

NOMINATIVE AND ERGATIVE LANGUAGES: TOWARDS A UNIFIED THEORY OF CASE CHECKING

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This paper offers an analysis of Nominative and Ergative Case systems in the spirit of Chomsky's (1995, 1998) Minimalist Program. In particular, Chomsky's elimination of AGR from the inventory of admissible functional heads leads to a re-discussion of most generative analyses on Ergativity, which were crucially based on the role played by AGR-heads. In this work I will show that the two Case systems can merely be seen as the outcome of a principle of Economy which establishes that only one Case in a transitive sentence needs to be marked. In other words, the crucial point is not which Case is checked in an unaccusative clause, as traditionally assumed, but rather which of the two Cases is marked in a transitive clause. To test the validity of my proposal, I will discuss most of the phenomena commonly linked with Ergativity, while bringing together data from a wide inventory of different languages.

0. INTRODUCTION¹

The aim of this paper is to re-examine a phenomenon which characterizes many languages of the world, namely the occurrence of Ergative Case systems, as well as Split systems. The main proposal, shaped in a Minimalist framework, consists in changing the perspective of the analysis, and view transitive –rather than unaccusative– clauses as the core cases in which Ergativity may arise. Crucially, I will ascribe the existence of the two different Case systems to a principle of Economy, which is at the basis of a parametric choice: when only one DP is present in a clause, it will surface with a default Case, while when two DPs are present, only one needs to be overtly marked, and both possibilities

(subject-Case or object-Case) are available in UG, hence the existence of two different Case-marking systems.

After presenting the main features of Nominative and Ergative languages (section 1), and discussing Chomsky's and Bobaljik's accounts of the two Case systems and Obligatory Case Parameter (section 2), in section 3 I will argue in favour of a unified theory of Case checking for Nominative and Ergative languages, and in particular I will derive the two Case systems without assuming different structures for unaccusative clauses in the two groups of languages. Crucially, in a framework based on VP-shells, in line with Chomsky (1995), the derivation of the two Case systems can be captured by setting a parameter based on Economy considerations (section 4).

To test the validity of such a proposal, in section 5 I will apply the model to more complex data involving Split Ergativity, specifically cases where the two Case systems are both found within the same language. Finally, in the last section I will consider some additional issues related to Ergativity, still in order to show how the model I am proposing is empirically adequate and proves able to cover most of the puzzles related to Ergativity: unergative clauses, antipassives and inflectional agreement. Section 7 summarizes the main conclusions reached so far.

1. AN INSIGHT ON NOMINATIVE AND ERGATIVE CASE SYSTEMS

It is well-known from the literature that the languages of the world can roughly be divided into two groups, according to the strategies they employ to encode the Case relations between a predicate and its arguments. Some languages are labelled 'Nominative': in these languages the sole argument of an unaccusative verb receives Nominative (NOM) Case like the DP-agent of a transitive verb and differently from the DP-patient, identified instead with Accusative (ACC) Case, as in the German example in (1) below. But there exist other languages, labelled 'Ergative',² which follow a different strategy: the sole argument of an unaccusative verb is in fact identified with the same Case (Absolutive, ABS) borne by the DP-patient of a transitive verb, while the DP-agent receives a different Case, Ergative (ERG). The Ergative Case system is exemplified in Kashmiri (from Bhatt, 1994: 73; 37), in (2):

- (1) (a) Der Mann sah den Lehrer
 the-NOM man saw the-ACC teacher
 'The man saw the teacher'

- (b) Der(*den) Lehrer kam
 the-NOM teacher came
 'The teacher came'

- (2) (a) LaRk-an kheyi tsoT
 boy-ERG ate-f.sg bread-ABS,f.sg³
 'The boy ate the bread'
 (b) LaRk(*-an) ga-v skuul
 boy-ABS went-m.sg school
 'the boy went to school'

The existence of the two different Case systems exemplified above is well-known in the literature and has received an exhaustive descriptive account (see Silverstein, 1976; Dixon, 1979, 1994; DeLancey, 1981; Comrie, 1981; Harris, 1982; Jelinek, 1993; Laka, 1993; Mahajan, 1990, 1994; Bittner and Hale, 1996a-b, and many others). The occurrence of mixed systems is also well attested: there are in fact languages which follow both NOM-ACC and ERG-ABS systems in different constructions; the choice in favour of the one or the other system in the various cases is generally determined by certain feature specifications, like person feature of the DP-(surface) subject or Tense/Aspect feature of the predicate. The fact that both Case systems may coexist within the same language is labelled 'Split Ergativity'. Many authors (e.g. DeLancey, 1981; Jelinek, 1993; Mahajan, 1994) argue indeed that no language is fully Ergative, but all so-called Ergative languages exhibit some sort of Split.⁴ We will examine these complex cases in section 5 below.

