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Generative approaches to ergativity

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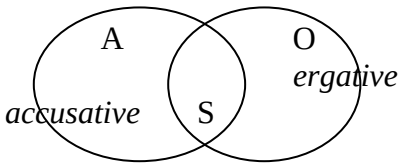
Abstract

This paper surveys the principal Generative syntactic analyses which have been proposed for ergativity, found primarily in Inuit, Austronesian, Mayan, and Pama-Nyungan language families. The main puzzle for Generative Grammar is how to analyze the behavior of ergative and absolutive arguments in terms of the grammatical functions of subject and object. I show in this paper that early approaches tend to treat the absolutive uniformly as a subject or an object, while later analyses move toward disassociating case from grammatical function. Descriptively speaking, this paper identifies two types of morphological ergativity, differing in how absolutive case is assigned. Morphological ergativity is also distinguished from syntactic ergativity, which is characterized primarily by a restriction that only absolutives can undergo A'-movement. In other aspects of the grammar, ergativity is not strikingly different from accusativity.

1. Introduction

Dixon (1979, 1994) proposes that the fundamental difference between accusative and ergative languages is the way in which primitive grammatical roles are aligned with respect to certain morphological and syntactic characteristics. The primitives Dixon identifies are: transitive subject (A), transitive object (O), and intransitive subject (S). In accusative languages, A and S roles share certain properties, while in ergative languages it is S and O which pattern together.

(1)



On the morphological level, this pattern is observed in the case-marking. In accusative languages, transitive and intransitive subjects receive one type of marking, while the object in a transitive clause is marked differently. For example, in Japanese, subjects are marked with *ga* nominative case and objects with *o* accusative case.

Japanese

(2)a. Hanako=*ga* kita.

Hanako=NOM[1] came

"Hanako came."

b. Hanako=*ga* Taro=**o** hihan-sita.

Hanako=NOM Taro=ACC criticize-did

"Hanako criticized Taro."

In an ergative language, S and O are marked alike. This is the absolutive case. A arguments take a distinct marking, referred to as ergative. In the Pama-Nyugan language Dyirbal absolutive case is phonologically null; the ergative case is realized as the suffix *-nggu*.

Dyirbal (Dixon 1994:161)

(3)a. yabu banaga-n^{y}u

mother.ABS return-NONFUT

"Mother returned."

b. nguma yabu-**nggu** bura-n

father.ABS mother-ERG see-NONFUT

"Mother saw father."

Since absolutive case appears on subjects in intransitive clauses but on semantic objects in transitive clauses, one may wonder how to analyze absolutive arguments in terms of grammatical function. The most common approach is to treat the absolutive as a subject, even when absolutive case appears on a semantic object. Indeed, in syntactically ergative languages, absolutives exhibit certain behavior which has been attributed to subjects in accusative languages. This is particularly true of Dyirbal. Dixon shows that it is only absolutives in Dyirbal behave like subjects in control and clausal coordination contexts. The object absolutive is the controlled gap in (4a) and the pivot in the coordination example in (4b).

(4)a. nguma banaga-n^{y}u [PRO yabu-nggu bura-li]

father.ABS return-NONFUT(ABS) mother-ERG see-PURP

"Father returned in order for mother to see (him)." (Dixon 1994:168)

b. [nguma [yabu-nggu buran] [banagan^{y}u]]

father.ABS mother-ERG saw returned

"Mother saw father and (father) returned." (Dixon 1994:155)

This contrasts clearly with the situation in an accusative language, in which the shared constituent is the subject of both clauses.

(5)a. Mother returned in order [PRO to see father].

b. *Mother returned in order (for) [father to see PRO].

c. Mother saw father and returned. (Mother returned.)

A much more widely distributed feature of syntactic ergativity is the restriction that only absolutives are able to undergo A'-movement operations such as relativization. This restriction is found not only in Dyirbal but also in Inuit, Mayan, and Austronesian ergative languages. In the following example, O is relativized in (6a) and S in (6b)[2].

Dyirbal

(6)a. palan jukumpil [___ ngaja purangu] nyinanyu

there. ABS woman. ABS 1S.NOM see. REL.ABS sit-NONFUT

"The woman whom I am watching is sitting down." (Levin 1983:282)

b. nguma$_i$ [___ banaga-ngu] yabu-nggu bura-n

father.ABS (ABS) return-REL.ABS mother-ERG see-NONFUT

"Mother saw father, who was returning." (Dixon 1994:169)

The A argument cannot be directly relativized. In order to extract a transitive subject, the embedded verb must have the antipassive suffix *–nga*. An antipassive is semantically transitive in that there is a theme or patient argument of the verb. However, it is formally intransitive; the object is not marked absolutive but rather has oblique case. In Dyirbal this case is dative. The external argument is treated as an S and can be extracted.

Dyirbal (Dixon 1994:170)

(7) yabu$_i$ [e_i bural-nga-ngu nguma-gu] banaga-nyu

mother.ABS see-AP-REL.ABS father-DAT return-NONFUT

"Mother, who saw father, was returning."

According to the Accessibility Hierarchy for Relativization proposed by Keenan and Comrie (1977), if a language allows only one grammatical relation to undergo relativization, then it is subjects which can relativize. To the extent that this hierarchy can be applied to ergative languages, the restriction that only absolutives can undergo relativization can be understood as evidence of the subjecthood of absolutves.

When discussing ergativity, it is necessary to distinguish morphological from syntactic ergativity. Morphological ergativity refers to the case marking pattern illustrated in (3). Languages with morphological ergativity but not syntactic ergativity pattern with accusative

languages with regard to constructions like those illustrated in (4). Australian languages of this type include Warlpiri and Walmatjari. A number of Polynesian languages, such as Niuean and Tongan, also display ergativity only in the case-marking system. This is also the case with Papuan languages such as Enga. In split-ergative languages such as Hindi, ergativity does not extend to syntactic operations. Syntactic ergativity has primarily been reported for Dyirbal, Mayan languages, Inuit languages, and certain of the Austronesian languages.

In this paper, I review the major approaches to ergativity which have been posited in the Generative syntactic tradition (Chomsky 1981, 1986, 1991, 1995, 2001, and others). We will see that early approaches attempted to capture the syntactic behavior of absolutive and ergative arguments by analyzing these uniformly as either subjects or objects. Later approaches are able to capitalize on technical developments in the theory which allow for a richer approach to the mix of subject and object behavior of absolutive NPs, as well as a more subtle approach to the distinctions between ergative and accusative languages and also among different types of ergative language.

2. Absolutive as thematic subject

Given that absolutive NPs exhibit certain aspects of syntactic privilege in syntactically ergative languages, there is a tendency in Generative linguistics to identify absolutives as subjects. One early analysis is that proposed by Marantz (1981, 1984) and developed by Levin (1983). This approach analyzes absolutives as subjects, both at the syntactic level, as well as the level of argument structure. Specifically, Marantz and Levin propose that the assignment of semantic and grammatical roles is reversed in accusative and ergative languages. In accusative languages, semantic objects like themes, patients, and goals are treated as internal arguments, assigned

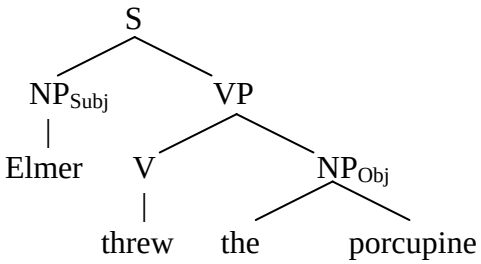
semantic roles directly by the verb within VP. Agents are treated as external arguments, in that they are structurally located outside the VP, and their semantic roles are assigned by the predicate as a whole.

(8)a. Accusative Language

agent roles: assigned by predicates

theme/patient roles: assigned by verbs

b.



In ergative languages, theta role assignment is reversed. Agent roles are assigned directly by the verb, while themes or patients are selected by the predicate as a whole.

