EXTRACTION ASYMMETRIES IN ERGATIVE AND ACCUSATIVE LANGUAGES

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1 Introduction

This paper proposes an analysis of the constraint found in many languages whereby only the DP with nominative case is able to undergo movement operations. This constraint is particularly well-known in languages with ergative alignment. I illustrate this restriction with the Tagalog examples below. The examples in (1) show the ergative alignment in Tagalog. Absolutive (nominative) case appears on the intransitive subject in (1a) and the transitive object in (1b).

(1) a. D<**um**>ating   *ang*   *babae*.
         <INTR.PRV>arrive NOM/ABS   woman
         'The woman arrived.'

   b. B<**in**>ili   ng   babae   *ang*   *isda*.
         <TR.PRV>buy GEN/ERG   woman   NOM/ABS   fish
         'The woman bought the fish.'

The examples in (2) show that only the nominative DP in Tagalog can undergo movement, as in relative clause formation. The transitive object and intransitive subject can be extracted, as shown in (2a, b). But the transitive subject cannot be moved, as in (2c).

(2) a. isda-ng   b<in>ili   ng   babae
         fish-LK   <TR.PRV>buy GEN   woman
         'fish that the woman bought'

   b. babae-ng   d<um>ating
         woman-LK   <INTR.PRV>-arrive
         'woman who arrived'

   c. *babae-ng   b<in>ili   ang   isda
         woman-LK   <TR.PRV>buy NOM   fish
         'woman who bought the fish'

In this paper, I correlate extraction in this (and other syntactically ergative) languages directly with structural case licensing.[1] Working within the C-T Inheritance framework of Chomsky (2008), I propose that in the languages in question, DPs move directly to the edge of the CP phase in order to value nominative case. Consequently, movement of the nominative DP is free, but other DPs will not be able to access [Spec, CP], because this position is needed in order to license the nominative argument.

The proposal that DPs move to [Spec, CP] to value nominative case further entails the lack of an A/A' partition in these languages. I substantiate this claim by showing that features generally assumed to drive A'-movement, e.g. *wh*-features, are not found in the languages I consider in this paper. Finally, I show that the extraction restriction is not limited to languages with ergative alignment but is found in accusative languages as well. In these languages, it is the nominative subject which has the privilege of free extraction.

2   The Extraction Restriction in an Ergative Language

In this section, I propose my analysis of the extraction restriction and show how it accounts for the facts in Tagalog.

2.1   Theoretical Background

In the C-T Inheritance framework of Chomsky (2008), the features responsible for licensing nominative arguments are not inherent to T but rather are inherited by T from C. In particular, C passes [$u\phi$] to T, which licenses the subject and attracts it to the [Spec, TP] subject position. If C has a feature driving A'-movement like a [uWH] feature, this is retained by C, allowing movement over the subject in [Spec, TP] if the clause contains an XP with a matching [WH] feature, as in the case of object *wh*-movement.

(3) a.   What did you buy?
    b.   [CP *what* [C$_{[u\text{WH}]}$ [TP *you*$_{[\phi, \text{NOM}]}$ [T$_{[u\phi]}$ [*v*P *what* [*v'* *you* [*v'* *v* [VP *buy* *what*]]]]]]]]

Chomsky (2008) assumes that C-T inheritance takes place universally, but others have argued that there are conditions under which it is obviated (Ouali 2006; Gallego 2014; Legate 2014; Martinović 2015; van Urk 2015; Erlewine 2016; Aldridge, to appear). I propose that the universal default is for inheritance not to take place and that it is only forced by the presence of an uninterpretable feature on C. This is because uninterpretable – particularly unvalued –

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features must be spelled out as soon as they are valued and consequently must be passed to the domain of the phase head, as proposed by Richards (2007, 2012). This is why unvalued ϕ-features in English must be passed to T, so that they are spelled out in the domain of C as soon as they are valued.

(4)   Condition on feature inheritance
        Uninterpretable features must be inherited by a non-phase head.

But in languages which do not have subject/verb agreement, there is no reason a priori to assume that nominative case is the product of valuing a [$u\phi$] feature. I adopt Saito's (2016)[2] proposal that licensing of DPs involves only valuing the case feature on the DP itself, but there are no unvalued features on the licensing head. On my proposal, then, since there is no unvalued probe on C which must be inherited by a lower head, then DP movement targets the highest specifier in the CP layer.

