF>buy where book Ape

‘Where did Ape buy books?’

b. *Inui m<n>ari ti patis Ape?

where INTR<PERF>buy book Ape

c.

```
  CP
     /\    
    /  \   
   TP   C'
       /\  
      /  \ 
     C'  Ape
          /\  
         /  \ 
        C[D*]  t_{TP}
```

To summarize the discussion in section 2, VOS word order in Seediq is derived by movement of the absolutive to a topic position in the C domain. The remnant TP then fronts to its left, forming an island to extraction, which prevents TP-internal material7 from moving to clause-initial position.

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7 Time adverbs are allowed to appear in clause-initial position. I assume that these can be merged high, presumably adjoined to TP.
3. Structure of Wh-Clefts

In this section, I discuss the structure of wh-cLEFTS in Austronesian languages. A wh-question in which the wh-phrase is a DP has to take the form of a cleft, which is a natural consequence of the derivation of basic word order developed in section 2. To review that derivation, first recall that absolutive DPs are always topicalized or presupposed, while new information is contained inside the fronted TP.

(26)  Seediq

a.  [TP M<n>oda  m-ari qushia mutaso]
   INTR<PERF>go  INTR-buy water  clean
   Hori]   ka   Ape.
   Puli   ABS   Ape

   ‘Ape went to Puli to buy clean water.’

b.  [TP Wada=na  s-pahu lukus ]
   PAST=3.SG.ERG APP-wash clothes
   ka   qushia   mutaso.
   ABS   water   clean

   ‘She washed clothes with the clean water.’
This can be accounted for straightforwardly by assuming that the position in the CP layer which the absolutive DP moves to is a low topic position (in the sense of Rizzi 1997). The head which carries the [T] feature to attract the remnant TP is a focus position above the landing site for the absolutive. The SDPC will ensure that the phrasal TP will be attracted rather than just the T head.

\[
(27) \quad \text{FocP} = \text{CP} \\
\quad \text{TP} \quad \text{Foc'} \\
\quad \text{Foc}_{[T^*]} \quad \text{TopP} \\
\quad \text{DP} \quad \text{Top'} \\
\quad \text{Top}_{[D^*]} \quad \text{t}_\text{TP}
\]

In regard to \textit{wh}-questions, if a DP \textit{wh}-phrase were to move to the left periphery, it would target the topic position in order to check the [D] feature there, since Foc carries a [T] feature. However, this would result in an anomalous interpretation, since \textit{wh}-phrases are inherently focused. Interestingly, \textit{wh}-phrases are indeed barred from absolutive position in VOS (as well as many SVO) Austronesian languages. Chang (1997) cites evidence from Seediq. See also Sabel (2003), Cole et al. (2005), Potsdam (2006), and others for discussion of a similar constraint in other Austronesian languages.
(28)  *Seediq* (Chang 1997: 146)

a.  **ima** (ka)  \[CP Op [TP s\(<m'>ebut\ t_{op}\ laqi ]\]

   who ABS <INTR>hit child

   ‘Who hits a child?’

b.  *s\(<m'>ebut\ laqi ka ima?*

   <INTR>hit child ABS who

   ‘Who hits a child?’

This problem is circumvented, however, if DP *wh*-questions are formed as clefts. The headless relative clause in this case checks absolutive case and moves to the topic position. The focused constituent is contained inside the fronted TP, which moves to [Spec, FocP].

(29)  *Seediq*

a.  **Maanu ka b\(<n'>ari=na?**

   what ABS <PERF>buy=3.SG.ERG

   ‘What did she buy?’
In the remainder of this section, I present evidence in favor of the derivation of *wh*-clefts sketched above. First I consider evidence that the constituent following the absolutive case marker is a headless relative clause. (30) is a predicational copula construction in which the headless relative `bnari na` (‘what he/she bought’) is the subject predicated of `malu uqun` ‘taste good’. This indicates that a bare CP preceded by the absolutive case-marker can appear in nominal argument position.

