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# Case in Ergative Languages and NP Split-Ergativity

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## 1 Introduction

A long-standing puzzle in the study of ergative languages is the phenomenon of NP split-ergativity. In the Pama-Nyungan language Dyirbal, case-marking on 3<sup>rd</sup> person arguments follows an ergative-absolutive pattern. Transitive subjects take the ergative suffix *-Ngu*, while transitive objects and intransitive subjects are morphologically unmarked.

- Dyirbal (Dixon 1994:161)
- (1) a.      *yabu*              *banaga-n<sup>y</sup>u*  
         mother.Abs      return-Nonfut  
         “Mother returned.”
- b.      *Numa*              *yabu-Ngu*              *bura-n*  
         father.Abs      mother-Erg              see-Nonfut  
         “Mother saw father.”

1<sup>st</sup> and 2<sup>nd</sup> person pronouns, on the other hand, exhibit a nominative-accusative pattern. Objects take the accusative suffix *-na*, while subjects are morphologically unmarked.

- Dyirbal (Dixon 1994:161)
- (2) a. *Nana* banaga-n<sup>y</sup>u  
we.Nom return-Nonfut  
“We returned.”
- b. *n<sup>y</sup>urra* banaga-n<sup>y</sup>u  
you.Pl.Nom return-Nonfut  
“You all returned.”
- c. *n<sup>y</sup>urra* Nana-**na** bura-n  
you.Pl.Nom we-Acc see-Nonfut  
“You all saw us.”
- d. *Nana* *n<sup>y</sup>urra-na* bura-n  
we.Nom you.Pl-Acc see-Nonfut  
“We saw you all.”

In other respects, however, Dyirbal is a syntactically ergative language. For example, clausal coordination takes place on an absolutive pivot, regardless of case-marking. In (3), the shared argument is the absolutive NP in both conjuncts: transitive object of the first conjunct and intransitive subject of the second conjunct.

- Dyirbal (Dixon 1994:162)
- (3) [**Numa** yabu-Ngu buran] [banagan<sup>y</sup>u]  
father.Abs mother-Erg saw returned  
“Mother saw father and he returned.”

In (4), an example with pronominal arguments, the shared argument is likewise the transitive object of the first clause and the intransitive subject of the second clause.

- Dyirbal (Dixon 1994:162)
- (4) [*n<sup>y</sup>urra* **Nana-na** buran] [banagan<sup>y</sup>u]  
you.Pl.Nom we-Acc saw returned  
“You all saw us and we returned.”

Another Pama-Nyungan language Warlpiri exhibits a different type of NP split. The split in this case is between free and bound forms. NPs are marked with ergative and absolutive case. But agreement clitics, which double these arguments, show a nominative-accusative pattern. In the transitive clause in (5a), the 2<sup>nd</sup> person subject is marked with ergative case; in the intransitive clause in (5b), this subject is marked absolutive. However, the agreement marker takes the same form in both cases. (5a) and (5c)

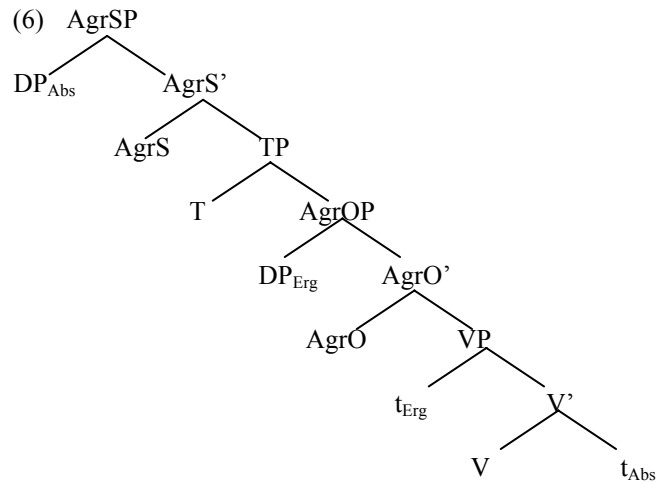
show that a transitive object receives the same absolutive case-marking as a intransitive subject, while the agreement clitics are different.