(9) Ergative Language

agent roles: assigned by verbs

theme/patient roles: assigned by predicates

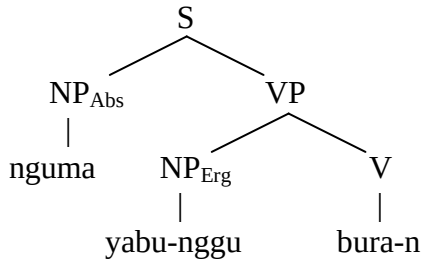
Thus, the base positions of agents and patients are the opposite of those found in accusative languages. In other words, in a transitive clause, the agent is treated as an object, while the O argument is treated as the subject.

(10)a. nguma yabu-**nggu** bura-n

father.ABS mother-ERG see-NONFUT

"Mother saw father."

b.



This inverse in semantic role assignment and structural position predicts that absolutives in ergative languages and subjects in accusative languages will exhibit parallel behavior, as exemplified in (4) and (5). Specifically, under the assumption that PRO and clausal coordination pivots only occur in subject position, it is predicted that subjects in accusative languages and absolutives in ergative languages can serve in these functions.

Marantz' analysis was developed primarily for Dyirbal, in which the ergative NP exhibits very little subject-like behavior. However, Mayan and Eskimo languages are not easily accounted for in this approach. As Anderson (1976) has shown, the vast majority of ergative languages are generally parallel to accusative ones in that it is the A argument which function syntactically as the subject of a transitive clause. For example, an ergative NP can antecede a reflexive, which may be the absolutive direct object or another VP-internal element. In the Quiche example, in (11), the ergative NP antecedes a reflexive in absolutive position.

Quiche Mayan (Larsen & Norman 1979:349)

(11) x-0-u-kamsa-j *r-iib'* **lee** **achih**

COMPL.3S.ABS-3S.ERG-kill-SUFF 3S-self the man

"The man killed himself."

Another subject property of ergative NPs is that they can function as imperative or hortative addressees, as in the following Yup'ik Eskimo example.

Yup'ik (Payne 1982:90)

(12) Ner-**ci**-u!

eat-2P-3S

"You all eat it!"

Unlike in Dyirbal, controlled PRO can occur in the ergative position in some of these languages. Note further that an overt absolutive object also appears in the embedded clause in the West Greenlandic example in (13).

W. Greenlandic (Manning 1996:124)

(13) Miiqqat [PRO Juuna ikiu-ssa-llu-gu] niriursui-pp-u-t.

children.ABS [(ERG) Juuna.ABS help-FUT-INF-3S] promise-IND-INTR-3P

"The children promised to help Juuna."

This fact was not unnoticed by Marantz and Levin, who treat such languages as morphologically but not syntactically ergative. Therefore, these languages are claimed to have the same underlying argument structure as accusative languages but differ from the latter in the case-marking pattern. Specifically, agents are merged outside VP and patients inside VP, as in accusative languages. However, the case-marking pattern is different: intransitive subjects and transitive objects receive absolutive case, while transitive subjects are given ergative case. With respect to syntactic processes, the absolutive O in a transitive clause is predicted to behave as an object, while the ergative A is predicted to behave as a subject.

Johns (1992) proposes another approach which base generates the absolutive argument in subject position. Johns argues that transitive clauses in the Inuit language Inuktitut are derived from nominalizations. Transitive verbs combine in the lexicon with a passive participle, *-ja* in the example in (14). This process creates a nominal stem with a link to the internal theta-role, in the sense of Di Sciullo and Williams (1987). Since the verb root has been nominalized, it does not project a VP and therefore cannot assign the internal theta-role directly to its complement. Rather, the internal theta-role is transmitted later to the absolutive argument in [Spec, Agr_V]. The agent argument is merged within a nominal projection and assigned genitive case[3]. The functional layer above $AgrP_N$ forms a clausal phrase. The nominalized verb, containing the passive participle and the link to the internal theta-role, undergoes head movement to Agr_V. This allows transmission of this theta-role, as well as assignment of case, to the absolutive argument in the specifier of Agr_V.

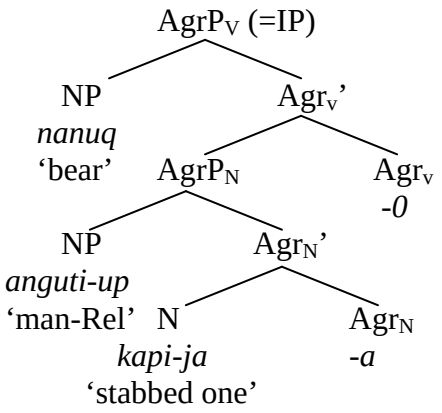
Inuktitut (Johns 1992:61)

(14)a. anguti-up nanuq kapi-ja-a-0

man-ERG bear.ABS stab-PPASS-PTCP-3S/3S

"The man stabbed the bear."

b.



Johns maintains that this analysis allows ergativity in Inuit to be treated as an epiphenomenon resulting from the fact that transitive verb roots project a nominal structure rather than a verbal one. There is still the question, however, of the subject properties of ergative arguments in Inuit languages. The solution which Johns proposes is that the ergative NP must undergo movement to a position above the absolutive NP. This is due to case requirements of this NP. Since its case-assigner Agr$_N$ has moved to Agr$_V$, the agent must also move to a projection of Agr$_V$ in order to receive case.

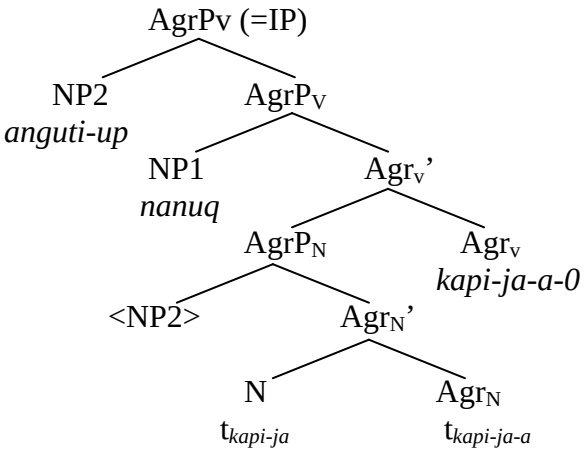
Inuktitut (Johns 1992:61)

(15)a. anguti-up nanuq kapi-ja-a-0

man-ERG bear.ABS stab-PPASS-PTCP-3S/3S

"The man stabbed the bear."

b.



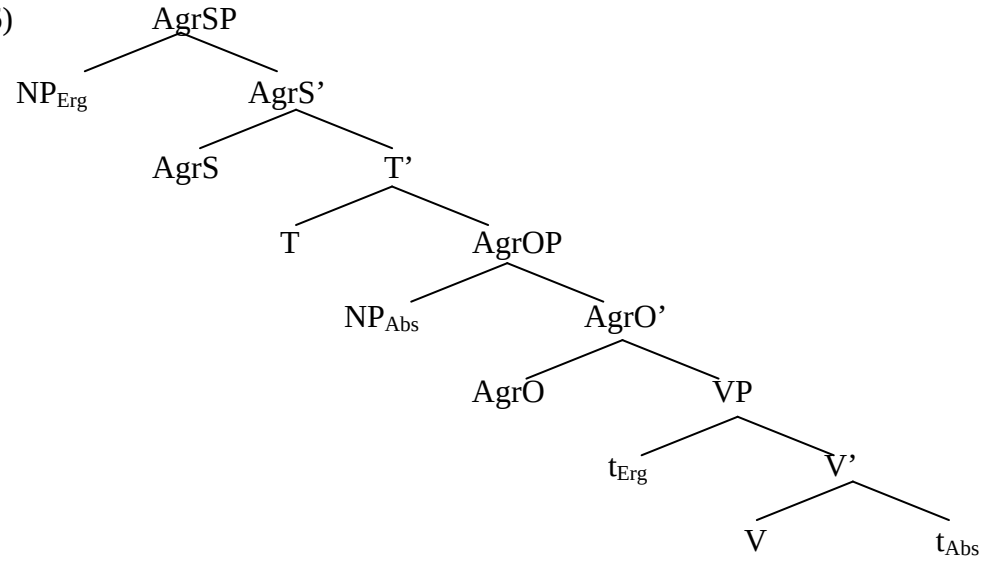
This movement places the ergative NP in a position from which it can c-command other arguments in the clause, for example allowing it to bind a reflexive pronoun. A disadvantage of this proposal, however, is that the ergative NP must move past the absolutive NP. Since both of these NPs are located in case-licensing A-positions, this movement violates Relativized Minimality, in the sense of Rizzi (1990). Another question is, naturally, whether the two-step derivation involving nominalization of a verb, followed by reverbalization in the syntax, is truly warranted for a wide variety of ergative languages.