(30)  *Seediq*

Malu uqun  [DP ka [CP b<n>ari=na]].

good eat  ABS  <PERF>buy=3.SG.ERG

‘What he/she bought tastes good.’
Aldridge (2002, 2004) argues for the biclausal status of DP wh-questions in Tagalog and Seediq on the basis of positional restrictions on pronominal clitics. As in Tagalog, pronominal clitics in Seediq attach to the first prosodic word within CP. In (31), a clitic raises to the question particle yo, which I assume to be located in the C domain. Clitics, then, should be able to raise into the CP layer of the clause.

(31) **Seediq**

\[
\begin{align*}
\text{[CP [C' Yo=\textbf{su}i [TP kula-un} & \text{ ti} \\
\text{Q=2.SG.ERG know-TR} & \\
\text{[DP seedaq [m<n>huma bulebun-ni]]]?} & \\
\text{person INTR<PERF>plant banana-DEM} & \\
\text{‘Do you know the person who planted these bananas?’}
\end{align*}
\]

In a cleft, however, the clitic has to stay below the predicate nominal and absolutive case-marker which follows it. In (32), the 3rd person Seediq ergative clitic attaches to the tense auxiliary. This clitic cannot move up to attach to the wh-word or the absolutive case marker.
Clitic placement can be accounted for if we assume that the clitic attaches to the highest head within the embedded CP, which is the auxiliary wada. The operator in [Spec, CP] is phonetically null and so cannot host a clitic.
The preceding discussion has argued that DP \textit{wh}-questions in Seediq are biclausal, containing a headless relative clause, as is expected of pseudo-clefts. Next I show that the \textit{wh}-word forms part of the predicate, which is contained in the fronted remnant TP. This is by no means an uncontroversial claim when the structure of clefts is considered cross-linguistically. For English clefts, for example, some treat the relative clause as the subject (Boskovic 1997), while others take the focused constituent to be the subject (Williams 1983, 1994; Heggie 1988; Den Dikken 2006, this volume; and others). Here, I argue for the traditional view of Austronesian clefts, specifically, that the focus must be part of the predicate and crucially is not the subject.

Following Paul (2000) for Malagasy, Aldridge (2004) shows that the focused part of a cleft can be negated in Tagalog. (34a) shows that the negator generally precedes a verbal predicate. (34b) shows that the same negator can precede the clefted constituent.

(34) \textit{Tagalog}

   a. \textbf{Hindi} p\textless um\textgreater unta si Maria sa Maynila.

     NEG <INTR.PERF>go ABS Maria to Manila

     ‘Maria didn’t go to Manila.’
b. [Hindi si Maria] ang p<um>unta sa Maynila.
   NEG Abs Maria ABS <INTR.PERF>go to Manila
   ‘It wasn’t Maria who went to Manila.’

(35b) shows that a modal auxiliary appears before the clefted constituent. (35a) shows this modal selecting a verbal predicate.

(35) Malagasy (Potsdam 2006)
   a. tokony hamangy an-dRabe Rasoa
      should visit ACC-Rabe Rasoa
      ‘Rasoa should visit Rabe.’ (p. 2165)
   b. [tokony Rasoa] no hamangy an-dRabe
      should Rasoa PART visit ACC-dRabe
      ‘It should be Rasoa who visits Rabe?’ (p. 2170)

It has also frequently been pointed out that post-predicate particles can follow clefted constituents (Cole et al., to appear; Pearson 2001; Massam 2003; Potsdam 2009; Kroeger 2009; and others). (36) shows that the particle tale ‘again’ can follow the predicate it modifies but not the subject.
(36)  *Fijian* (Potsdam 2009: 765)

a.  `[e na lagasere] tale o Pita

   3SG.SUBJ FUT sing again D Peter

   ‘Peter will sing again.’

b.  *[e na lagasere] o Pita tale

   3SG.SUBJ FUT sing D Peter again

   ‘Peter will sing again.’