2. MINIMALIST ANALYSES OF CASE SYSTEMS AND THE OBLIGATORY CASE PARAMETER

Interesting attempts to account for the existence of the two mentioned Case systems, as well as to capture the parameter underneath, are found in and Bobaljik (1992, 1993), Chomsky (1993) and Laka (1993). Under a minimalist framework, these authors assume that Case is assigned, or better checked, by means of a Specifier-head relation between a DP and an AGR-type head. Therefore the number of AGR-heads which must be present in a clause mirrors the number of arguments needing Case: a transitive clause will project two AGR-heads (AGRs^o and AGRo^o), while an unaccusative clause will project only one.

Bobaljik (1992), developing suggestions found in Levin and Massam (1986), captures the opposition between Nominative and Ergative languages

by hypothesizing that the sole AGR-head needed for checking purposes in unaccusative verbs is different in the two groups of languages. In Nominative languages such a head will be $AGRs^{\circ}$, namely the head which checks (NOM) C  se on the DP-agent of transitives, while in Ergative languages this head will qualify as $AGRo^{\circ}$, namely the head which checks (ABS) Case on the DP-patient of transitives. As a consequence, Bobaljik (1993) and Chomsky (1993) assume that the structure of transitive verbs is the same in the two groups of languages, as in (3) below, while the structure of unaccusative verbs is parametrized, as in (4):

(3) $AGRs^{\circ}$ T° $AGRo^{\circ}$ V°

(4) (a) $AGRs^{\circ}$ T° V° (Nominative languages)

(b) T° $AGRo^{\circ}$ V° (Ergative languages)

Developing further his analysis, Bobaljik (1993: 50) formulates the Obligatory Case Parameter (OCP), given in (5):

(5) Obligatory Case Parameter:

(a) Case x is obligatorily assigned/checked.

(b) – In Nominative languages, Case x is NOMINATIVE

– In Ergative languages, Case x is ABSOLUTE

From this parameter it follows that, whenever a predicate takes at least one DP-argument, there is one Case x (which is NOM or ABS, according to the Case system of the language) which is primarily assigned. As a consequence, the sole argument of an unaccusative verb must receive such Case x, consistently with the empirical data. This means that ACC and ERG can be assigned only if NOM and ABS have already been checked in the sentence.

Criticism to this proposal comes immediately to mind. To begin with, since the structure of transitive clauses is assumed to be the same in the two groups of languages, it should be more desirable to have a unitary structure also for unaccusative clauses, especially as concerns the relative position of AGR° and T° , contra (4) above.⁵

Second, the mentioned authors only take into account the contrast between fully Nominative and Ergative languages, namely ideal cases that seldom occur in natural languages (especially as concerns Ergative languages). I will instead apply the theory to data and show that the framework I propose is able to account for most of the puzzles related to Ergativity, namely Split Ergativity, unergative clauses and antipassives.

Finally, a purely theory-internal remark: the analysis sketched in (3)-(4) above is crucially based on the role played by Agreement heads, which Chomsky (1995) eliminates in the last paragraph of Chapter Four: he asserts in fact that the presence of Agreement heads in the sentence structure is not sufficiently motivated from a semantic point of view, inasmuch as they lack semantic content and convey only morphological information. Therefore, he proposes a model of sentence structure which dispenses with AGR-heads.

Adapting original suggestions of Larson (1988), who proposed a sentence structure based on recursive VPs (so-called VP-shells) to analyse ditransitive verbs, Chomsky (1995) proposes that even simple transitive verbs consist of two VP-shells, the lowest one containing the lexical verb V^0 , and the highest one headed by a light verb v^0 . The external argument is not merged in Spec(VP) but rather in Spec(v P). The structure of a transitive verb looks as in (6):

(6) [_{TP} T [_{VP} DP-subj v [_{VP} V DP-obj]]]

The structure of unaccusative verbs differs from the previous one in that it contains a single VP-shell, headed by the lexical verb. The number of arguments and the number of VP-shells is thus symmetrical, as was the number of arguments and AGRPs in Chomsky (1993). The structure will be the following:

(7) [_{TP} T [_{VP} V DP]]

Since AGR-heads are dispensed with, Chomsky (1995) assumes that T^0 and V^0 are the Case-checking heads.