3. Absolutive as grammatical object

In contrast to the approaches in section 2, Levin & Massam (1985), Bobaljik (1993), and Laka (1993) treat absolutive NPs as grammatical objects. These analyses were formulated after the general acceptance of the VP-internal subject hypothesis (Fukui & Speas 1986, Kitagawa 1986, Koopman & Sportiche 1991, Kuroda 1988, and others). According the VP-internal subject hypothesis, both internal and external arguments are selected within the VP. In this early Minimalist framework of Chomsky (1991), case is assigned[4] when NPs move to specifiers of functional case-assigning projections above the VP. This allows ergative and accusative

languages to be analyzed as having the same underlying structure and differing only in the assignment of case. In an accusative language, the subject moves to [Spec, AgrS] to receive nominative case. The object gets its case from AgrO. Bobaljik (1993) proposes for ergative languages that ergative case is assigned by AgrS and absolutive by AgrO.

(16)



In this way, absolutive internal arguments are treated as objects in terms of case-licensing as well. In intransitive clauses, the absolutive S argument will also receive its case from AgrO. Bobaljik proposes that the parameter which distinguishes ergative from accusative languages is the selection of AgrS or AgrO as the case which is available in an intransitive clause, i.e. when only one structural case is available.

(17) Obligatory Case Parameter (modified from Bobaljik 1993:50)

Accusative language: OC checked by AgrS

Ergative language: OC checked by AgrO

Hence, in accusative languages, the case associated with AgrS is the one assigned in intransitive clause, while in ergative languages, it is the case of AgrO which is assigned in intransitive clauses. This has the effect of deriving the accusative and ergative case-marking patterns. In accusative languages, S arguments have the case of subjects, while in ergative languages, S arguments have the case of objects.

This proposal accounts for the subject properties of the ergative nominal seen in (11) – (13). However, the subject-like properties of absolutives are not well-accounted for on the object-based approach. Here it is important to make clear what the 'subject' properties of absolutives are. The absolutive coordination pivot seen in (4b) is generally cited for Dyirbal. The restriction of PRO to absolutive position is found in some, but not all, ergative languages. What is common to all syntactically ergative languages is the A'-movement restriction, which is found in Dyirbal, as well as Mayan, Inuit, and Austronesian languages (Dixon 1979, 1994; Manning 1996; Campana 1996; Aldridge 2004; and others). We saw Dyirbal examples in (6) and (7) in section 1. (18) shows parallel facts in West Greenlandic. S and O can be relativized in (18a) and (18b), but A is not eligible in (18c).

W. Greenlandic (Manning 1996:84)

(18)a. miiraq$_i$ [e_i kamat-tuq]
child angry-REL.INTR
"the child that is angry"

b. nanuq$_i$ [Piita-p e_i tuqu-ta-a]

polar.bear.ABS Piita-ERG kill-TR.PART-3S

"a polar bear killed by Piita"

c. *angut$_i$ [e_i aallaat tigu-sima-sa-a]

man.ABS gun.ABS take-PERF-REL.TR-3S

"the man who took the gun"

Given this, we can say that the ergative NP functions as the subject of a transitive clause in most morphologically and syntactically ergative languages. But the syntactically ergative languages are subject to the restriction that only absolutives can undergo A'-movement operations like relativization. Dyirbal is, then, somewhat exceptional, in that the absolutive NP in this language has more subject properties than the ergative.

4. Mixed Pivot Approaches

Manning (1996) gives a clear and elegant summary of the grammatical properties exhibited by ergative and absolutive arguments in ergative languages. Citing earlier work on Philippine and Inuit languages by Schachter (1976) and Woodbury (1977), respectively, he points out that there is a split in subject properties in ergative languages between those sensitive to grammatical function and those sensitive to argument structure. At the level of argument structure, agents function as subjects with respect to control, binding, and imperative constructions. The subject properties at the level of grammatical structure are primarily the extraction restriction and a specific, wide scope interpretation. For a transitive clause, the agent is the subject in argument structure and the object in grammatical structure. The theme or patient is the object in argument

structure and the subject in grammatical structure. In other words, the ergative NP is the argument structure subject, and the absolutive NP is the grammatical structure subject.

(19)

Argument-structure	Grammatical-structure
agent	OBJECT
patient	SUBJECT

Touching briefly on the absolutive subject properties, we have already seen examples of the extraction restriction in (6), (7), and (18). As indicated by Bittner (1987, 1994, 1995) and Bittner and Hale (1996a, b), the absolutive NP in Inuit languages also receives a wide scope interpretation. Hence, the object in (20a) refers to a specific individual, outside of the scope of the modal. In contrast to this, oblique objects in antipassive constructions take narrow scope. The object with instrumental case in (20b) takes scope under the modal and is interpreted as nonspecific. Kalmar (1994), Cooreman (1994), Palmer (1994), Campbell (2000), and others make similar observations regarding the narrow scope, oblique status of the object in antipassive constructions.

West Greenlandic (Bittner 1987:20-1)

(20)a.

atuartut	**ilaat**	ikiur-tariaqar-pa-ra
of.students	one.of.them.ABS	help-must-TR.IND.1S.ERG/3S.ABS

b. **atuartut** **ilaan-nik** ikiuisariaqarpunga

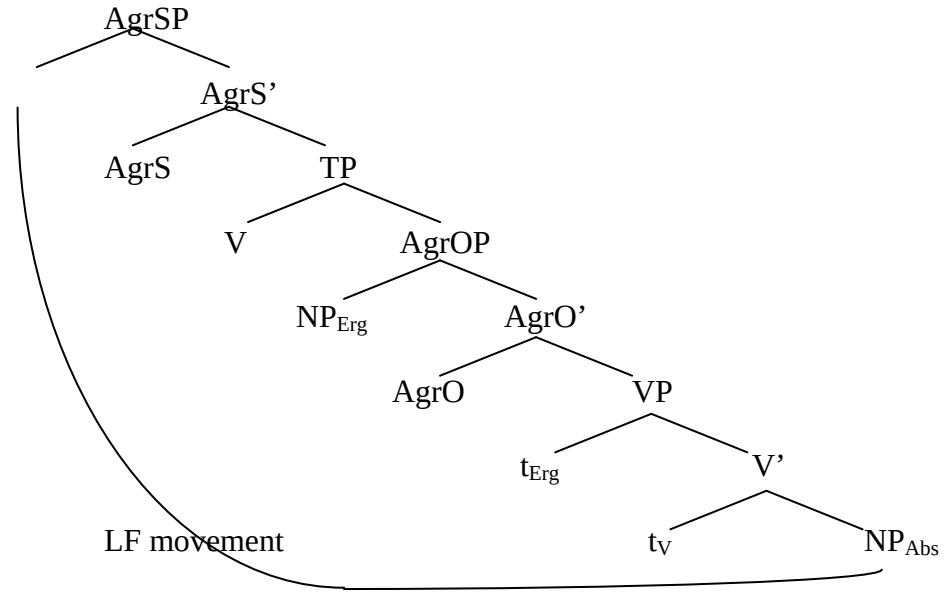
ikiur-(ss)i-tariaqar-pu-nga

of.students one.of.them-INST help-AP-must-INTR.IND-1S.ABS

"I must help one of the students."