In the clefts in (37), this particle can follow either the embedded predicate or the clefted constituent. The fact that the particle can modify the clefted phrases shows that this constituent must be a predicate and not a subject.

(37)  *Fijian* (Potsdam 2009: 765)

a.  `[o cei] [[e na lagasere] tale]

   D who 3SG.SUBJ FUT sing again

   ‘Who will sing again?’

b.  `[o cei] tale e na lagasere

   D who again 3SG.SUBJ FUT sing

   ‘Who else will sing?’

Similarly, in Seediq, the absolutive case marker always appears between the fronted TP and the absolutive DP. It is not possible for the case marker
to precede the focused constituent, in a monoclausal construction, as in (38a), or in a cleft, as in (38b).

(38)  

\begin{enumerate}
\item \textit{Seediq}  
\begin{enumerate}
\item (*ka) malu uqun  \text{[DP ka [CP b<n>ari=na]].}
\end{enumerate}
\end{enumerate}

\begin{itemize}
\item ABS good eat \hspace{1cm} \begin{itemize}
\item ABS <PERF>buy=3.SG.ERG
\end{itemize}
\end{itemize}

‘What he/she bought tastes good.’

\item (*ka) bulebun ka b<n>ari=na.
\end{enumerate}

\begin{itemize}
\item ABS banana \hspace{1cm} \begin{itemize}
\item ABS <PERF>buy=3.SG.ERG
\end{itemize}
\end{itemize}

‘What he/she bought was a/the banana.’

The facts in (34) to (38) show that the focused constituent in a cleft occurs with particles, negation, and modals, all elements which typically occur with predicates and, crucially, not with subjects. These facts also suggest that the clause-initial constituent contains more material than just the nuclear predicate. Specifically, there must be positions for negation and an auxiliary verb, which is accounted for on the TP-fronting analysis, since these elements will be pied-piped with the remnant clause when it moves to [Spec, FocP].

Another characteristic of Austronesian clefts accounted for on the TP-fronting analysis is the lack of reversibility. English specificational
Pseudoclefts are known to be reversible, i.e. the focus and clause can appear in either order.

(39)  
(a) *Proud* is what John is. (Pseudocleft)  
(b) What John is is *proud*. (Inverse pseudocleft)

The general approach to this alternation is to analyze the clause as moving to a position above the focus. In the pseudocleft, the focus moves from an embedded small clause to \([\text{Spec, IP}]\) subject position (Heggie 1988, Moro 1997, and den Dikken 2006), as in (40a). In the inverse pseudocleft, the clause moves to either the subject \([\text{Spec, IP}]\) position (Moro 1997, den Dikken 2006), as in (40b), or to \([\text{Spec, CP}]\) (Heggie 1988), as in (40c).

(40)  
(a) \([\text{IP } \text{Proud} \ [\text{VP } \text{is} [\text{SC } t \ [\text{what John is}]])]]\)  
(b) \([\text{IP } \text{what John is } \text{is} [\text{SC proud } t ])]\)  
(c) \([\text{CP3 } \text{what John is}_j \text{is} [\text{IP } \text{proud}_i \text{[VP } \text{is} \text{[CP2 } t_i \ t_j \ ]]}\)  

I assume that the availability of landing sites in either \([\text{Spec, IP}]\) or \([\text{Spec, CP}]\) is what accounts for the reversability. In contrast to this, specificational copula constructions are not reversible in the Austronesian languages which I am familiar with. If the order of the major constituents is
reversed, the information structure is also reversed. Since I have no relevant examples in my Seediq corpus, I use Tagalog examples for illustration.

(41) **Tagalog**

a. [Ang lalaki] ang na-kita ng babae.