It is clear that in this system, where AGR-heads are eliminated, Chomsky's and Bobaljik's accounts in (3)-(4) above cannot be maintained. The structure of unaccusative verbs in (7) is in fact universal, and thus independent of the Case system the language follows. The parameter which distinguishes Nominative and Ergative languages cannot depend any longer on the nature of the functional projection present in the structure of unaccusatives (AGRs^o vs. AGRo^o), and must be sought after elsewhere.

3. APPROACHING THE TWO CASE SYSTEMS FROM A DIFFERENT PERSPECTIVE

The above discussion leads to a re-definition of the crucial factors involved in the derivation of the two Case systems.

According to the traditional accounts on Ergativity (like Silverstein, 1976; Dixon, 1979, 1994), Ergative languages are those which identify with the same Case (ABS) S and O, while Nominative languages identify with the same Case (NOM) S and A.⁶ In other words, in all these works, but not less in Bobaljik's (1993: 45) discussion on OCP, the stress is mainly placed on the Case realized on the sole argument of unaccusatives (whether it is A-Case or O-Case); such Case is therefore deemed 'obligatory'.

What I claim in this paper is that we must look at the phenomenon from the opposite perspective. Bearing in mind that languages follow principles of Economy, it is a logical consequence that, whenever a sentence contains only one argument, such DP need not be distinguished from any other, and therefore it will be morpho-phonologically unmarked.⁷ Bobaljik's 'obligatory' Cases, which he calls NOM and ABS, are actually unmarked, indistinct Cases, to such a point that, if languages contained only unaccusative sentences, there could be no way (and no need, however) to distinguish between two Case systems. This fact constitutes a further criticism to the analysis in (4) above, that postulated different sentence structures for unaccusative clauses, which, on the contrary, have a very homogeneous behaviour cross-linguistically.

Once a second argument comes into play, in transitive clauses, there comes the necessity to mark one of the two arguments in order to give the right interpretation to the sentence.⁸ Both possibilities are attested cross-linguistically: languages which mark O, and therefore A will be unmarked, thus patterning with S (Nominative languages) and languages which mark A, and therefore O will be unmarked, like S (Ergative languages). In this perspective, the crucial factor is not so much which Case is checked by the sole argument of unaccusatives, as was still in Bobaljik (1993) and Chomsky (1993), but rather which of the two arguments of a transitive clause gets marked.

When the verb is unaccusative, two potential Case-checking heads are present (T° and V°) but only one Case is needed for the sole DP. Therefore, I claim that only one of the two heads will be endowed with an active Case feature. Of course, there is nothing in principle which establishes which of the two heads must contain such a Case feature, and this accounts for the fact that both possibilities are attested cross-linguistically. A parameter will thus establish which head is active in a given language: T° in Nominative languages and V° in Ergative ones. The active head checks the unmarked Case in unaccusatives, and will retain this property even in transitive sentences, hence the observed 'obligatoriness' of the Case it checks, which is respectively NOM and ABS.

4. NOMINATIVE AND ERGATIVE LANGUAGES: CHECKING OF CASE FEATURES

At this point it is necessary to observe more in details how the Case checking process takes place in the two groups of languages.

In line with Chomsky (1995, 1998), I assume that Case is an uninterpretable feature, and therefore the Case features contained in both the heads and the arguments must be checked and deleted in a Spec-head configuration.

In Chomsky's model, the external argument of a transitive verb checks Case against T° by moving to Spec(TP), while the DP-object checks Case by moving to Spec(vP) after that V° has incorporated into v° ; a second specifier is projected to accommodate such DP.