In the Generative literature, a number of approaches have also been proposed with such a mix of subject properties in mind (Bok-Bennema 1991; Murasugi 1992; Campana 1992; Bittner 1994; Bittner & Hale 1996a, b; Manning 1996; Ura 2000). The VP-internal subject hypothesis plays a vital role in these approaches. This allows internal and external arguments to be merged into the structure according to the same thematic hierarchy as in accusative languages. But the case relations are the opposite of an accusative language. Take for example Murasugi (1992). Absolutive case is assigned by the higher AgrS head. Ergative case is by the lower AgrO.

(21)



Absolutive NPs move to the specifier of AgrS in order to receive case. However, this movement is covert in most ergative languages, taking place at LF and not in the overt syntax. Therefore, absolutive-initial word order is not manifested in surface order in these languages. Note that Mayan languages tend to have verb-initial word order. Basic word order in Inuit languages is generally ergative-absolutive-verb.

A possible question of Minimality arises with the derivation illustrated in (21), since the absolutive NP over the ergative NP on its way to [Spec, AgrS]. Murasugi avoids this problem by defining Minimality not in terms of positions targeted by movement but rather in terms of NPs available to undergo the relevant movement. In (21), movement of the external argument to [Spec, AgrO] is licit, since this is the closest available NP to this position. At LF, the absolutive will be the closest available NP to [Spec, AgrS]. This is because the ergative NP has already moved to [Spec, AgrO] and checked its case feature there, rendering it unavailable for movement to another case position.

Ergative NPs are predicted to act as subjects with respect to binding, since the absolutive NP remains in VP in overt syntax and is therefore c-commanded by the ergative NP at the relevant level of representation. LF movement of the absolutive NP to subject position, however, allows this argument to be interpreted in a structurally prominent position, affording it a wide scope interpretation, as in (20). Campana (1992) further proposes an account of the absolutive restriction on A'-extraction by claiming that the [Spec, AgrS] position is an A'-position. Consequently, Relativized Minimality will ensure that only the absolutive NP in [Spec, AgrS] is eligible to undergo further A'-movement to [Spec, CP].

Murasugi accounts for the additional subject properties of absolutives in Dyirbal by proposing that absolutive NPs move overtly to [Spec, AgrS]. Consquently, the absolutive NP c-

commands the ergative NP in the overt syntax. Coordination receives an analysis in which the coordinated constituents are TPs or AgrOPs, and the absolutive NP resides in the higher [Spec, AgrSP] position.

Dyirbal (Dixon 1994:155)

(22) [$_{AgrSP}$ nguma [$_{TP}$ yabu-nggu buran] [$_{TP}$ banagan^{y}u]]

father.ABS mother-ERG saw returned

"Mother saw father and (father) returned."

These approaches, however, make different predictions from what we observed in section 2 regarding embedded nonfinite clauses. Since absolutive case is associated with the subject case-assigning position, it is predicted to be unavailable in nonfinite clauses. Hence, PRO is predicted to occur in absolutive position. This prediction is borne out in Dyirbal. A variation on this restriction is found in the Austronesian language Seediq, as shown in (23). In Seediq, the precise generalization is that absolutive case is unavailable in nonfinite clauses. Therefore, nonfinite clauses are always intransitive or antipassive and PRO occurs in S absolutive position,. The embedded clause in (23a) is antipassive. It is ungrammatical for a nonfinite clause to be transitive with an overt absolutive NP, as in (23b). Craig (1977) makes a similar observation for Jacaltec Mayan.

Seediq (Aldridge 2004:114)

(23)a. M-n-osa [PRO m-ari patis taihoku] ka Ape.
INTR-PERF-go INTR-buy book Taipei ABS Ape
"Ape went to buy books in Taipei."

b. *M-n-osa [PRO burig-**un** taihoku ka patis] ka Ape.
INTR-PERF-go buy-TR Taipei ABS book ABS Ape
"Ape went to buy books in Taipei."

Murasugi's analysis, however, does not make the right prediction for languages in which controlled PRO can occur in ergative position, as in West Greenlandic in (13). More importantly, this analysis is unable to account for the fact that absolutive case is still available to assign to an overt NP in the embedded clause. Note that an analysis based on exceptional case-marking is also not possible, since in the following Tagalog example, absolutive case in the matrix clause is assigned to the matrix absolutive NP and is therefore not available for the embedded absolutive.

Tagalog (Aldridge 2004:105)

(24) Nag-ba-balak si Maria-ng [PRO tulung-an si Pedro]
INTR.PERF-RED-plan ABS Maria-LK (ERG) help-APP ABS Pedro
"Maria is planning to help Pedro."

Manning's (1996) analysis actually makes the correct prediction regarding languages like Tagalog and West Greenlandic, since control is regarded as an argument-structure property and

PRO is therefore predicted to occur in ergative A or absolutive S position. In the next section, I show how more recent Generative theory is able to account for both types of language by disassociating case assignment from grammatical relations and distinguishing the two types on the basis of the availability of structural case for an internal argument in nonfinite clauses.

5. Recent Minimalist approaches

In section 4 we have noted a consensus that absolutives should not be analyzed uniformly as subjects or objects in most ergative languages. What syntactically ergative languages have in common is the extraction restriction and possibly the wide scope interpretation for absolutives. But we have also seen that there are two types of morphological ergativity, differing on the basis of whether absolutive case is available in nonfinite contexts. In this section, I show how more recent Minimalist analyses proposed by Legate (2002, 2008) and Aldridge (2004, 2006, 2007b) are able to account for these characteristics by further breaking down the association between absolutives and grammatical function. This is made possible by the recent Minimalist approach to case-assignment, according to which, case is assigned[5] to NPs in situ under c-command, which eliminates the need for NPs to move to case positions.

5.1. Case as pure morphology

In this subsection, I introduce the approach taken by Legate (2002, 2008), who treats ergativity primarily as a surface morphological phenomenon. Specifically, Legate proposes that there is no 'absolutive' case assigned in the syntax. Rather, structural cases in ergative languages are assigned in the same way that they are in accusative languages: nominative by finite T and accusative by transitive *v*. The surface manifestation of the ergative-absolutive case pattern is

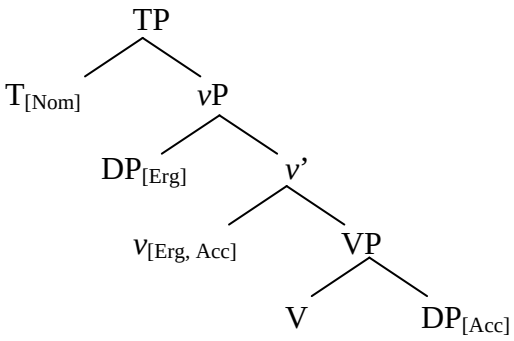
realized post-syntactically in the morphological component, where the two structural cases are spelled out as a single default form. There is, however, one feature of the syntax which distinguishes ergative from accusative languages. In ergative languages, transitive *v* consistently assigns inherent ergative case to its specifier, i.e. the external argument (Mahajan 1989; Woolford 1997, 2001, 2006; Legate 2002, 2008; and others). This, then, can be understood as the syntactic parameter which distinguishes ergative from accusative languages.

To proceed with an example, Legate focuses primarily on Pama- Nyugan languages like Warlpiri. In a transitive clause, the external argument receives inherent ergative case from *v*. The direct object is assigned structural accusative by *v*. Nominative case is also available on finite T. However, in a transitive clause it will be unassigned, because the case features of the two arguments have already been valued by *v*.