2.2   Analysis of Syntactic Ergativity

As summarized in section 1, only the DP which values nominative case in Tagalog and other syntactically ergative languages is able to undergo movement. In a transitive clause, this is the direct object. I assume with Woolford (1997, 2006), Legate (2002, 2008), Mahajan (1989), and others that ergative is inherent case assigned by transitive *v* to its specifier. Aldridge (2004, 2008) specifically limits the availability of ergative case to transitive *v*. Since the external argument values inherent case, it has no motivation to move, but the object does need to value case, and it can do so by moving to [Spec, CP].[3] I follow Boščović's (2007) proposal that DPs with unvalued case features undergo agnostic movement to a position where they can value that feature. In a declarative clause, the object will be spelled out with the nominative case marker in its base position in VP[4], as in (5a). When extraction takes place, the object will surface in the landing site in [Spec, CP], as in (5b). The ergative DP is unable to move, as shown in (5c). This can be accounted for in two ways. First, the ergative DP does not need to move, since it has already valued its case feature.[5] Furthermore, the landing site is unavailable, since it is needed to license the object.
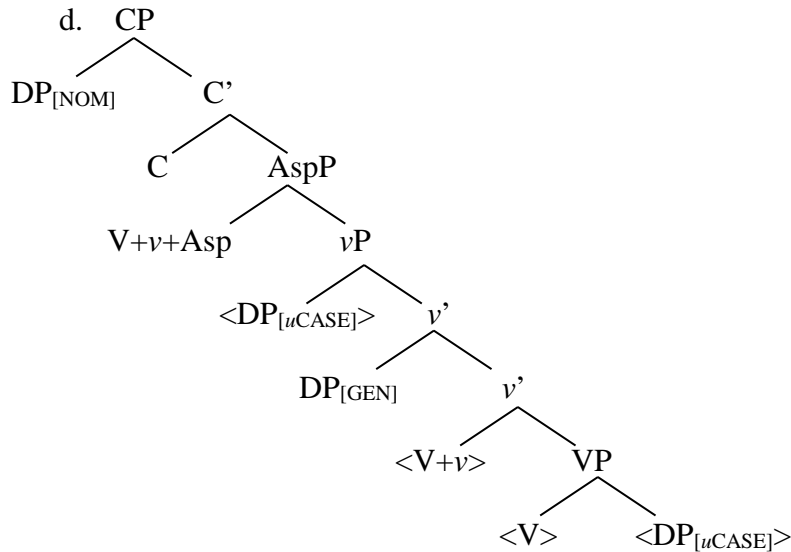
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[2] Saito's proposal is in turn based partly on Boščović (2007).

[3] Aldridge (2004, 2008) argues that absolutives in transitive clauses value case with *v* and not with C. On the analysis proposed here, then, the relevant phase head for locality is *v* and not C in languages of this type. Regardless of whether absolutive case is valued by C or *v*, the ergative external argument is unable to move, because its case feature has already been valued. In order to keep the exposition simple and highlight the parallelism between the ergative and accusative languages under consideration in this paper, I illustrate my proposal using CP rather than *v*P.

[4] See Aldridge (2004, 2008) for arguments that absolutive objects in Tagalog undergo covert movement at least as far as [Spec, *v*P]. Rackowski (2002) and Rackowski and Richards (2005) have proposed similar accounts for Tagalog. Richards (2000) claims that Tagalog absolutives move as high as [Spec, CP], where they are interpreted as topics.

[5] Polinsky (2016) also draws a connection between the absolutive extraction restriction and the inability of ergative arguments to undergo movement in certain ergative languages, proposing that the nature of ergative case in these languages freezes the argument in its base position. However, this approach does not carry over to accusative languages which also have the extraction restriction but do not license external arguments with inherent case in finite root clauses.

(5)   a. B<in>ili   ng   babae   ang   isda.
          <TR.PRV>buy   GEN   woman   NOM   fish
          'The woman bought the fish.'
      b. isda-ng   b<in>ili   ng   babae
          fish-LK   <TR.PRV>buy   GEN   woman
          'fish that the woman bought'
      c. *babae-ng   b<in>ili   ang   isda
          woman-ng   <TR.PRV>buy   NOM   fish
          'woman who bought the fish'

      d. CP

DP$_{[NOM]}$ — C'
          C — AspP
          V+v+Asp — vP
          <DP$_{[u CASE]}$> — v'
          DP$_{[GEN]}$ — v'
          <V+v> — VP
          <V> — <DP$_{[u CASE]}$>

The external argument can move in intransitive clauses. Intransitive v does not have the ability to assign inherent case to its specifier, so this argument is dependent on C for licensing. Consequently, it is this argument which can undergo dislocation in intransitive clauses, as shown in (6b). The internal argument, on the other hand, is assigned inherent case within VP, as evidenced by the genitive case on the object in the antipassive examples in (6a, b). The genitive object is unable to move, as shown in (6c). It has already valued its case feature, and [Spec, CP] is occupied by the external argument.

(6)   a. B<um>ili   ang   babae   ng   isda.
          <INTR.PRV>buy   NOM   woman   GEN   fish
          'The woman bought a fish.'
      b. babae-ng   b<um>ili   ng   isda   (Intransitive subject: OK)
          woman-LK   <INTR.PRV>buy   GEN   fish
          'woman who bought a/the fish'
      c. *isda-ng   b<um>ili   ang   babae   (AP object: *)
          fish-LK   <INTR.PRV>buy   NOM   woman
          'fish that the woman bought'

d.

CP
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        CP
       /  \
 DP[NOM]   C'
          /  \
         C    AspP
             /    \
        V+v+Asp    vP
                  /   \
           <DP[uCASE]>  v'
                       /  \
                   <V+v>    VP
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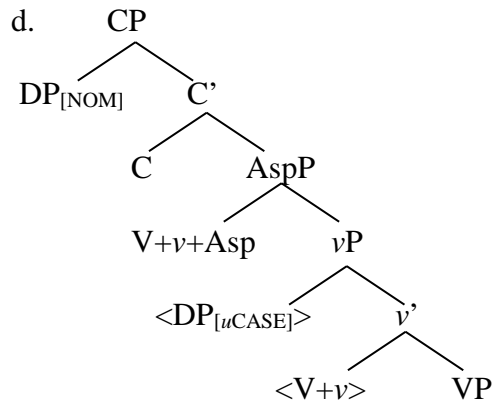
To summarize, in Tagalog only the nominative DP can move to [Spec, CP], because this is the position where nominative case is valued.