- Warlpiri (Bittner & Hale 1996:23)
- (5) a.      *Nyuntulu-rlu*      **ka-npa-ju**      *ngaju*      *nya-nyi*.  
                  you-Erg                    Pres-2s-1s                    me.Abs      see-Nonpast  
                  “You see me.”
- b.      *Nyuntu*                    **ka-npa**                    *parnka-mi*  
                  2s.Abs                    Pres-2s .Subj                    run-Nonpast  
                  “You are running.”
- c.      *Ngaju*      **ka-rna**                    *parnka-mi*.  
                  me.Abs      Pres-1s                    run-Nonpast  
                  “I am running.”

This paper proposes an analysis of the two types of NP split-ergativity illustrated above. The main question to be addressed is whether the split is merely a morphological phenomenon or whether a separate syntactic mechanism is needed to account for it. I show that the split in case-marking is merely morphological and can be subsumed straightforwardly under a syntactic account of ergativity, assuming the late insertion model of Distributed Morphology. However, this is only possible under an analysis of ergativity which departs from the traditional approaches.

## 2 Challenge for Traditional Approaches to Ergativity

NP split-ergativity presents a serious challenge to traditional approaches to ergativity. Under such analyses, ergative and absolutive cases are taken to reflect grammatical functions and as such are uniformly associated with a particular functional category. In one approach, absolutives are treated as subjects and receive their case from the nominative-assigning functional projection (Murasugi 1992; Campana 1992; Bittner 1994; Bittner & Hale 1996; Manning 1996; Ura 2000). For example, Murasugi (1992) proposes that absolutive DPs move to [Spec, AgrSP] to check case, while ergatives check their case in [Spec, AgrOP].



This analysis faces difficulties accounting for paradigm in (2). For instance, the nominative pronouns in (2a) and (2b), as well as the accusative pronouns in (2c) and (2d), would move to [Spec, AgrSP], since they are syntactic absolutes. But the structure in (6) cannot determine when the morphological case on the pronoun should be null or should take the accusative suffix.

Levin & Massam (1985), Bobaljik (1993), and Laka (1993) take the opposite approach and propose analyses which treat the absolute as an object rather than the subject. In transitive clauses, ergative case is essentially equated with nominative and absolute with accusative. Therefore, ergative case is checked in [Spec, AgrSP], while absolute case is checked in the lower [Spec, AgrOP]. The problem presented by the paradigm in (2) is essentially the same as for the previous analysis. In this case, intransitive subjects and transitive objects will all move to [Spec, AgrOP]. But, again, no mechanism is in place for distinguishing when the case assigned by this functional head is absolute or accusative.

### 3 Subject in Ergative Languages

The main shortcoming of the traditional approaches to ergativity is the assumption that case-marking mirrors grammatical function. In this section, I show that neither absolutes nor ergatives behave uniformly as subjects. In most ergative languages, the ergative DP functions as the subject of a transitive clause, while absolutes exhibit subject-like behavior in intransitive contexts (Anderson 1976, Manning 1996, Ura 2000, Legate 2003, Aldridge 2004, and others).







Dyirbal (Dixon 1994:169-170)

- (20) yabu<sub>i</sub> [ e<sub>i</sub> bural-nga-ngu nguma-gu]  
 mother.Abs see-AP-Rel.Abs father-Dat  
 banaga-nyu  
 return-Nonfut  
 “Mother, who saw father, was returning.”

(21) shows the same facts for *wh*-movement in Jacaltec Mayan. The object absolutive can be extracted directly from the transitive clause in (21a). But the verb must be antipassivized to extract the subject, as shown in (21b).

Jacaltec Mayan (Craig 1977:14)

- (21) a. mac xawila  
 whom you.saw  
 “Whom did you see?”  
 b. mac xcach mak-**ni**  
 who you hit-AP  
 “Who hit you?”

In Sections 4 and 5, I present the analysis of case and agreement in Warlpiri and Dyirbal. In Section 6, I return to the issue of syntactic ergativity and propose an analysis of the absolutive restriction on A'-extraction.