Warlpiri (Legate 2002:130)

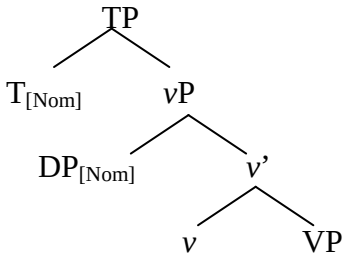
(25)a. Maliki-rli ngarrka yarlku-mu.
dog-ERG man bite-PAST
"A dog bit a man."

b.



In an intransitive clause, *v* does not have an accusative case feature. Intransitive *v* also does not assign ergative case. But since finite T has a nominative case feature, this can be assigned to the subject.

(26)



The ergatve-absolutive case-marking pattern is obtained in the morphological component at the time of vocabulary insertion. Working within the Distributed Morphology framework of Halle and Marantz (1993) and Marantz (1995), Legate proposes that the case markers are inserted in the morphological component according to the order in (27). The lexical and inherent cases are inserted first. Structural nominative and accusative are treated as the default, both realized as null. This means that there is no morphological form for nominative and accusative cases on DP[6]s in Warlpiri. The appearance of an ergatve-absolutive case-marking pattern in this language is obtained by inserting the same form for accusative (transitive object) and nominative (intransitive subject) NPs.

(27) Vocabulary Insertion (Legate 2008:59)

[Case:Ergative] ⇔ *-rlu/-ngku*

[Case:Dative] ⇔ *-ku*

[Case:Allative] ⇔ *-kurra*

[Case:Ablative] ⇔ *-ngurlu*

[Case:Locative] ⇔ *-rla/ngka*

[Case:Translative] ⇔ *-karda*

[Case] ⇔ NULL (= 'absolutive')

Warlpiri belongs to the type of language which allows absolutive objects in nonfinite clauses, as shown in (28). This is accounted for by the analysis of transitive clauses sketched in (25) since what appears morphologically as 'absolutive' case is actually accusative case assigned by transitive *v* in the syntax. The availability of this case is then unaffected by the finiteness of T.

Warlpiri (Legate 2003:133)

(28)	Ngarrka-patu-rlu	ka-lu-jana	puluku	turnu-ma-ni
	Man-Pauc-Erg	Pres.Imp-3p.Subj-3p.Obj	bullock	muster-Nonpast

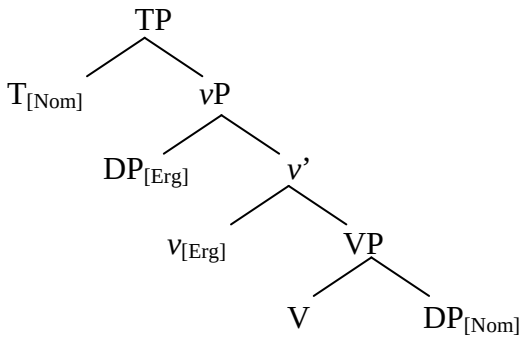
[karnta-patu-rlu **miyi** purra-nja-puru]

Woman-Pauc-Erg food.Abs cook-Infin-Tempc

"The men are mustering cattle while the women are cooking the food."

Regarding the type of language in which absolutive case is not available in nonfinite clauses, Legate (2008) proposes that *v* lacks the ability to assign accusative case in these languages. Therefore, the object is dependent on T for its case. In a transitive clause, this means that T will have to look past the ergative subject into the VP to assign the case feature. Legate claims that this is possible, since the ergative subject has already satisfied its case feature and therefore is not a potential intervener for case assignment between T and the object.

(29)



Returning to Legate's (2002, 2008) analysis of languages in which transitive *v* does have the ability to assign accusative case, this proposal has interesting consequences for split-ergativity. Split-ergativity refers to what appears to be a mixture of ergative and accusative characteristics in a single language. There are two main types of split-ergativity. The first type is a very common characteristic of Pama-Nyugan languages. In Dyirbal, third-person NPs are marked according to an ergative-absolutive pattern, as we have seen elsewhere in this paper.

Dyirbal (Dixon 1994:161)

(30)a. *yabu* banaga-n^{y}u

mother.ABS return-NONFUT

"Mother returned."

b. *Ŋuma* yabu-**Ngu** bura-n

father.ABS mother-ERG see- NONFUT

"Mother saw father."

But case-marking on 1st and 2nd person pronouns follows a nominative-accusative pattern. In (31), both intransitive and transitive subjects (S and A) appear in the null case-marked form. The transitive object O in (31c) takes the accusative suffix *-na*.

Dyirbal (Dixon 1994:161)

(31)a. *Ŋana* banaga-n^{y}u

we.NOM return- NONFUT

"We returned."

b. *n^{y}urra* banaga-n^{y}u

you.PL.NOM return- NONFUT

"You all returned."

c. *Ŋana* n^{y}urra-**na** bura-n

we.NOM you.PL-ACC see- NONFUT

"We saw you all."

Legate's (2002, 2008) analysis in which nominative and accusative cases have distinct values in the syntax allows for the morphological spell-out of the three morphological cases observed in (30) and (31). Legate proposes that case on 1st and 2nd person objects is realized as accusative, while case on 3rd person subjects is realized as ergative. Case on all other DPs, specifically 3rd person objects and all other subjects, will be spelled out with the default null case. Note that absolutive and nominative case in (30) and (31) are both morphologically null.

Such an approach seems to suggest that split-ergativity is purely a morphological manifestation and does not extend to syntactic processes. Indeed, this seems to be the case. In coordination examples with pronominal arguments, the shared argument is still S or O, regardless of the case-marking. Specifically, in (32), the understood subject of the second clause is the accusative-marked O of the first clause and not the nominative-marked A.

Dyirbal (Dixon 1994:162)

(32) [n^{y}urra **Nana-na** buran] [banagan^{y}u]

you.PL.NOM we-ACC saw returned

"You all saw us and we returned."

Beginning with Silverstein (1976), a cross-linguistic systematicity has been observed in the tendency of nominal arguments to exhibit a nominative-accusative or ergative-absolutive case pattern. As illustrated in (33), 1st and 2nd person pronouns and 3rd person animate nominals are more likely to be case-marked nominative-accusative, while those marked ergative-absolutive are more often found at the other end of this animacy hierarchy.

(33) Nominal Hierarchy (Dixon 1994:85)

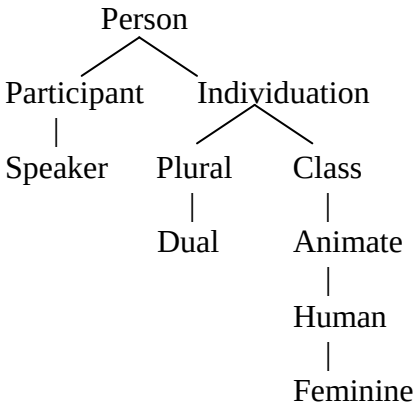
1st/2nd Person Pronoun Dem/3rd Person Pronoun Proper N Common N

Nom/Acc marking ←==========→ *Erg/Abs marking*

Legate's approach to case allows for a uniform analysis of case assignment while capturing the effects of the animacy hierarchy in the morphological component. Aldridge (2007a) suggests how this might be accomplished by structuring person and number features into a feature geometry along the lines of Harley (1994) and Harley and Ritter (2002).

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

(34)



This allows, for example, 1st and 2nd person to be isolated as a natural class under the node 'participant' and therefore targeted by the morphological for the spelling out of specific case forms. The same is true of animate NPs, which are ranked higher than inanimate ones.

The other type of split-ergativity is generally along tense/aspect lines. For example, in Hindi case-marking follows an accusative pattern in imperfective aspect and an ergative-

absolutive pattern in perfective aspect. Note the ergative suffix on the subject in (35b). Nominative, accusative, and absolutive forms are bare. Note further that the verb shows agreement with the nominative subject in (35a) and the absolutive object in (35b).

Hindi (Mahajan 1990:72-3)

(35)a. **raam** roTii khaataa thaa.
Ram(MASC).NOM bread(FEM) eat.IMP.MASC was.MASC
"Ram (habitually) ate bread."

b. raam-ne **roTii** khaayii thii.
Ram(MASC).ERG bread(FEM).ABS eat.PERF.FEM was.FEM
"Ram ate bread."