2.3 Supporting Evidence

In the preceding subsections, I proposed that DPs in ergative languages with the extraction restriction are licensed by valuing a case feature on the argument itself rather than valuing a probe on the case-licensing head. Consequently, there is no unvalued feature on the phase head which needs to be inherited by a lower head, and movement for case valuation will target the edge of the phase in question. This in turn predicts that there is no A/A' partition, since there is no landing site for DP movement distinct from the edge of the phase. The lack of an A/A' partition also predicts that there are no additional features, such as [uWH], driving movement of DPs apart from case.

2.3.1 Lack of A/A' Partition

In the preceding subsection, I proposed that C-T inheritance does not take place in Tagalog, and DPs move directly to [Spec, CP] to value nominative case. This in turn predicts the lack of an A/A' partition in this language, since the movement landing site is always [Spec, CP]. Evidence for this comes from long distance movement. Local movement in the originating clause will target the nominative DP within that clause. But movement into a higher clause is also sensitive to the presence of a nominative DP. Specifically, for movement into a higher clause to be licit, there can be no nominative DP in that clause. (7b) is ungrammatical due to the presence of a nominative external argument in the higher clause. This ungrammaticality is accounted for on my analysis, since a nominative DP would occupy [Spec, CP] and deny a landing site for the DP moving from the lower clause.

(7)   a.   ang   libro=ng   [CP s<in>abi=**niya**=ng
             NOM   book=LK   <TR.PRV>say=3SG.GEN=LK
                 [CP b<in>ili=mo   sa Maynila]]?
                     <TR.PRV>buy=2SG.GEN   in Manila
             'the book that he/she said you bought in Manila'

b. *ang   libro=ng   [CP nag-sabi=**siya**=ng
   NOM   book=LK   INTR.PRV-say=3SG.NOM=LK
      [CP b<in>ili=mo   sa Maynila]]?
          <TR.PRV>buy=2SG.GEN   in Manila
   'the book that he/she said you bought in Manila'

Davies and Kurniawan (2013) analyze a similar set of facts in the Indonesian language Sundanese. They propose that this language has "successive cyclic A-movement" in which long distance movement traverses through each (nominative) subject position along its path.

2.3.2   Lack of *Wh*-features

Given my proposal that DPs move only to value case, there should also be no evidence of other features which could motivate movement of a DP. Indeed, Tagalog lacks morphological evidence for a *wh*-feature like that in English (***who, what, where, when, why***). On the contrary, Tagalog nominal interrogative words have an incorporated determiner or case marker (Blust 2015; Kaufman 2017): *si* for nominative personal names, *a* for nominative common nouns, and *ni* for genitive personal names.

(8)   a. *sino* 'who.NOM.PN'   *si Maria* 'NOM.PN Maria'
       b. *ano* 'what.NOM.CN'   *a-ng guro* 'NOM.CN teacher'
       c. *nino* 'who.GEN.PN'   *ni Maria* 'GEN.PN Maria'

It might be countered that the shared syllable *no* in these words is a *wh*-feature, but this component is not shared by other interrogative pronouns like locative/dative interrogative words. These interestingly appear to begin with a prepositional element, *ka(y)* marking dative personal names, or *sa* occurring with other goals or locatives.

(9)   a. *saan* 'where'   *sa Maynila* 'in/to Manila'
       b. *kanino* 'to whom'   *kay Maria* 'to Maria'

When adverbial interrogative words are considered, no 'wh' morpheme seems to be shared among them or with any other interrogative word in the language.

(10)   a. *kailan* 'when'
       b. *bakit* 'why'
       c. *ilan* 'how many'

In sum, there is no evidence for an affix or other morphological flag identifying interrogative pronouns as a class. However, there is a clear demarcation between the nominal interrogative pronouns (8), which appear to have an incorporated case marker, and the locative type in (9), which bear formal resemblance to PPs. In the next subsection, I show that there is also a syntactic asymmetry distinguishing questions formed on nominal, as opposed to non-nominal, interrogative pronouns.

2.3.3   DP/Non-DP Asymmetry

In the preceding subsection, I suggested that Tagalog lacks a morphological *wh*-feature marking interrogative constituents as a class. However, there are other morphological markers which distinguish nominal from non-nominal interrogative pronouns. In this subsection, I show that this distinction carries over to the syntax. *Wh*-questions in Tagalog have different structural properties, depending on whether the interrogative constituent is a DP or a non-DP. When this constituent is a DP, the question takes the form of a cleft in Tagalog. The interrogative phrase occupies clause-initial position and functions as the predicate in the matrix clause. The presupposition is packaged as a headless relative clause following the absolutive/nominative case marker. What moves inside this relative clause is a null operator. I assume the structural analysis of Tagalog clefts proposed by Aldridge (2004, 2013b), but the reader is also referred to Georgopoulos (1991), Paul (2000), Pearson (2001), Massam (2003), Potsdam (2006, 2007, 2009), and others for a variety of analyses of DP *wh*-questions in Austronesian languages as clefts and not derived through movement of the interrogative constituent to [Spec, CP].