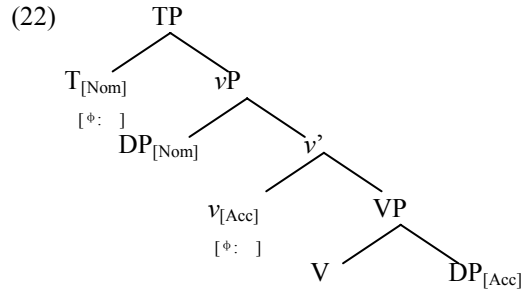
#### 4 *v*-Type Ergativity<sup>1</sup> and the Bound/Free Split

The primary conclusion of the preceding section is that absolutives function as subjects only in intransitive clauses and should be treated as objects in transitive contexts. This section presents a formal analysis of this split in subject and object behavior. The proposal is grounded in recent Minimalist theory, as proposed by Chomsky (2000, 2001a, 2001b). In a transitive clause in an accusative language, T values nominative case on the subject DP, while transitive *v* values accusative case on the direct object. In languages with subject and object agreement, the  $\phi$ -features of the object are copied to *v* and those of the subject are copied to T.

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<sup>1</sup> Aldridge (2004) proposes that there are two types of syntactically ergative language: *v*-type, in which absolutive case-checking is shared by T and *v*; and T-type, in which absolutive case is checked uniformly by T. In the current paper, I discuss only *v*-type ergativity.



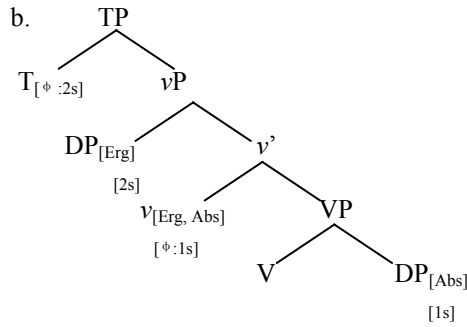


This system can be translated almost directly to ergative languages. The split in object and subject properties exhibited by absolutes is captured by merging the absolutive case feature in T in intransitive clauses and *v* in transitive clauses. Ergative case is inherent, assigned by transitive *v*.<sup>2</sup> Agreement takes place just as in (23): T copies the  $\phi$ -features of the subject (the ergative DP in transitive clauses and the absolutive in intransitive clauses). *v* copies the  $\phi$ -features of the absolutive object in transitive clauses.

To see how this case and agreement system works for Warlpiri, consider the transitive clause in (24). Transitive *v* carries an absolutive case feature, which it values on the object DP. It also copies the  $\phi$ -features of the object and assigns inherent ergative case to the external argument. T does lack a case feature but copies the subject's agreement features.

Warlpiri (Bittner & Hale 1996:23)

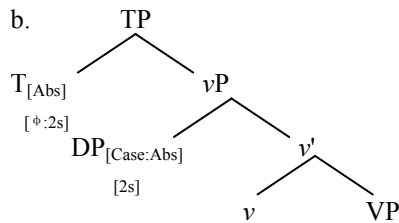
- (23) a. Nyuntulu-*rlu* ka-**npa-ju** *ngaju* nya-nyi.  
 you-Erg Pres-2s-1s me.Abs see-Nonpast  
 "You see me."



<sup>2</sup> Bittner and Hale (1996), Ura (2000), Legate (2003), Aldridge (2004), and others have similarly proposed that ergative case is inherent and not structural.

In an intransitive clause,  $\nu$  has neither case nor agreement features. T assigns absolutive case to the subject and copies its  $\phi$ -features.

- (24) a. Warlpiri (Bittner & Hale 1996)  
*Nyuntu*            **ka-npa**            *parnka-mi.*  
 2s.Abs            Pres-2s .Subj        run-Nonpast  
 “You are running.”



NP split-ergativity between agreement and case-marking will be realized automatically, since the agreement features copied to T are those of subjects and the agreement features copied to  $\nu$  are those of objects. We need only to designate that  $\phi$ -features on T are replaced with forms from the nominative paradigm and those on  $\nu$  are taken from the accusative paradigm.<sup>3</sup>

The question might be raised at this point as to how the syntax knows when T has a case feature and when it does not. The answer to this question is that this feature is freely assigned to T. It is an uninterpretable feature and as such must be checked prior to Spell-Out. It can only be checked when it enters into an Agree relation with an unvalued case feature on a DP in its c-command domain, as per Minimalist assumptions. This entails that the derivation only converges when T carries an absolutive case feature in intransitive clauses. This is because in transitive clauses, the object and subject are assigned case by  $\nu$  and therefore do not have an unvalued case feature to check with T. Therefore, an uninterpretable absolutive case feature on T in a transitive clause is not checked, and the derivation crashes.