Generative approaches to this type of ergativity assume that the different case-marking patterns are conditioned by perfective aspect. Mahajan (1990) proposes that the perfective participle cannot case-license the object, forcing the object to be case-marked and trigger agreement like a subject. Davison (2004) and Bhatt (2005) propose that ergative case is licensed directly by the perfective aspect projection.

Languages with tense/aspect split-ergativity do not exhibit syntactic ergativity. Particularly notable is the lack of a restriction on A'-extraction. Agreement with the O argument in perfective clauses is also not evidence for syntactic ergativity. According to Legate (2008), *v* assigns ergative case to transitive subjects in perfective clauses. T can still register agreement with the object in VP, with the result that agreement is not necessarily a diagnostic for structural prominence.

5.2. Transitivity approach

One point not addressed by Legate (2002, 2008) is the question of syntactic ergativity. This is a primary focus of Aldridge (2004, 2007b, 2008), who puts forth an analysis of the absolutive restriction on A'-extraction, as well as the scope asymmetries between transitive and antipassive clauses. The crux of Aldridge's proposal is that transitive, but not intransitive *v* can carry an EPP feature in syntactically ergative languages. The effect of this constraint in recent Minimalist theory of Chomsky (2001) is to force absolutive objects to move to the outer edge of the *v*P, from which position they will be able to undergo further movement, specifically to the specifier of CP, as in *wh*-movement or relativization. They will also be interpreted in a position external to VP, thereby receiving wide scope, presuppositional interpretations.

Aldridge's analysis also differs from Legate (2002, 2008) in its approach to case. Principally, Aldridge (2004, 2007b, 2008) proposes that absolutive case is assigned directly by T or *v*. T assigns case in intransitive clauses; *v* does so in transitive clauses. In a transitive clause, *v* carries an absolutive case feature which it assigns to the direct object. Aldridge assumes with Legate (2002, 2008), Woolford (2006), and others that ergative case is inherent, assigned by transitive *v* to its specifier. Transitive *v* also carries an EPP feature, which draws the absolutive DP to its outer specifier, where it is visible to a probe in the next phase, e.g. a [wh] feature on C, as in the case of *wh*-movement. This will allow the absolutive DP to be extracted in cases of A'-movement[7].

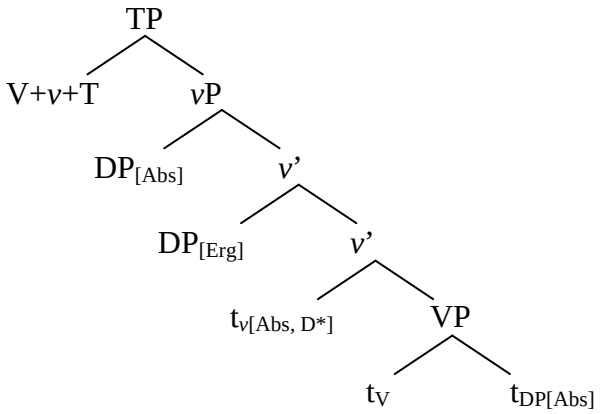
Tagalog (Aldridge 2007b)

(36)a. Ano ang b-**in**-ili ng babae?

what ABS TR.PERF-buy ERG woman

"What did Maria buy?"

b.



This also accounts for the wide scope interpretation of absolutive objects in transitive clauses. Since this DP resides outside of the VP at LF[8], if will receive a presuppositional, wide scope reading, as per Diesing's (1992) Mapping Hypothesis.

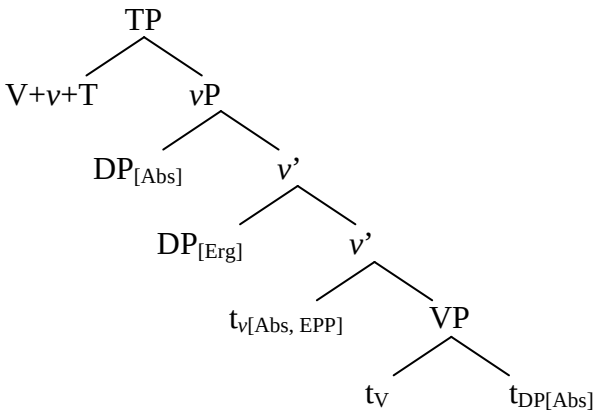
Tagalog (Aldridge 2008)

(37)a. B-**in**-ili ng babae *ang* *isda*.

-TR.PERF-buy ERG woman ABS fish

"The woman bought the/*a fish."

b.



Since the source of absolutive case is *v* in transitive clauses, absolutive case is still available in nonfinite clauses in this type of language. Indeed, in Tagalog and Inuit languages, controlled PRO can appear in the ergative subject position, while absolutive case appears on the object. Absolutive case is still available in a nonfinite clause, because it is assigned by *v* and therefore is not affected by the finiteness of T.

Tagalog (Aldridge 2004:105)

(38)	Nag-ba-balak	si	Maria-ng	[PRO	tulung-an	si	Pedro]
	INTR.PERF-RED-plan	ABS	Maria-LK	(ERG)	help-APP	ABS	Pedro

"Maria is planning to help Pedro."

In contrast, intransitive *v* carries neither an EPP feature nor a structural case feature. Hence, in an antipassive, the object is dependent on the lexical verb for inherent case, accounting for the appearance of oblique marking on objects in antipassives. Furthermore, the lack of an EPP feature forces the object to remain inside VP, where it undergoes Existential Closure at LF and receives a nonspecific, narrow scope interpretation. Absolutive case on the external argument is assigned by T.

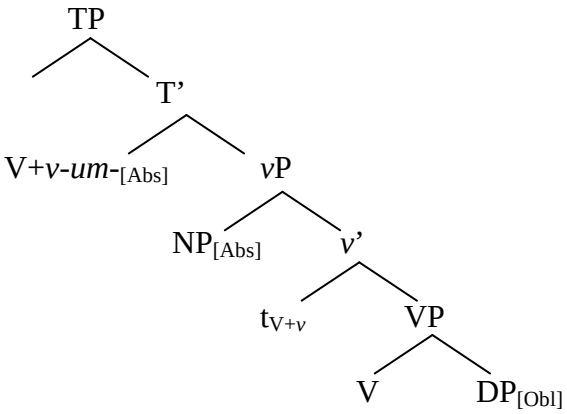
Tagalog (Aldridge 2004:99-100)

(39)a. B-um-ili ang babae ng isda.

-INTR.PERF-buy ABS woman OBL fish

"The woman bought a fish."

b.



Recall from the discussion of (7) in section 1 that a clause must be antipassivized in order for a transitive subject to be extracted. On Aldridge's analysis, this is accounted for because antipassive *v* is intransitive and therefore lacks an EPP feature. Consequently, the object will remain inside VP, with the result that the subject is the only NP in a specifier of *v*P and therefore eligible to undergo movement to [Spec, CP].

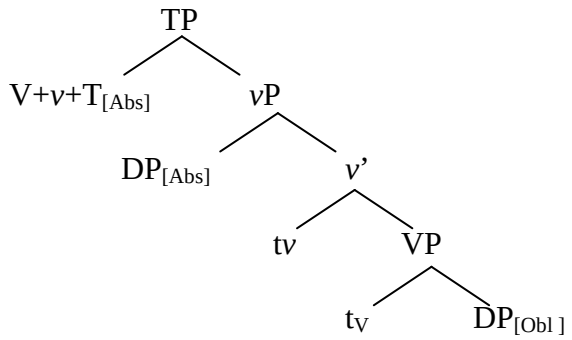
Tagalog

(40)a. Sino ang b-**um**-ili ng isda?

who ABS -INTR.PERF-buy OBL fish

"Who bought a/the fish?"

b.