(11)   a.   Sino   ang   [$_{CP}$ OP b<**um**>ili t_{OP} ng   tela   sa Maynila]?
           who   NOM   <INTR.PRV>buy   GEN   cloth   in   Manila
           'Who bought (some) cloth in Manila?'

       b.   Ano   ang   [$_{CP}$ OP b<**in**>ili=mo t_{OP} sa Maynila]?
           what   NOM   <TR.PRV>buy=2SG.GEN   in   Manila
           'What did the woman buy in Manila?'

In contrast to this, non-DP *wh*-words in Tagalog are not cleft predicates. The interrogative constituent fronts to clause-initial position within the CP. Note the absence of a nominative case marker following this constituent. Rather, second position clitic pronouns attach to this constituent, suggesting the lack of a clause boundary following the *wh*-word. This contrasts with the cleft structure, as shown by the position of the clitic pronoun inside the relative clause in (11b) rather than immediately following the interrogative pronoun.

(12)   a.   [**Saan**=mo   [$_{AspP}$ b<**in**>ili   ang   libro]]?
           where=2SG.GEN   <TR.PRV>buy   NOM   book
           'Where did you buy the book?'

       b.   [**Saan**=ka   [$_{AspP}$ b<**um**>ili   ng   libro]]?
           where=2SG.NOM   <INTR.PRV>buy   GEN   book
           'Where did you buy the book?'

As can be seen, DP and non-DP *wh*-questions have different structural properties, suggesting again that there is no single operation of *wh*-movement to [Spec, CP] which targets all interrogative phrases. The possibility of non-DP fronting in (12) does, however, introduce a question for my analysis of extraction in Tagalog. Since the moving constituent is a non-DP, the motivation for its movement cannot be case. This is of course supported by the fact that it is not sensitive to the presence of a nominative DP in the clause; both examples in (12) include nominative DPs in argument position, but movement of the non-DP is still grammatical. So another feature must be present to motivate movement of non-DPs.

I propose that non-DPs move to check a focus feature, and the landing site for this movement is a position not only distinct from the DP landing site in [Spec, CP], but is also located lower within the left periphery. First note that focus fronting of non-interrogative constituents in Tagalog has the same derivation. In (13b), a focused PP moves to clause-initial position, and the second position ergative clitic attaches to it.
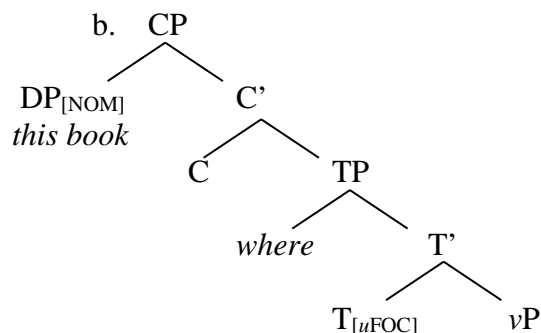
(13)   a   I-b<in>igay=ko   ang   kendi **sa bata**.
             APPL-<TR.PRV>give=1SG.GEN   NOM   candy to child
             'I gave the candy to the child.'
        b   **Sa bata**=ko   i-b<in>igay   ang   kendi.
             to child=1SG.GEN   APPL-<TR.PRV>give   NOM   candy
             '*To the child*, I gave the candy.'

(14) shows that the landing site for focus movement is located below C, since focused PPs and adverbials in embedded clauses follow the complementizer introducing that clause.[6]

(14)   Hindi=ko   alam   [kung **saan**=siya   [$_{AspP}$ b<um>ili   ng   tela]].
        NEG=1SG.GEN know   C   where=3SG.NOM   <INTR.PRV>buy   GEN   cloth
        'I don't know where he/she bought (some) cloth.'

Fronted non-DPs also follow fronted DPs, like topics, as shown in (15a). I propose that fronting of interrogative and other focused non-DPs is driven by an uninterpretable focus feature [*u*Foc]. Since uninterpretable features like [*u*Foc] must be inherited from C to a lower head, according to my proposal in section 2, the landing site for focus movement is located below [Spec, CP]. To derive the example in (15a), the topicalized DP moves to [Spec, CP] and values nominative case. Since [*u*Foc] is inherited by a lower head, i.e. T, the focused constituent moves to [Spec, TP].

(15)   a.   Ito-ng   libro   ay   saan=mo   b<in>ili?
              this-LK   book   TOP   where=2SG.GEN   <TR.PRV>buy
              'This book, where did you buy (it)?'

        b.   CP
              ┌─────┴─────┐
         DP[NOM]   C'
        this book   ┌──┴──┐
                       C   TP
                         ┌───┴───┐
                      where   T'
                              ┌───┴───┐
                         T[*u*FOC]   *v*P

The question may arise at this point as to whether a DP can undergo focus movement to [Spec, TP]. The answer is that it cannot. As shown above in (11), focused DPs occupy the position of predicates in cleft constructions and do not undergo focus fronting like the non-DPs in (12). I

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[6] Kroeger (1993) also proposes that Tagalog focus constituents move to [Spec, TP] on the basis of their position relative to complementizers.

propose that this is because movement to the lower focus position would prevent the DP from being case licensed, since the position for nominative case is [Spec, CP] and not [Spec, TP]. In this way, my proposal that only uninterpretable features are inherited by T from C accounts for the asymmetry between DP and non-DP interrogative and focus constructions.