In intransitive clauses, however, T must have a case feature; otherwise, the unvalued case feature of the absolutive, which is not only unvalued but also uninterpretable, will go unvalued and unchecked and the derivation

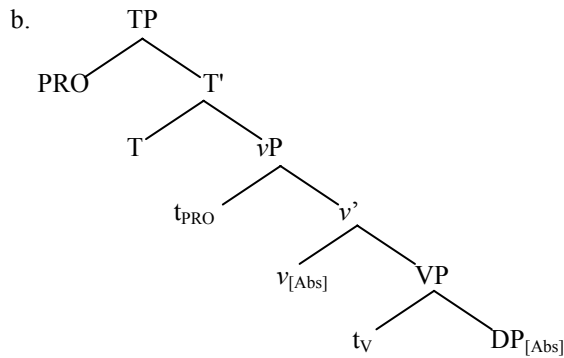
<sup>3</sup> I am assuming the late insertion model of Distributed Morphology, as proposed by Marantz (1991), Halle and Marantz (1993), among many others. More will be said about this model in Section 5.

will crash. Therefore, the derivation converges exactly when T has an absolutive case feature in intransitive clauses.

The analysis of *v*-type ergativity presented above accounts for the subject properties observed in Section 3 in the following ways. In transitive clauses, it is the ergative DP which binds reflexives, because it resides in the highest A-position in the clause and c-commands all other arguments. In an antipassive, the external argument is assigned absolutive case by T, but it still resides in its base position and therefore can bind a reflexive inside VP. Ergative DPs function as imperative and hortative addressees, by virtue of the fact that they are external arguments.

The most interesting fact concerns nonfinite embedded clauses, particularly the availability of absolutive case for an object. This is accounted for in the analysis above, since it is *v* which assigns absolutive case in transitive clauses and not T.

- (25) a. Tagalog  
 Bina-balak ni Maria-ng  
 Tr.Prog-plan Erg Maria-Lk  
 [PRO tulung-an si Pedro]  
 (Erg) help-App Abs Pedro  
 “Maria is planning to help Pedro.”



## 5 Person-based Split in Case-marking

The type of split-ergativity in Dyirbal must be treated differently from Warlpiri. Here, the split is manifested entirely in the case-marking system, with 1<sup>st</sup> and 2<sup>nd</sup> person pronominal arguments assigned nominative and accusative case, and 3<sup>rd</sup> person arguments marked ergative and absolutive.

- Dyirbal (Dixon 1994:161)
- (26) a.      *Nana*    *n<sup>y</sup>urra-na*      *bura-n*  
                  we.Nom you.Pl-Acc      see-Nonfut  
                  “We saw you all.”
- b.      *Numa*              *yabu-Ngu*      *bura-n*  
                  father.Abs          mother-Erg      see-Nonfut  
                  “Mother saw father.”

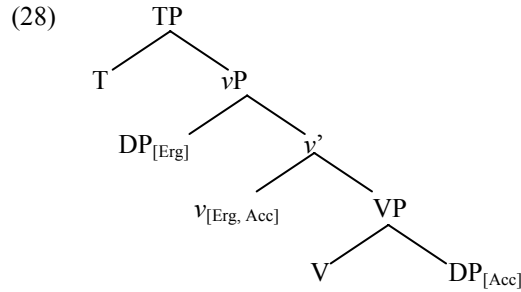
The problem for the analysis of case-marking proposed in Section 4 is that absolutive case is assigned to both the absolutive and accusative objects in (26). Likewise, ergative case is assigned to both the ergative and nominative subjects in transitive clauses. Therefore, the proposal in Section 4 must be revised. First, note that there are three morphological cases for subjects and objects in Dyirbal (absolutive and nominative take the same form).

- (27) Summary of Dyirbal Person Split
- |  |                   |
|--|-------------------|
| 3 <sup>rd</sup> person:                  | Erg = <i>-Ngu</i> |
|  | Abs = NULL        |
| 1 <sup>st</sup> /2 <sup>nd</sup> person: | Nom = NULL        |
|  | Acc = <i>-na</i>  |

The first step, then, is to add a case feature to the inventory of cases assigned by T and  $\nu$ . To this end, I adopt part of Legate’s (2003) analysis of case assignment in Warlpiri.<sup>4</sup> The key aspect of this proposal is that the structural cases assigned by T and transitive  $\nu$  are distinct. The case feature assigned by T remains absolutive, but the one carried by transitive  $\nu$  is accusative. Inherent ergative case is still assigned by transitive  $\nu$  to its specifier.