However, I will depart from Chomsky's specific proposal in assuming that the internal argument, generated in VP-complement position, checks Case against V° , simply moving (covertly or overtly) to Spec(VP), a position that is now unoccupied as the external argument is merged into higher Spec(vP). Crucially, since V° is the head containing the Case feature, it seems reasonable to assume that it attracts the DP directly in its specifier. My present proposal has also the advantage of avoiding crossing paths and locality problems between the two arguments (once they occupy multiple Spec(vP) positions, they are both equidistant from Spec(TP)), and there is no need to postulate the projection of a second Spec(vP).⁹

Therefore, I argue that T° checks the Cases which are associated with subjecthood/agentivity: NOM in Nominative languages and ERG in Ergative languages. V° , instead, checks the Cases which characterize internal arguments: ACC or ABS, according to the Case system of the language.¹⁰ Bobaljik (1993) shows very convincingly that, from a syntactic point of view, it is ERG, and not ABS, the Case which corresponds to NOM. Once we analyse phenomena like binding and control, which crucially involve asymmetrical c-command, NOM and ERG DPs behave alike, and the same holds for ACC and ABS DPs. In this work, therefore, I will analyse ERG Case as the Ergative (syntactic) counterpart of NOM, and ABS as the counterpart of ACC.¹¹ As for the morpho-phonological unmarkedness of NOM and ABS, it is a consequence of what discussed in section 3 above: the obligatory Case need not be marked, while something is necessary to mark the Case which is NOT obligatory.

Besides, I argue that not all DP-movements can be explained in terms of Case-checking reasons, but also another factor plays a crucial role. In earlier frameworks, the intuition that 'every sentence must have a subject' had been labelled Extended Projection Principle (EPP), and

was motivated by Case reasons: a DP moved to Spec(IP) to receive Nominative Case. More recently, it has been assumed instead that the head T° intrinsically contains a strong feature, a D° -feature (as in Chomsky, 1993, 1995) or a “subject” feature (as in Bobaljik, 1993), which must always be checked and deleted before Speli-out, due to its uninterpretability at LF.

Therefore, T° always attracts a DP in order to enter a Spec-head checking relation with it and delete such a feature.¹² Under Minimal Link Condition (Chomsky 1995), such DP must be the nearest one bearing the appropriate feature.

Thus, the head T° contains two uninterpretable features: Case feature and EPP feature, but we will see that the DP which moves into Spec(TP) does not have necessarily to check both.

4.1. DERIVATION OF TRANSITIVE CLAUSES

In transitive clauses, we have two arguments which need to check Case and two Case-checking heads: T° and V° . TP is merged immediately above vP, therefore the DP-external argument, generated in Spec(vP), will always move to Spec(TP) and become the surface subject of the sentence, satisfying EPP requirements. Such DP also checks Case against T° : this Case will qualify as NOM in Nominative languages, and ERG in Ergative languages.

As for V° , this head checks the Case of the DP-object which moves into its specifier: ACC Case in Nominative languages, and ABS Case in Ergative languages. The derivations are sketched in (8)-(9):¹³

(8) Nominative languages:

$[_{TP} DP_{subj} (+NOM) T [_{VP} DP_{subj} v [_{VP} DP_{obj} (+ACC) V DP_{obj}]]]$

(9) Ergative languages:

$[_{TP} DP_{subj} (+ERG) T [_{VP} DP_{subj} v [_{VP} DP_{obj} (+ABS) V DP_{obj}]]]$

4.2. DERIVATION OF UNACCUSATIVE CLAUSES

As discussed earlier, in unaccusative clauses we have only one DP which needs to check Case and two potential Case-checking heads, T° and V° . Therefore, only one of the two heads will host an active Case feature. The various languages establish, as a matter of parameter setting, which of the two potential Case-checking head actually contains the Case feature.

This parametrization will **have** as a consequence the empirical **generalization summarized** in Bobaljik's OCP. In Nominative languages it is T^0 that bears the Case feature, hence NOM **shows up** as the Obligatory Case. We can **assume** that the DP moves to **Spec(TP)** and checks NOM Case **against** T^0 ; such a movement is independently needed **also** for EPP reasons, namely to check the **strong** D^0 -feature contained in T^0 , which **does** not coincide with Case feature (see Braningan, 1993; Collins, 1997).¹⁴

In Ergative languages, instead, the DP of unaccusative clauses checks ABS Case, namely the Case which characterizes **internal arguments**. **This** fact can be **captured** by assuming that, in this group of languages, it is V^0 , rather than T^0 , which carries the Case feature. The DP, therefore, moves to **Spec(VP)** and checks (ABS) Case **there**.¹⁵ This DP will ultimately move to **Spec(TP)**, but this movement is **triggered** only by EPP reasons, and not by Case reasons. The derivations are given in (10)-(11):