2.3.4 Lack of Superiority Effects

I have argued above that movement of interrogative constituents in Tagalog is not driven by a *wh*-feature. Another prediction made by this proposal is that Tagalog *wh*-movement lacks superiority effects of the sort familiar from English. In English, [*u*WH] on C attracts the closest *wh*-phrase, with the result that subject movement in a multiple *wh*-question like (16a) is grammatical, while movement of a *wh*-object over a *wh*-subject in (16b) is not. This is accounted for in terms of locality, the subject being the closer goal to the [*u*WH] probe on C.

(16) a. Who bought what?
      b. *What did who buy?

      c.

$$C/TP$$

DP[WH, NOM]   C/T'

C/T[*u*φ], [*u*WH]   *v*P

<DP[WH, NOM]>   *v*'

v   VP

V   DP[WH, ACC]
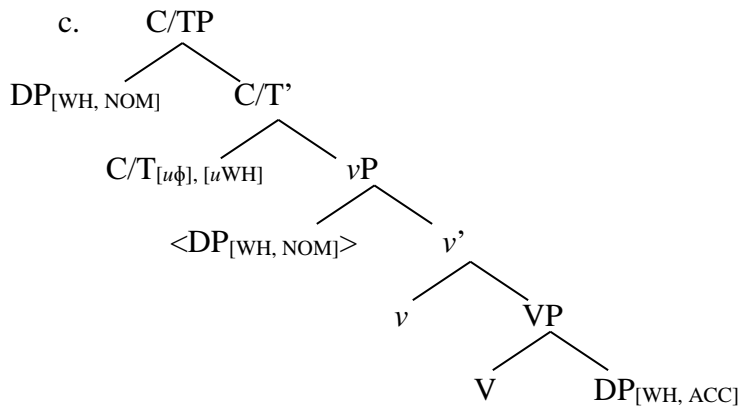
But in Tagalog, either the internal or external argument can be extracted in multiple *wh*-questions. This is easily accounted for on my analysis, since extraction depends on the valuation of nominative case, not on [*u*WH]. What is crucial here is that the clause-initial interrogative constituent be the nominative DP inside the clause.

(17) a. Sino   ang   b<um>ili   ng   ano?
          who   NOM   <INTR.PRV>buy   GEN   what
          'Who bought what?'
      b. Ano   ang   b<in>ili   nino?
          what   NOM   <TR.PRV>buy   who.GEN
          'What did who buy?'

To summarize this section, I have proposed that syntactically ergative languages like Tagalog lack an A/A' partition, and all movement of DPs targets the nominative case position in [Spec, CP]. As supporting evidence, I have shown that both local and long distance movement target the position for nominative case valuation, [Spec, CP]. I have also shown that the language lacks other features like [*u*WH] which could potentially attract a lower DP over the nominative DP.

Up to this point, I have focused on the role of nominative case licensing in accounting for the extraction restriction in syntactically ergative languages. But I would like to also draw attention to the role played by inherent case licensing for the external argument. Assignment of inherent case by transitive *v* to its specifier is the parameter proposed by Legate (2002) which distinguishes ergative from accusative alignment. But it also has significant consequences for the syntax. In my analysis, assignment of inherent case to the external argument satisfies its licensing needs independent of structural case on C/T, which in turn allows nominative case to be valued on an internal argument and also makes [Spec, CP] available as a landing site for movement of the lower argument.

In the next section, I turn to an accusative language that also has the extraction restriction. In this language, the nominative subject is freely able to move to the left periphery, but movement of lower arguments is more restricted. In order to move a lower constituent, the clause must be nominalized so the subject is assigned inherent genitive case. As in ergative languages, assignment of inherent case to the external argument removes the dependency on structural case licensing for this argument and allows a lower constituent to move over it.

3   The Extraction Restriction in an Accusative Language

In this section, I show that Late Archaic Chinese (LAC), an accusative language attested in the 3rd to 5th centuries BCE, had the same extraction restriction as just observed for Tagalog. Subjects could freely undergo dislocation, but in order to move an internal argument over the subject, as in relativization, the clause had to be nominalized so that the subject was assigned inherent (genitive) case. This allowed the object to move over the subject to [Spec, CP]. I also show that LAC, like Tagalog, lacked morphological evidence for *wh*-features.
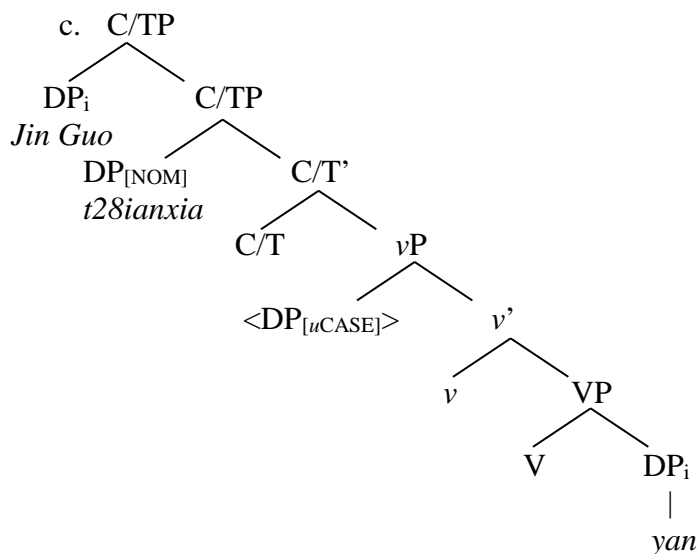
3.1   Topicalization

LAC was an SVO language with accusative alignment. The nominative subject surfaced in clause-initial position. I analyze the position of the subject as [Spec, CP], where this DP moves to value nominative case. The subject in (18a) precedes the adverb *yi*, indicating its structurally high position.