A word is in order at this point regarding the interaction between T and *v* in absolutive case assignment. Aldridge (2008) proposes that case features on T and *v* are uninterpretable[9], meaning that they must be checked off in order for the derivation to converge. Therefore, there must be a one-to-one correspondence in the derivation between valued case features on functional heads and the DPs which need their case featured to be valued. Since transitive *v* assigns structural absolutive case to the internal argument and inherent ergative case to the external argument, T cannot enter the derivation with a case feature in a transitive clause. If it did, it would not be able to find a DP to check this feature off, since the case features of the external and internal arguments have already been satisfied in transitive clauses before T is merged into the structure. In an intransitive clause, however, since *v* has neither an absolutive nor an ergative case feature, the DP argument is dependent on T for case. Therefore, T must have a case feature in intransitive clauses. In this way, absolutive case can be assigned directly in the syntax, rather than just being treated as the morphological default. Aldridge's analysis further prevents the undesirable situation in which a case feature is present in the syntax but is not valued on an argument, as was required by Legate's analysis of transitive clauses, in which T carries a nominative case feature which is not valued on a DP.

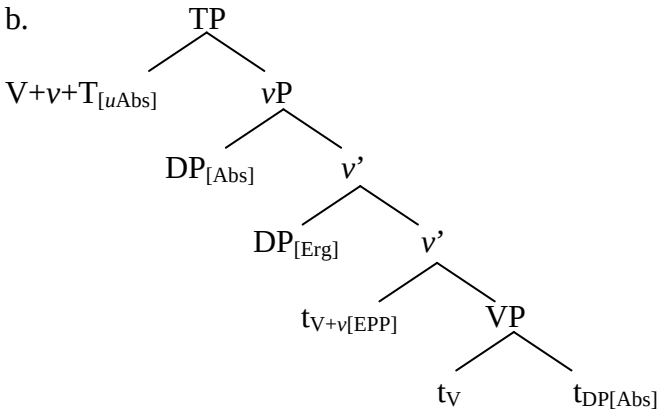
Regarding the second type of morphological ergativity, in which absolutive case is not available in a nonfinite clause, Aldridge (2004) also proposes that absolutive case is licensed

solely by T in these languages. Her approach is slightly different from Legate's, however. There is no need to force T to look past the ergative DP and assign case to the object inside VP, since the EPP feature on transitive *v* raises the absolutive object to the outer specifier of *v*P, where it becomes the closest goal DP to T which has a case feature to value.

Seediq (Aldridge 2004:113)

(41)a. Wada bube-**un** na Pihu ka dangi=na.
PERF hit-TR ERG Pihu ABS friend=3S.GEN
"Pihu hit his friend."

b.



Murasugi's (1992) analysis of Dyirbal can also be adapted to Aldridge's approach. The EPP feature on transitive *v* moves the object to the outer specifier of *v*. From here, it can be further attracted by an EPP feature on T, which moves the absolutive into [Spec, TP] subject position. The absolutive will then be outside the coordinated *v*Ps.

Dyirbal (Dixon 1994:155)

(42) [$_{TP}$ nguma [$_{vP}$ yabu-nggu buran] [$_{vP}$ banagan^{y}u]]

father.ABS mother-ERG saw returned

"Mother saw father and (father) returned."

In sum, the EPP feature on transitive *v* – and consequently the dislocation privilege of absolutive arguments – is considered by Aldridge to be the defining characteristic of syntactic ergativity. Furthermore, Aldridge does not treat the extraction privilege as a property of subjects, but rather deals with it in terms of constraints on A'-dislocation. This means that the relativization hierarchy proposed by Keenan and Comrie (1977) can, and should, be viewed in a different light. Keenan and Comrie themselves note that Dyirbal is an exception to the hierarchy if it is stated in terms of subjecthood. A possible amendment would be to say that the highest grammatical function in the hierarchy should be subject or absolutive[10].

Consequently, syntactic ergativity can be defined in terms of the dislocative and interpretive properties of absolutives. On this view, absolutives do not need to be analyzed as either subjects or objects. Rather, their mixture of subject and object properties can be reduced to their positions in the structure, an analysis which is made possible by the c-command approach to case assignment. This further allows other purported subject-like behavior – the distribution of PRO, for instance – to be reduced to morphological parameters, e.g. the availability of structural absolutive case in nonfinite clauses. The parameters which distinguish ergative from accusative languages can now be stated as follows. Morphological ergativity is defined by the uniform assignment of inherent case to the subject by transitive *v*, as proposed by Legate (2002, 2008). The types of morphological ergativity are distinguished in terms of

whether transitive *v* can assign structural case. Syntactic ergativity is characterized by the restriction of EPP features to transitive *v*, which affords absolutives a wide scope interpretation and allows this DP to undergo A'-movement, as claimed by Aldridge (2004, 2007b, 2008).

6. Conclusion and outstanding questions

To summarize the main conclusions of this paper, we have seen that the morphological and syntactic properties of ergative and absolutive arguments cannot be satisfactorily captured by a theory which equates case with grammatical function. Rather, as Anderson (1976), Manning (1996), Murasugi (1992), and others have pointed out, A and S arguments function as subjects in both accusative and ergative languages. The primary syntactic privilege enjoyed by absolutives is the restriction on A'-movement, which can be reduced to a constraint on A'-dislocation and need not be taken as evidence for the subjecthood of absolutives. Other properties of ergative and absolutive NPs are derived by the mechanisms which assign case.

These generalizations hold for the Mayan, Inuit, and Austronesian languages we have considered in this survey. Absolutives in Dyirbal do seem to behave like grammatical subjects. This, too, can possibly be accounted for by extending the analysis in section 4 so that Dyirbal absolutives move into the [Spec, TP] subject position. In the remainder of this section, I would like to discuss a few technical and typological issues posed by the claims discussed in section 5.

6.1. Subjects of nonfinite clauses

The first concerns the analysis of the distribution of PRO in nonfinite clauses. The availability of absolutive case in nonfinite clauses was discussed in section 5 as a diagnostic for the association of absolutive case with either T or *v*. The position of PRO itself was not treated in

detail. It was merely assumed that PRO appears in positions for which there is no case. Some clarification.is in order regarding the connection between PRO and case.

Recall that in one type of ergative language, PRO was claimed to occur only in absolutive position. Strictly speaking, this must be absolutive subject (S) position. PRO does not appear in transitive object (O) position. Consequently, nonfinite clauses must be intransitive in Seediq and Jacaltec Mayan, as discussed in section 4. Let us consider why this might be the case. It is cross-linguistically observed to be the case that PRO appears only in subject position in nonfinite clauses. This is accounted for by the PRO Theorum of Chomsky (1981), which states that PRO must be ungoverned. This ensures that PRO is never a direct object, since this position is governed by the verb.

(43)a. Mary wanted [PRO to see John].

b. *Mary wanted [John to see PRO].

The distribution of PRO is captured differently in recent Generative research. For instance, under the movement account of control put forth by Hornstein (2001), the PRO in (43a) would be a trace. 'Mary' would move from the embedded clause to matrix subject position, as shown in (44a). Movement of the embedded object would require movement over the embedded subject, which would invoke a Minimality violation.

(44)a. Mary wanted [t_{Mary} to see John].

b. *Mary wanted [John to see t_{Mary}].

Therefore, when PRO is restricted to absolutive position, as in languages like Seediq and Jacaltec, this refers to absolutives which are also subjects, in other words S and not O. The result is that nonfinite clauses containing PRO must be intransitive in these languages[11].

However, there is reason to believe that we must further sever the link between the distribution of PRO and the availability of case. If the availability of case were the sole factor determining the appearance of overt subjects as opposed to PRO, then we would expect to find nonfinite clauses with inherently case-marked ergative subjects, since their case is supplied by transitive *v* and not T. However, this is not the case. An overt ergative DP is not possible in the embedded clause in (45).

Tagalog

(45) Nag-ba-balak si Maria-ng [tulung-an (*ni Huan) si Pedro]
INTR.PERF-RED-plan ABS Maria-LK help-APP ERG Juan ABS Pedro
"Maria is planning for Juan to help Pedro."