(10) Nominative languages:

[_{TP} DP (+NOM) T [_{VP} V ~~DP~~]]

(11) Ergative languages:

[_{TP} DP T [_{VP} ~~DP~~ (+ABS) V ~~DP~~]]

The previous discussion **leads** to the conclusion that the existence of **two** different Case systems can be **captured** by **parametrizing** which of the **two** Case-checking heads contains the **sole** active Case feature in unaccusative clauses, where only one Case can possibly be checked. The sentence **structure, instead**, is the **same** in the **two groups** of languages, both in **transitive** and in unaccusative constructions.

The case in (11) **also** supports my previous **hypothesis** that ACC Case is checked in **Spec(VP)** rather than in **Spec(vP)**, as in Chomsky (1995). In fact, **assuming** that ACC and ABS are checked by the same **head**, it **becomes hard** to capture how ABS Case could be checked in unaccusative clauses in (11) above where **vP** is not projected.¹⁶

5. SPLIT ERGATIVITY

As mentioned in **section 1**, Ergative languages are **rarely, if ever, fully** ergative, but most of them exhibit a so-called Split: they follow the **two** different Case systems in different constructions. **Up** to now we **have concentrated only** on the most 'ideal' cases, and we **have seen** how we can **capture the** opposition of Nominative and Ergative **Case** systems with

1/2 pronouns, which do not seem to appear less frequently in object than in subject position (for an interesting criticism see Jelinek, 1993: 18-19). Nonetheless, the existence of a split between 1/2 and 3 pronouns is widely attested in the empirical data. Therefore, Jelinek (1993: 28) suggests a syntactic motivation of the split in terms of Definiteness: since 1/2 pronouns, differently from 3 ones, are always definite, Ergative languages would tend to exclude sentences with indefinite subjects.

The interaction of Nominative and Ergative systems in the same language gives rise to a complex pattern, as seen in the following example from Lummi, a Strait-Salish language (data from Jelinek, 1993: 18):

- | | | |
|----------|----------------|--------------------------|
| (13) (a) | xci-t-onḁs=sḁn | 'I(NOM) know you(ACC)' |
| (b) | xci-t-f=sḁn | 'I(NOM) know him(ABS)' |
| (c) | xci-t-s=f | 'He(ERG) knows him(ABS)' |
| (d) | * _____ | 'He(ERG) knows me(ACC)' |
| (e) | xci-t-n=sḁn | 'I(NOM) am known' |

According to the hypotheses put forward above, and in contrast with Jelinek, I assume that NOM and ERG Cases are checked by the same head, T°, while ACC and ABS are checked by V°. I will show now how this model is able to capture the Lummi data. In this regard I argue that in languages which exhibit Split Ergativity the two Case-checking heads (T° and V°) can check indifferently one of the two available Cases; of course the choice between the two possibilities is not accidental, but it depends on the necessity to mark (morphologically) one of the two DPs. Again, it is not accidental that each of the two heads is enabled to check one unmarked Case (NOM for T° and ABS for V°) and one marked Case (respectively ERG and ACC).

(13a) represents the case in which both arguments are 1/2 pronouns. Since these elements get marked when appearing in object position, this case patterns with (8) above, namely the case of transitive structures in Nominative languages. The object pronoun checks ACC Case against V°, while the subject pronoun checks NOM Case against T°, after moving to Spec(TP) position. OCP is thus respected.

In (13b) the subject is 1/2 and the object is 3. In this case, both arguments are morphologically unmarked. The object checks ABS Case against V° and the subject checks NOM Case against T°. This case is also interesting, in that it appears to constitute a counterexample to my earlier assumption, namely that, in a transitive sentence, one of the two arguments must be marked in order to retrieve the desired interpretation. This necessity seems indeed to become immaterial in examples like (13b)

above, where both arguments are unmarked. Nonetheless, the counterexample is only apparent, since a sentence like (13b) is not ambiguous, inasmuch as the information generally conveyed by morphological Case feature is here provided by Person feature, which ultimately relates to Definiteness, as hinted at above: if one argument is 1/2 and the other is 3, the sole possibility allowed in Lummi is that 1/2 is the agent and 3 the patient, while the reverse order is not attested (see [13d]). As a consequence, no DP in (13b) needs to be overtly marked in order to convey the desired interpretation, and the ‘cheapest’ option is chosen. Crucially, this case further supports the present interpretation of OCP as a principle of Economy. Assuming that overt morphological marking is more costly than default Case, represented by NOM or ABS, Economy establishes that no more than one Case needs to be marked in a transitive sentence. Since in (13b) there is no necessity to mark even that one for independent reasons, both arguments can surface with the unmarked Case.