(18)   a.   鄭伯亦惡之。   (*Zuozhuan*, Xi 31)
            Zheng bo   yi __ wu   zhi.
            Zheng earl   also   dislike 3.OBJ
            'And the Earl of Zheng also disliked him.'

b. C/TP

DP[NOM]   C/T'
Zheng Bo
            C/T   *v*P
        <DP[*u*CASE]>   *v*'
                        v   VP
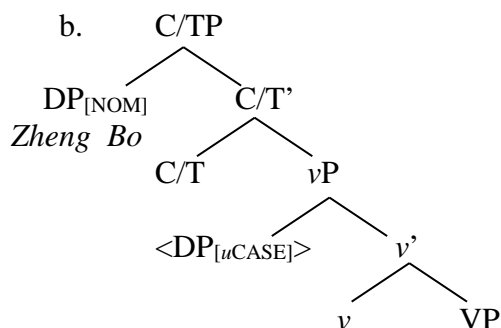
In contrast to this, topicalized objects in LAC had to be resumed by overt pronouns. My analysis accounts for this straightforwardly, since the object cannot move over the subject located in [Spec, CP]. I assume that object topics are base generated high, adjoined to CP and resumed by pronouns in argument position.

(19)   a. 子路，人告之以有過。   (*Mencius* 3)
           Zilu   ren   gao   **zhi**   yi   you   guo.
           Zilu   person   tell   3.OBJ   YI   have   error
           'Zilu, someone told him he made a mistake.'
       b. 晉國，天下莫強焉。   (*Mencius* 1)
           Jin   *Guo* tianxia   mo   qiang   **yan**.
           Jin   nation world   none   strong   3.DAT
           'The Jin nation, in the world, none is stronger than them.'

c. C/TP

DP_i   C/TP
Jin Guo
            DP[NOM]   C/T'
            t28ianxia
                    C/T   *v*P
                <DP[*u*CASE]>   *v*'
                                v   VP
                                        V   DP_i
                                                 |
                                               yan

3.2 *Wh*-movement

LAC also had a type of *wh*-movement. VP-internal interrogative phrases moved to a position preceding the verb but following the subject. The second clause in (20a) shows that LAC had verb-object order when the object was not an interrogative phrase.

(20) a. 吾誰欺？　欺天乎？　　　　　　(*Analects*, Zihan)
          Wu   **shei** [VP qi *tshei*]? Qi   tian   hu?
          I   who   deceive   deceive   Heaven   Q
          'Who do I deceive? Do I deceive Heaven?'

      b. 天下之父歸之，　其子焉往？　(*Mencius*, Lilou 1)
          Tianxia   zhi   fu   gui   zhi   qi   zi   **yan**   [VP wang *tyan*]?
          world   GEN father settle here 3.GEN son   where   go
          'If the fathers of the world settled here, where would their sons go?'

What is interesting here is that, although object *wh*-phrases underwent movement, they never moved over the subject. Nor did their movement target the same position as a subject interrogative phrase, as shown in (21). As first observed by Wei (1999), subject *wh*-phrases occupy a position preceding the modal *jiang* 'will', as in (21a), while object *wh*-phrases follow this modal, as in (21b).

(21) a. 誰將治之？　　　　　　　　(*Yanzi Chunqui*, Neipian Jianshang13)
          Shei **jiang** zhi   zhi?
          who   will   govern them
          'Who will govern them?'

      b. 我將何求？　　　　　　　　(*Zuozhuan*, Xi 28)
          Wo   **jiang** *he*   qiu?
          I   will   what   ask:for
          'What will I ask for?'

Aldridge (2010) accounts for the asymmetry between subject and object *wh*-movement by proposing that object *wh*-movement targets the edge of *v*P, below the surface position of the subject and the position of the modal in C. On the approach proposed here, the object cannot proceed further to [Spec, CP], because this position is occupied by the subject, which must value nominative case in this position. The object located in the outer edge of *v*P does not intervene for the purposes of case licensing the subject, because the object's case feature has already been valued.

(22)
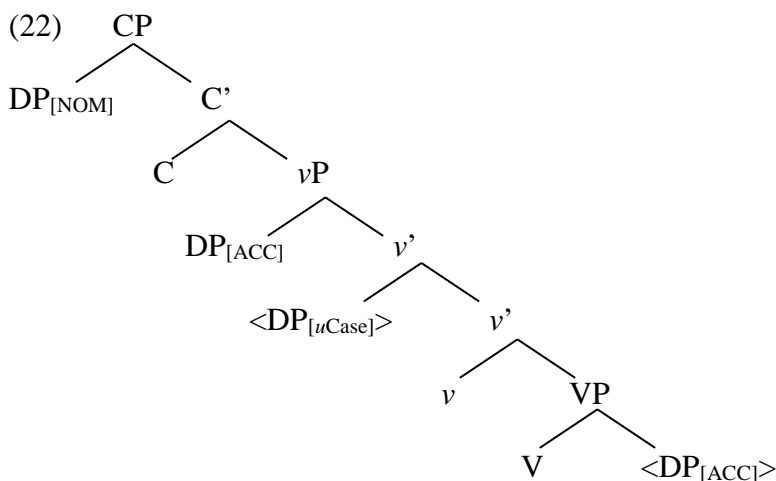
The subject/object asymmetry further suggests that fronting of interrogative pronouns was not driven by a [uWH] feature on C, since if it were, then both subject and object *wh*-phrases would be expected to move into the left periphery. The lack of a [uWH] feature in LAC is supported by Old Chinese reconstructions. Wang (1958) reconstructs Old Chinese interrogative pronouns as belonging to three classes. The *wh*-words in (23a), beginning with the consonant [ʐ-], are claimed to refer to persons. Those in (23b), with the initial consonant [ɣ-], are claimed to refer to things. And those in (23c), which lack a consonantal onset, are claimed to refer to locations. The italicized transcriptions are the pronunciations of these words in modern Mandarin. Crucially, there is no common morpheme shared by all of these words which identifies interrogative pronouns collectively as a class.