What this suggests is that factors other than the availability of case contribute to licensing the appearance of overt DPs in subject position in nonfinite clauses. Interestingly, Sigurdsson (1991) discusses a similar problem in Icelandic. PRO also appears in the position of quirky case-marked subjects in Icelandic.

Icelandic (Sigurdsson 1991:329)

(46) Hana langar ekki til [að PRO leiðast].
Her.ACC wants not for to (DAT) bore
"She does not want to be bored."

Sigurdsson proposes that it is not case but rather lexical government which licenses the overt realization of nominal arguments. An analysis along these lines may also be appropriate for Tagalog. Overt subjects are permitted in Tagalog in exceptional case-marking contexts. But the case which appears on the subject is the one which would be expected if the embedded clause were finite. Therefore, the case on the embedded subject cannot be analyzed as assigned by the matrix *v*. Rather, transitive *v* in the matrix clause merely seems to license the overt realization of an independently case-marked DP. Thus, we see absolutive case in the intransitive clause in (47a) and ergative case in the transitive clause in (47b). Both of these DPs are exceptionally 'case'-marked by the *v* in the matrix clause.

Tagalog

(47)a. Bina-balak ni Maria-ng
TR.PROG-plan ERG Maria-LK
[makapag-aral **ang** **anak=niya** sa UP]
INTR-study ABS child=3S.GEN at UP
"Maria is planning for her child to study at the University of the Philippines."

b. Bina-balak ni Maria-ng

TR.PROG-plan ERG Maria-LK

[awit-in ng anak=niya ang pambansang awit].

Sing-TR ERG child=3S.ERG ABS national song

"Maria is planning for her child to sing the national anthem."

6.2. Strict locality

Another technical point concerns the strict view of locality assumed by the EPP account of the extraction restriction. Not only antipassive objects, but also ergative subjects are unable to undergo A'-movement in syntactically ergative languages.

W. Greenlandic (Manning 1996:84)

(48)a. $nanuq_i$ [Piita-p e_i tuqu-ta-a]

polar.bear.ABS Piita-ERG kill-TR.PART-3S

"a polar bear killed by Piita"

b. *$angut_i$ [e_i aallaat tigu-sima-sa-a]

man.ABS gun.ABS take-PERF-REL.TR-3S

"the man who took the gun"

It may be asked, then, if the EPP account does in fact prevent movement of the ergative DP, given that it is also located in a specifier of *v*P. Aldridge (2004) circumvents this problem by claiming that C additionally has a feature to attract a DP to its specifier. This yields the result that only the highest DP, i.e. the absolutive, can check this feature, circumventing the possibility

of the ergative DP moving to [Spec, CP]. Aldridge's justification for this claim is that absolutive arguments share many characteristics with topics, for example the tendency to be definite and presupposed.

Another possible way of preventing movement of ergative DPs over absolutive DPs is to assume a strict version of locality. Fox and Pesetsky (2005) claim that once the linear order has been established once within a particular domain, this order cannot be changed later in the derivation. Ko (2004) proposes that the relevant domain in languages like Korean is *v*P. This proposal could be adapted to Aldridge's analysis of A'-movement in syntactic ergativity by claiming that once the absolutive DP has moved over the ergative DP in *v*P, the ergative argument cannot undergo further movement over it.

6.3. Tense-aspect split-ergativity

A final question concerns the tense/aspect split. The purely morphological approach taken by Legate (2008) does not offer an explanation as to why ergative case-marking tends to occur in past or perfective contexts. Anderson (1977, 1988) proposes that this is (at least in some cases) the result of historical reanalysis. In Indic languages such as Hindi, the origin of the perfective is a passive participle. This passive form was eventually reanalyzed as active, but the case-marking pattern in which the internal argument receives the default nominative or absolutive case and the external argument takes the oblique suffix, has been preserved as an ergative-absolutive pattern.

[1] The abbreviations used in this article are as follows:

1s=first person singular

2p=second person plural

2s=second person singular

3p=third person plural

3s=third person singular

ABS=absolutive

ACC=accusative

AG=agent

AP=antipassive

APP=applicative

ASP=aspect

COMPL=completive

DO=direct object

ERG=ergative

FIN=finite

FUT=future

GEN=genitive

IND=indicative

INF=infinitive

INST=instrumental

INTR=intransitive

IO=indirect object

IRR=irrealis

LK=linker

NOM=nominative

NONFUT=nonfuture

OCOMP=object of comparison

OBL=oblique

PART=participle

PAT=patient

PERF=perfective

RED=reduplication

REL=relative

REFL=reflexive

SU=subject

SUFF=suffix

TR=transitive

[2] Nominative case-marking appears on the pronominal A argument. This is due to a type of split-ergativity observed in many Pama-Nyungan languages and will be discussed in section 5.1.

[3] In a number of ergative languages, ergative case is identical to genitive case.

[4] Technically, the case-feature of the NP is checked (not assigned) by the AgrS and AgrO heads. I use the term 'assign' in order to maintain simplicity in exposition throughout the paper.

[5] The exact mechanism employed in this theory for case assignment is 'valuing'. A case-valuing functional head carries a case feature with a value of 'nominative', 'accusative', 'absolutive', etc. The functional head searches its c-command domain for an NP with an unvalued case feature. Once a unvalued case feature is found, the value is copied from the functional head to the NP. For the sake of simplicity, I will continue to refer to case 'assignment' rather than 'valuing'.

[6] The recent Minimalist approaches postdate the general acceptance of the Abney's (1987) DP hypothesis, so in these sections nominal arguments are treated as DPs rather than NPs.

[7] Although moving the absolutive DP to the outer specifier of *v*P has the effect of making this DP visible to a probe on the next higher phase head, this movement should not block an Agree relation with the ergative DP, since it is also located in the edge of the *v*P phase. Therefore, if the ergative DP carried an appropriate feature, e.g. a [wh] feature, it should be able to move to [Spec, CP], contrary to the empirical fact that ergative DPs are not generally able to undergo A'-movement. In section 6.2, I consider possible countermeasures which might address this problem for Aldridge's analysis.

[8] Since the absolutive DP typically follows the ergative DP in surface word order, Aldridge (2004) claims that movement of the absolutive DP to the *v*P is generally covert in Tagalog, meaning that this DP is spelled out in its base position inside VP (as per the approach to covert movement proposed by Bobaljik 1995, 2002; Nunes 1999; Pesetsky 2000; among others). In cases in which the absolutive undergoes further movement, e.g. to [Spec, CP], Aldridge adopts a proposal by Richards (2001) which allows covert movement to an intermediate landing site to become overt if the movement continues beyond the usual landing site.

[9] An approach along these lines was first suggested by an anonymous reviewer.

[10] An indication that this line of thinking is correct comes from the fact that nine of the eleven languages that Keenan and Comrie cite as allowing only one grammatical function to relativize are Austronesian. Many Austronesian languages have been analyzed convincingly as ergative or having ergative characteristics (Payne 1982, Cooreman 1982, Hopper 1983, Gertds 1988, De Guzman 1988, Verhaar 1998, Gibson & Starosta 1990, Brainard 1994, Huang 1994, Maclachlan 1996, Maclachlan & Nakamura 1997, Wechsler & Arka 1998, Arka 1998, Kikusawa 2002, Otsuka 2003, van de Visser 2003, Aldridge 2004, Liao 2004, among others). Aldridge (2007b) proposes a historical analysis of the evolution from ergative to accusative syntax in Indonesian which has resulted in an accusative case-marking pattern while retaining the EPP restriction on *v*. Therefore, prediction of this line of research then turns out to be that we expect to find the extraction restriction to pertain to absolutives or to subjects which have been reanalyzed from absolutives.

[11] Note that PRO can occur in O position in Dyirbal, as shown in (4a). This may be further evidence that absolutives move to subject position in this language.

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