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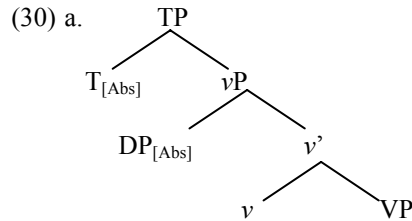
<sup>4</sup> I do not, however, adopt every aspect of Legate’s proposal. One aspect I do not adopt is her idea that absolutive (nominative) case is always available on T, even in transitive clauses, when it is not assigned to a DP. This has the unattractive result of allowing an uninterpretable feature to survive until Spell-Out.



Prior to Spell-Out, the subject and objects in (26) will have the following case features.

- (29) a.      Nana<sub>[Erg]</sub> n<sup>y</sup>urra<sub>[Acc]</sub>      bura-n  
               we        you.Pl                see-Nonfut  
               “We saw you all.”
- b.      Numa<sub>[Acc]</sub>        yabu<sub>[Erg]</sub>        bura-n  
               father        mother-Erg      see-Nonfut  
               “Mother saw father.”

In an intransitive clause, *v* has no case feature, so T must assign absolutive case to the single argument.



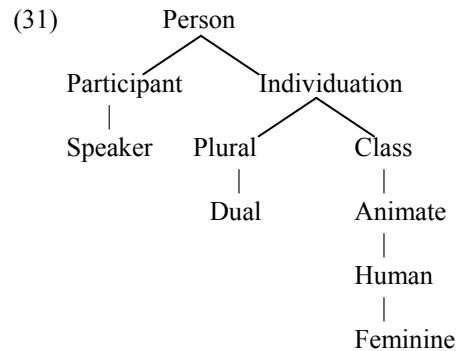
- b.      yabu<sub>[Abs]</sub> banaga-n<sup>y</sup>u  
               mother return-Nonfut  
               “Mother returned.”
- c.      Nana<sub>[Abs]</sub>        banaga-n<sup>y</sup>u  
               we        return-Nonfut  
               “We returned.”

The case features cannot be spelled out directly. This would result in all transitive objects being marked accusative and all transitive subjects taking the ergative suffix. This potential problem can be circumvented, however, by assuming late insertion within the framework of Distributed

Morphology. Recall first that 1<sup>st</sup> and 2<sup>nd</sup> person form a natural class, in that these are marked according to an accusative pattern, which is distinct from 3<sup>rd</sup> person, which follows an ergative pattern. This grouping is naturally captured in recent approaches to the organization of morphosyntactic features in Distributed Morphology, which views these features as being arranged according to a geometry.

Feature Geometry

(Adapted from Harley (1994), Harley & Ritter (2002))



This geometry groups 1<sup>st</sup> and 2<sup>nd</sup> person together under ‘participant’. ‘Speaker’ represents 1<sup>st</sup> person; 3<sup>rd</sup> person is represented by the absence of the ‘participant’ node and is therefore treated as a default. The morphological forms are inserted according to the following vocabulary items.

(32) Vocabulary Items

[Case:Acc, Part] ⇔ *-na*

[Case:Erg, Part] ⇔ NULL

[Case:Erg] ⇔ *-Ngu*

[Case] ⇔ NULL

The vocabulary items are referenced in the order given. This ensures that the more marked forms are spelled out first, followed by the default forms. Therefore, 1<sup>st</sup> and 2<sup>nd</sup> person objects will be given the accusative suffix *-na*. 1<sup>st</sup> and 2<sup>nd</sup> person subjects will be treated as nominative, which is null. All other transitive subjects will take the ergative suffix *-Ngu*. The remaining subjects and objects will be unmarked, as the default absolutive or nominative case.

The feature geometry in effect subsumes animacy hierarchies like those proposed by Silverstein (1976) and Dixon (1994). Silverstein’s insight is

that 1<sup>st</sup> and 2<sup>nd</sup> person appear most naturally in subject position and take unmarked forms in this role. It is less natural for them to appear in object position, however, so here they take a marked form. 3<sup>rd</sup> person makes a more natural object, but is marked when functioning as subject.

Dixon revises Silverstein's generalization into the following continuum, which states that 1<sup>st</sup> and 2<sup>nd</sup> person pronouns are most likely to show nominative/accusative case-marking, while NPs at the other end of the continuum more typically follow an ergative/absolutive pattern.