(23)   Old Chinese interrogative pronoun reconstructions (Wang 1958)
    a. [ʐ-] series: 誰 *shéi* [*ʐǐwəi] 'who', 孰 *shú* [*ʐǐwəuk] 'which'
    b. [ɣ-] series: 何 *hé* [*ɣa] 'what', 奚 *xī* [*ɣǐe] 'what'
    c. [0-] series: 恶 *wū* [*ɑ] 'where', 安 *ān* [*an] 'where', 焉 *yān* [*ǐan] 'where'

On the other hand, these classes reconstructed by Wang (1958) are strikingly parallel to those I proposed for Tagalog, which shows different marking for personal names (24a), common nouns (24b), and locatives (24c). This suggests that lexical category plays a role in the movement of interrogative constituents, which in turn may be related to case in instances of nominal movement.
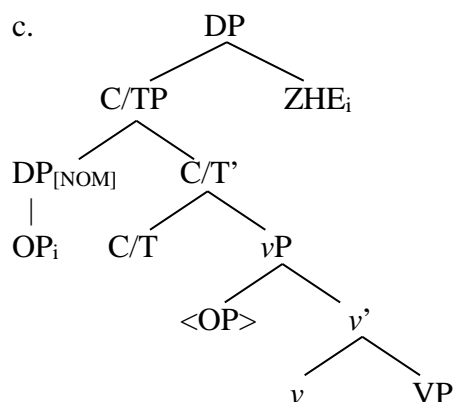
(24)   a. *sino* 'who.NOM.PN'   *si Maria* 'NOM.PN Maria'
         b. *ano* 'what.NOM.CN'   *a-ng guro* 'NOM.CN teacher'
         c. *saan* 'where'   *sa Maynila* 'in/to Manila'

3.3 Relative Clauses

The subject/object movement asymmetry in LAC is further evidenced by the existence of separate strategies for forming relative clauses on subject, as opposed to VP-internal positions. Subject relative clauses are followed by the determiner *zhe*. Aldridge (2009) analyzes the function of *zhe* as binding the gap in subject position in [Spec, CP][7].

(25)   a. 夫執輿者為誰？   (*Analects*, Weizi)
         [DP Fu [nP [CP *e* [VP   zhi   yu]]   **zhe**]] wei   shei?
            DEM   control carriage   DET   COP   who
         'Who is the one driving the carriage?'
         b. 欲戰者   (*Zuozhuan*, Cheng 6)
         [DP [CP *e* [VP   yu   zhan]] **zhe**]
                        desire fight   DET
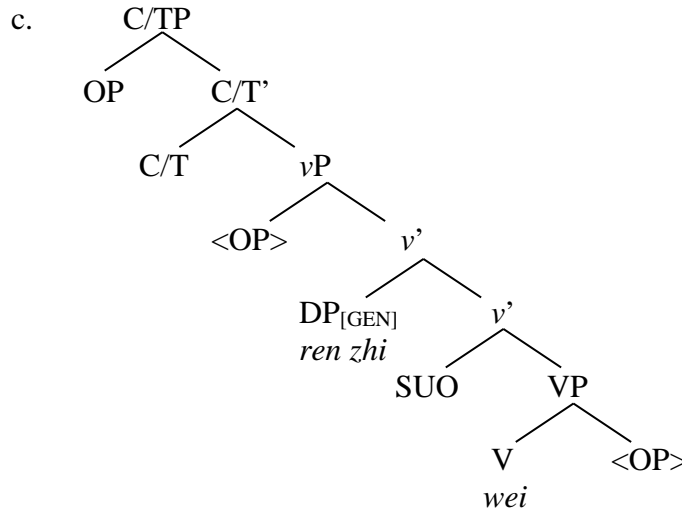   '(those) who desire to fight'

---

[7] See Williamson (1987), Kayne (1994), and others for proposals in which a determiner directly selects a relative clause CP. See Basilico (1996) for an analysis of relative clauses in which the external determiner binds the head position to derive a relative clause.

c.
```
                    DP
              ┌──────┴──────┐
           C/TP            ZHEi
         ┌───┴───┐
    DP[NOM]      C/T'
       │       ┌──┴───┐
      OPi     C/T     vP
            ┌──────────┴──────┐
          <OP>               v'
                          ┌───┴───┐
                          v       VP
```