   ABS man ABS PERF-see ERG woman

   ‘It is the man that the woman saw.’

b. [Ang na-kita ng babae] ang lalaki.

   ABS PERF-see ERG woman ABS man

   ‘It the one that the woman saw which is the man.’

What is important to note here is that the initial constituent must be focused. This falls out naturally in the analysis in (29b), since the clause will be attracted to [Spec, TopP], while the focus will be contained within the remnant TP moving above this position. Since both of these constituents already occupy the positions in the left periphery where they will be interpreted, there are no other potential landing sites for further movement which would change the word order, while maintaining the interpretation.

Let me note here also that Massam’s (2003) analysis does not seem to make the correct prediction for reversibility in Austronesian clefts, since the focused constituent checks the [Pred] feature on Infl, while [Spec, CP]
remains vacant. Given Heggie’s (1988) analysis of English, I do not see how the clause could be prevented from moving to [Spec, CP].

(42)  

    Tagalog

    a. [Ang lalaki] ang na-kita ng babae.

        ABS    man    ABS    PERF-see    ERG    woman

        ‘It is the man that the woman saw.’

    b.          
        CP
            C’
              C      IP
                  PredP    i’
                      vP
                          t_PredP
                            Op, \ldots t_i

    Thus, my postulation that movements in the derivation of clefts target the CP layer accounts for the lack of reversibility in Tagalog. I have no empirical evidence regarding the reversibility of clefts in Niuean, but there is evidence that that predicate-fronting in this language also accesses the left periphery. (43a) shows that the fronted predicate precedes the yes/no question particle. (43b) shows that an adjunct wh-phrase is pied-piped along
with the fronted predicate, presumably to the position where a [wh] can be checked. Note that (43b) is not simply a case of wh-in-situ, since a non-interrogative locative phrase cannot be pied-piped with the fronted predicate, as shown in (43c).

(43) Niuean

a. [Manako manu] nakai a koe?
   like animal Q Abs you
   ‘Do you like animals?’ (Massam 2001: 180)

b. [Totou he mena fe: e Mele e pepa?]
   Read Loc thing which Erg Mele Abs paper
   ‘Where did Mary read the book?’ (Massam 2003)

c. *[Totou he peito e Mele e pepa?]
   Read Loc kitchen Erg Mele Abs paper
   ‘Mary read the book in the kitchen’ (Massam 2003)

Recall further that the VSO language Tagalog, which does not employ movements to the left periphery in basic word order derivation, does allow adjunct wh-phrases to move to preverbal position. Since the verb raises only as far as T, the wh-phrase is able to move to [Spec, FocP] and precede the verb in surface order.
(44)  *Tagalog*

a. Bi-bili si Maria ng bahay sa Maynila.

FUT-buy ABS Maria OBL house in Manila

‘Maria will buy a house in Manila.’

b. Saan bi-bili si Maria ng bahay.

where FUT-buy ABS Maria OBL house

‘Where will Maria buy a house?’

This asymmetry between Tagalog and Niuean suggests that the predicate does move to the left periphery in the latter, while the verb remains in TP in the former.

However, Tagalog, like Seediq and Niuean, does employ the cleft strategy when the *wh*-phrase is a DP, as discussed in section 1. As also mention in section 1, this suggests a role for the SDPC in the derivation of *wh*-questions. Specifically, Tagalog is not a VOS predicate (or TP) fronting language like Seediq and Niuean in declarative clauses. Therefore, we cannot say that *wh*-questions in Tagalog are clefts because TP is always attracted to the left periphery. Rather, the true generalization is that the SDPC forces TP-fronting if and when a DP moves to [Spec, TopP]. In Tagalog, this happens in a cleft because the interpretation forces the presupposed relative clause to move to the left periphery. Thus, Tagalog is a counterexample to Potsdam’s (2009) proposal that *wh*-clefts are found in
languages whose basic word order is generated through predicate-fronting. Hermon (2009) further points out that the SVO language Indonesian also employs the cleft strategy but is not otherwise a predicate-fronting language.