(33) Nominal Hierarchy (Dixon 1994:85)

1<sup>st</sup>/2<sup>nd</sup> Pers Pro    3<sup>rd</sup> Pers Pron    Proper N    Common N  
*Nom/Acc marking* ←-----→ *Erg/Abs marking*

Replacement of these functional notions with the feature geometry in (31) further accounts for splits of the type exhibited by another Pama-Nyungan language Djapu. In Djapu, not only pronouns, but also human NPs are marked nominative/accusative. This is accounted for by the geometry in (31), since human is isolated as a natural class, as opposed to nonhuman, which is represented by the absence of the human node.

In the transitive clause in (34a), the 3<sup>rd</sup> person subject takes ergative case, while the 3<sup>rd</sup> person object takes absolutive. The intransitive clause in (34b) shows null absolutive marking on a 3<sup>rd</sup> person subject. In (34c), the subject pronoun has null nominative case, while the human NP object takes the accusative suffix.

Djapu (Morphy 1983:37)

- (34) a.    bala    *Nayi*    *dhungurrk*  
 then    3s.Abs    nape.Abs  
           wutthu-n                            yurru    **galka-y'**  
           hit-UNM                            Fut    sorcerer-Erg  
 "Then the sorcerer hits (him) on the nape of the neck."
- b.        *Nayi*    *mayawa*            gal'-kalyu-n  
 3s.Abs    lizard.Abs            crawl-Redup-UNM  
           *wäyin*  
           animal.Nom  
 "A frill-necked lizard was crawling along."
- c.        *nhe-ny*                            yurru    **djamarrkuli-n'**    *gä-ma*  
 2s.Nom-PRO    Fut    children-Acc    bring-UNM  
 "You will bring the children."

The feature geometry is therefore more explicit than former animacy hierarchies. The geometry groups 1<sup>st</sup> and 2<sup>nd</sup> person into a natural class,

while treating 3<sup>rd</sup> person as the default. Animate and Human are also grouped as natural classes and are treated as more marked than inanimate.

## 6 Syntactic Ergativity

In this section, I briefly propose an account of the main characteristic of syntactic ergativity: the absolutive restriction on A'-extraction. As discussed in Section 3, only absolutive DPs are eligible to undergo A'-movement in syntactically ergative languages.

- (35) a. W. Greenlandic Eskimo (Manning 1996:84)
- |                                |           |                  |
|--------------------------------|-----------|------------------|
| nanuq                          | Piita-p   | tuqu-ta-a        |
| polar.bear.Abs                 | Piita-Erg | kill-Tr.Part-3sg |
| “a polar bear killed by Piita” |           |                  |
- b. \*angut                      aallaat                      tigu-sima-sa-a
- |                            |         |                      |
|----------------------------|---------|----------------------|
| man.Abs                    | gun.Abs | take-Perf-Rel.Tr-3sg |
| “the man who took the gun” |         |                      |

A straightforward analysis of this restriction is readily available, given the status of  $vP$  as a phase and the Phase Impenetrability Condition (Chomsky 2001b:5).

(36) Phase Impenetrability Condition (PIC)

The domain of a phase head is not accessible to operations, but only the edge is.

Specifically, only the head and specifier positions of  $vP$  are potential launching sites for movement to [Spec, CP] or beyond the clause. This means that VP-internal material must also pass through one of these positions, before leaving  $vP$ . Given that movement within Minimalist theory is always feature-driven,  $v$  must have an appropriate feature, typically an EPP feature, to draw a VP-internal constituent to its outer specifier. From this position in the edge of  $vP$ , the constituent in question is now accessible to a feature which will attract it to the next phase edge, i.e. [Spec, CP]. Direct movement from within VP to [Spec, CP] would violate the PIC.