In contrast to this, object relative clauses utilize two different morphemes. One is the relativizer *suo*, which I analyze as a nominalizer. *Suo* projects a nominalized *v*P (or *n*P) and assigns genitive case to the external argument in the specifier of this projection. The genitive case on the subject is the second morpheme distinguishing object from subject relative clauses in LAC. On my analysis, object relative clauses must be nominalized, because an object is not able to move to [Spec, CP] in the presence of a nominative subject, since the subject will occupy this position in order to be case licensed. Nominalizing the clause, however, provides a strategy for licensing the subject with inherent genitive case, which obviates the need for it to value structural case. This leaves [Spec, CP] free as a landing site for the object.[8]

(26) a. 其北陵，文王之所避風雨也。   (*Zuozhuan*, Xi 32)
          Wen   Wang **zhi**   suo   [VP bi   feng   yu __]
          Wen   king GEN   REL   escape wind   rain
          'where the (Zhou) king Wen took shelter from the storm'
      b. 人之所畏   (*Laozi* 20)
          ren   **zhi**   suo   wei __
          person GEN   REL   fear
          'what people fear'

---

[8] This analysis is adapted from Aldridge (2013a).

c.

```
              C/TP
             /    \
           OP      C/T'
                  /    \
                C/T     vP
                       /   \
                    <OP>    v'
                           /  \
                   DP[GEN]     v'
                   ren zhi    /  \
                          SUO    VP
                                /   \
                               V    <OP>
                              wei
```

3.4   Adjunct Embedded Clauses

My proposal also accounts for an asymmetry in other types of embedded clauses. Assertive/indicative embedded clauses in LAC were finite CPs and had nominative subjects. Note the lack of genitive marking on the embedded subjects in (27).

(27)   a.   臣聞皋落氏將戰。   (*Zuozhuan*, Min 2)
             Chen wen [Gaoluo   shi   jiang zhan].
             I   hear Gaoluo   tribe will   fight
             'I hear that the Gaoluo tribe is going to fight.'
       b.   以為士者正其言，必其行。   (*Zhuangzi* 29)
             Yiwei   [shi zhe   zheng qi   yan, bi   qi   xing].
             think   serve DET   correct 3GEN word certain 3GEN   behavior
             '… think that one who serves speaks correctly and acts with certainty.'

In contrast to this, adverbial and conditional clauses were nominalized and had genitive subjects. (28a) shows a temporal adverbial, and (28b) shows a conditional clause.

(28)   a.   宋殤公之即位也，公子馮出奔鄭。   (*Zuozhuan*, Yin 4)
             [Song Shang gong **zhi**   jiwei ye],
             Song Shang duke GEN   ascend NMLZ
                gongzi Feng chu   ben   Zheng.
                prince Feng leave flee Zheng
             'When the Song Duke Shang ascended the throne, the prince Feng left and fled to Zheng.'
       b.   皮之不存，毛將安傳？   (左傳/僖公十四年)
             [Pi **zhi** bu cun], mao jiang an   fu?
             skin GEN   not exist hair will   where attach
             'If there were no skin, then where would the hair attach?'

Geis (1975), Larson (1987), Dubinsky & Williams (1995), Bhatt and Pancheva (2002, 2006), Demirdache & Uribe-Etxebarria (2004), Haegeman (2010) have proposed that operator movement to [Spec, CP] takes place universally in temporal and conditional clauses. This accounts for the inability of other constituents, like topics, to undergo fronting in this type of embedded clause, because the landing site is occupied by the operator.

(29)   a.   That film, I never want to see again.
        b. *[CP When [**that film**] [TP I went to see]], I remembered my first trip to Tokyo.
        c. *[CP OP If [**this film**] [TP you go to see]], you will remember our first trip to Tokyo.

Coupled with this proposal, my analysis of extraction in LAC accounts straightforwardly for the fact that LAC temporal and conditional clauses had to be nominalized. In order to provide a landing site for operator movement, the external argument had to be given inherent genitive case, so the operator could move to [Spec, CP].

In this section, I have argued that LAC had the same extraction restriction exhibited by syntactically ergative languages like Tagalog. LAC objects could not move over a nominative subject. Subjects had to have inherent (genitive) case to allow movement over them. There is also no evidence of *wh*-features in LAC.

4   Conclusion

In this paper, I have proposed an analysis of a restriction on extraction in certain languages whereby movement of a DP is limited to the argument with nominative case. I proposed that this is because case in these languages is not valued by an uninterpretable feature at the landing site. Consequently, it is not inherited by a lower head. This means that DP movement must target the edge of the phase, consequently filling [Spec, CP] and preventing movement of other constituents to this position.

This analysis accounts for a wide array of facts, starting with the fact that nominative DPs undergo movement freely, while other arguments are unable to move over a nominative subject. Object movement is allowed only over a subject with inherent case. Unsurprisingly, this restriction is commonly observed in languages with ergative alignment, since transitive subjects are assigned inherent ergative case in these languages. This allows objects in transitive clauses to value nominative case and move over the external argument to [Spec, CP].

In accusative languages with the extraction restriction, the subject in a finite clause is able to undergo movement freely. But in order to extract a lower argument, it is necessary to use an embedded clause type like a nominalization which provides inherent case to the subject and allows the object to move over it. Another common characteristic of this type of language, then, is the role of inherent case licensing for the subject in order to enable movement of an object. Unsurprisingly, transitive clauses in many ergative languages with the extraction restriction have been reported to have either a synchronic or diachronic connection to nominalization (Bricker 1981, Gildea 1998, Johns 1992, Kaufman 2009, Starosta et al. 1982, and others).

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