To summarize this section, I have argued that the derivation of clefts in Seediq and other Austronesian languages is parallel to the derivation of predicate-initial word order in VOS languages. The headless relative clause functions as the matrix subject (absolutive) and moves to a topic position in the left periphery. The focused constituent is pied-piped within the remnant TP to a focus position above the absolutive. This analysis accounts for two additional distinguishing characteristics of Austronesian clefts. TP-fronting ensures that the focused constituent is located within the surface predicate, rather than in subject position. Furthermore, since the movements involved in the derivation target the left periphery, hence serving to place the surface subject and predicate in the positions where they will be interpreted, Austronesian clefts are not reversible.
4. Evidence for the Stranded DP Constraint

Throughout this paper, I have suggested that the SDPC forces TP-fronting when a DP is moved to the left periphery of a clause. In this section, I provide supporting evidence for the SDPC.

In (28b) in section 3, I showed that *wh*-phrases are generally disfavored in absolutive position in VOS Austronesian languages. This is expected under the analysis presented here, since absolutives move to a topic position. A problem, then, is introduced by the Malagasy construction in (45a). This is a multiple *wh*-question in which a DP *wh*-phrase appears in the left periphery of the clause. Multiple *wh*-fronting is a subtype of the construction first identified by Keenan (1976) as the ‘bodyguard’ construction. When a DP appears in the left periphery of the clause, it must be preceded by a second constituent, in this case an adjunct *wh*-phrase. The DP cannot precede the adjunct.

(45) *Malagasy* (Sabel 2003)

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?’

Two DP wh-phrases likewise cannot be fronted.

(46)  Malagasy (Sabel 2003)

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?’

The generalization, then, is that a DP can move to the left periphery only if it is preceded in surface order by a non-DP. This sensitivity to the category of the clause-initial constituent is readily accounted for by the SDPC. When a DP is moved to the left periphery, another XP of a different category is also required to be fronted. Note further that that the DP wh-phrase must be D-linked, in the sense of Pesetsky (1987) (Paul 2000). In other words, a sentence like (45a) 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). This interpretive restriction falls out on the analysis in which the DP \textit{wh}-phrase moves to [Spec, TopP], while the adjunct is located in the higher [Spec, FocP].

\begin{center}
\begin{tikzpicture}
\node (FocP) at (0,0) {FocP=CP};
\node (PP) at (-1,1) {PP (focus)};\node (Foc) at (-1,2) {Foc};\node (TopP) at (1,2) {TopP};
\node (DP) at (-1,3) {DP (topic)};\node (Top) at (1,3) {Top'};
\node (EPP) at (0,4) {Top_{EPP}};\node (TP) at (2,4) {t_{TP}};
\draw (FocP) -- (PP);\draw (FocP) -- (Foc);\draw (FocP) -- (TopP);
\draw (PP) -- (Foc);\draw (Foc) -- (TopP);\draw (TopP) -- (DP);\draw (TopP) -- (Top);\draw (Top) -- (EPP);\draw (EPP) -- (TP);
\end{tikzpicture}
\end{center}

(47)

5. Conclusion

This paper has proposed an analysis of cleft constructions in Austronesian languages which is parallel to VOS basic word order derivation. The absolutive DP moves to a topic position in the left periphery, followed by fronting of the remnant TP to a focus position above the topic. This analysis accounts for key characteristics of Austronesian clefts, specifically the fact that the focus is contained within the fronted predicate and the fact that Austronesian clefts are not reversible. I have suggested that the requirement that DP \textit{wh}-questions take the form of clefts is related to a prohibition on stranding a DP in the left edge of CP. Although motivation for this Stranded
DP Constraint has not been the specific focus of this paper, I have shown how it can provide a uniform account for a broad range wh-constructions found in Austronesian languages.

References