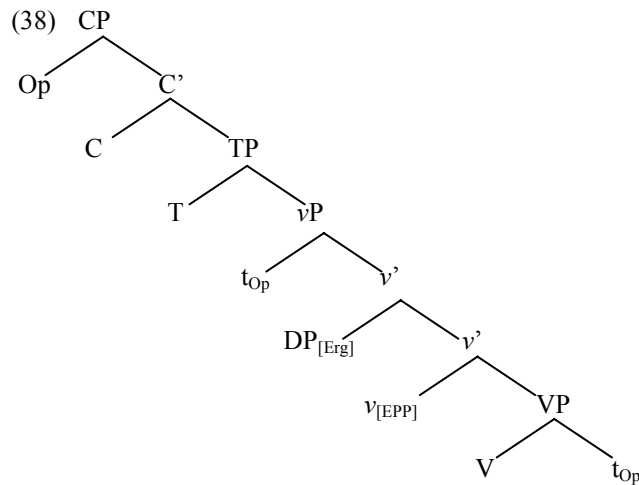
It is assumed for English that EPP features are generated on  $v$  any time they are needed to facilitate movement. What I propose (see Aldridge 2004, 2005 for additional discussion) for syntactically ergative languages is that the appearance of EPP features on  $v$  is restricted.



(37) Transitivity and EPP

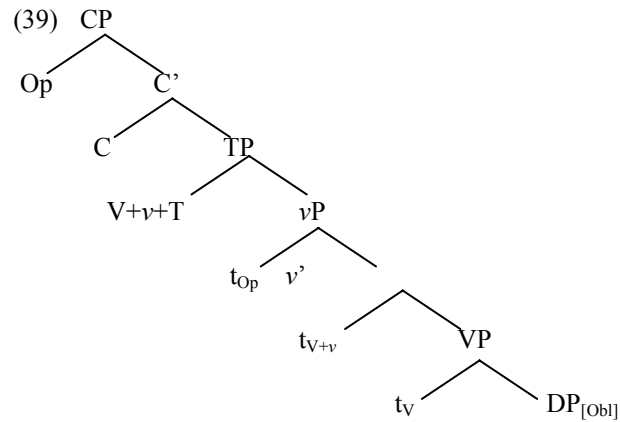
- ⇒ Transitive  $v$  has an EPP feature, drawing the absolutive DP to its outer specifier.
- ⇒ Intransitive, including antipassive,  $v$  has no EPP feature.

Extraction from a transitive clause is accounted for as follows. The EPP feature on transitive  $v$  attracts the VP-internal absolutive to the  $vP$  phase edge, making it the closest DP to C and ensuring that it is the DP which will be able to undergo A'-movement to [Spec, CP].



In an antipassive – which is intransitive –  $v$  does not have an EPP feature, so the DP merged in [Spec,  $vP$ ] is now the closest DP to C. A VP-internal DP cannot be attracted without violating the Phase Impenetrability Condition. But the external argument, which is base merged in a specifier of  $v$  is eligible, accounting for the fact that agent extraction is possible only in antipassives.<sup>5</sup>

<sup>5</sup> Extraction of an unaccusative subject is also direct, from inside VP to [Spec, CP]. Chomsky (2000, 2001a, 2001b) that unaccusative  $vP$  is a weak phase. Direct extraction from the domain of a weak phase does not violate the PIC.



The absolutive pivot in clausal coordination is accounted for similarly, assuming that zero-pronominalization in the second conjunct is fed by topicalization.

## 7 Conclusion

In this paper, I have presented an analysis of morphological and syntactic properties of  $v$ -type ergative languages. The most salient characteristic of this type of ergativity is that it is  $v$  which assigns case to absolutive objects in transitive clauses, while T assigns case to absolutives in intransitive contexts. This division of labor between the two functional heads in assigning absolutive case mirrors the non-uniform behavior of absolutive DPs with respect to subject and object properties.

Distinguishing transitive objects from both transitive and intransitive subjects is also what underlies the analysis of NP split-ergativity. Nominative/accusative agreement in Warlpiri is realized by copying subject  $\phi$ -features to T and object  $\phi$ -features to  $v$ , which essentially amounts to a direct mapping from argument structure to agreement and therefore need not be considered an aberrant pattern, even in an otherwise ergative language. The distinction between transitive and intransitive absolutives also plays a crucial role in accounting for the person-based split in Dyirbal, specifically by allowing for the assignment of three morphologically distinct cases. The feature geometry assumed in Distributed Morphology then isolates 1<sup>st</sup> and 2<sup>nd</sup> person and allows them to be treated distinctly from 3<sup>rd</sup> person in the morphological component.

The special role of transitive  $v$  is also seen in the account of the absolutive restriction on A'-extraction. EPP features can be merged only on

transitive (and not antipassive) *v*, with the result that only transitive objects and intransitive subjects are allowed to undergo A'-movement.

## 8 References

- Aldridge, E. 2004. *Ergativity and Word Order in Austronesian Languages*. Ph.D. dissertation, Cornell University.
- Aldridge, E. 2005. Phase Theory Account of Absolutive Extraction in Tagalog. *MIT Working Papers in Linguistics 49: Perspectives on Phases*, ed. M. McGinnis and N. Richards, 1-28.
- Anderson, S. 1976. On the Notion of Subject in Ergative Languages. *Subject and Topic*, ed. C. Li, 3-23. New York: Academic Press.
- Bittner, M. 1994. *Case, Scope, and Binding*. Dordrecht: Kluwer Academic Publishers.
- Bittner, M. and K. Hale. 1996. The Structural Determination of Case and Agreement. *Linguistic Inquiry* 27:1-68.
- Bobaljik, J. 1993. On Ergativity and Ergative Unergatives. *MIT Working Papers in Linguistics 19: Papers on Case and Agreement II*, 45-88.
- Campana, M. 1992. *A Movement Theory of Ergativity*. Ph.D. dissertation, McGill University.
- Chomsky, N. 2000. Minimalist Inquiries. *Step by Step: Essays in Minimalist Syntax in Honor of Howard Lasnik*, ed. Martin et al., 89-155. Cambridge, MA: MIT Press.
- Chomsky, N. 2001a. Derivation by Phase. *Ken Hale: A Life in Language*, ed. M. Kenstowicz, 1-52. Cambridge, MA: MIT Press.
- Chomsky, N. 2001b. Beyond Explanatory Adequacy. *MIT Occasional Papers in Linguistics 20*.
- Craig, C. 1977. *The Structure of Jacalteco*. Austin: University of Texas Press.
- Dixon, R.M.W. 1972. *The Dyirbal Language of North Queensland*. Cambridge: Cambridge University Press.
- Dixon, R.M.W. 1994. *Ergativity*. Cambridge University Press.
- Halle, M. and A. Marantz. 1993. Distributed Morphology and the Pieces of Inflection. *The View from Building 20*, ed. K. Hale & J. Keyser, 111-176. Cambridge, MA: MIT Press.
- Harley, H. 1994. Hug a Tree: Deriving the Morphosyntactic Feature Hierarchy. *MIT Working Papers in Linguistics 21: Papers on Phonology and Morphology*, ed. A. Carnie & H. Harley, 289-320.
- Harley, H. and E. Ritter. 2002. Person and Number in Pronouns: A Feature-Geometric Analysis. *Language* 78.3:482-526.
- Laka, I. 1993. Unergatives that Assign Ergative, Unaccusatives that Assign Accusative. *MIT Working Papers in Linguistics 18, Papers on Case and Agreement I*, 149-172.

- Larsen, T. W. and W. M. Norman. 1979. Correlates of Ergativity in Mayan Grammar. *Ergativity: Towards a Theory of Grammatical Relations*, ed. F. Plank, 347-370. New York: Academic Press.
- Legate, J. 2003. *Warlpiri: Theoretical Implications*. Ph.D. Dissertation, MIT.
- Levin, J. and D. Massam. 1985. Surface Ergativity: Case/Theta Relations Reexamined. *Proceedings of NELS 15*, ed. S. Berman, J. Choe, J. McDonough, 286-301.
- Manning, Christopher. 1996. *Ergativity: Argument Structure and Grammatical Relations*. Stanford: Center for the Study of Language and Information.
- Marantz, A. 1991. Case and Licensing. In *Proceedings of ESCOL*, 234-253.
- Morphy, F. 1983. Djapu, A Yolngu Dialect. *Handbook of Australian Languages*, vol. 3, ed. R.M.W. Dixon and B.J. Blake, 1-188. Canberra: ANU Press.
- Murasugi, K. G. 1992. *Crossing and Nested Paths: NP Movement in Accusative and Ergative Languages*. Ph.D. dissertation, MIT.
- Payne, T. E. 1982. Role and Reference Related Subject Properties and Ergativity in Yup'ik Eskimo and Tagalog. *Studies in Language* 6, 1:75-106.
- Silverstein, Michael. 1976. Hierarchy of Features and Ergativity. *Grammatical Categories in Australian Languages*, ed. R.M.W. Dixon, 112-171. Canberra: Australian Institute of Aboriginal Studies.
- Ura, Hiroyuki. 2000. *Checking Theory and Grammatical Functions in Universal Grammar*. New York: Oxford University Press.