In (13c) both arguments are 3. This case patterns with (9) above, namely a transitive sentence in fully Ergative languages: the object checks ABS against V° and the subject checks ERG against T° .

The case in (13d), where the subject is 3 and the object is 1/2, is not witnessed to in Lummi. It is mainly in order to rule out this case that Jelinek (1993) postulates that ACC and ERG are checked by the same head: since that head ($AGRo^{\circ}/V^{\circ}$) cannot check both cases at the same time, the sentence is ruled out.

We will see later that a sentence like (13d) is however well-formed in other languages, which remain unaccounted for under Jelinek’s hypothesis. On the contrary, our proposal of viewing Case marking as a principle of Economy consents to rule out (13d) even assuming that ACC and ERG are checked by different heads. In a sentence like (13d), in fact, no unmarked Case is assigned: the subject, being 3, checks ERG against T° , while the object, being 1/2, checks ACC against V° . Neither of them represents the “cheap” unmarked option, thus the sentence can be ruled out under Economy considerations. The presence of two overt Case markings is in fact a costly option, which is disallowed when possible.

In Lummi, in order to convey the required information (a 3 agent performing an action on a 1/2 patient), the language can indeed make use of a different strategy, given in (13e): the verb appears in the passive form, which syntactically behaves as an unaccusative. Therefore the patient (namely the 1/2 pronoun), being the sole real argument of the sentence, moves to Spec(TP) and checks NOM Case, while the DP-agent, whose presence is no more obligatory, eventually shows oblique (thus inherent) Case marking.

The sentence in (13d) is therefore ruled out in Lummi due to a violation of the Economy principle, since the language can make use of a cheaper strategy like (13e).

However, as hinted at above, a sentence like (13d) is well formed in many Ergative languages, like Hindi (Mahajan, 1990) or Kham (DeLancey, 1981). Such languages, in fact, though behaving exactly like Lummi in cases corresponding to (13a-c), do not rule out the equivalent of (13d), namely they admit the co-occurrence of *ERG* and *ACC*, contra Jelinek's assumptions, as we can see in the following example from Kham (data from Watters, 1973, quoted by DeLancey, 1981: 628):

- (14) no-e nɔn-lay poh-na-ke-o
 he-ERG you-ACC hit-2p-perf-3p
 'He hit you'

What I claim for this case is that, in languages like Kham, a structure like (14) represents the sole (or however the less costly) option to convey the meaning that a 3 agent is performing an action on a 1/2 patient.²⁰ Thus, OCP is not enforced in this case. This Economy parameter, which allows one of the two Cases assigned in a transitive sentence to remain morphologically unmarked, can thus be "switched off" when marking both DPs represents the sole or the cheapest option in a given language.

Therefore, we must add a further specification to the parameter: OCP may or may not be enforced. In case it is, it also establishes which Case must be obligatorily checked. The parameter is thus decomposed into two sub-parameters, which give rise to three possible situations:

- (15) OCP
- | |
|------------------------------|
| / \ |
| not enforced enforced |
| / \ |
| ABS NOM |

The case in which OCP is not enforced is thus represented by some marked constructions in Kham or Hindi. When it is enforced, it gives rise to two different cases: Ergative system, where *ABS* is obligatorily assigned

and the subject gets morphologically marked, and Nominative system, where NOM is obligatorily assigned due to the marking of the object.²¹

Coming back to the Kham example in (14), and assuming that OCP is not enforced in this case, we can easily derive its peculiar Case distribution, since in our model ERG and ACC are checked by two different heads. The derivation will proceed as in (16):²²

- (16) [_{TP} DP_{subj} (+ERG) T [_{VP} ~~DP_{subj}~~ v [_{VP} DP_{obj} (+ACC) V ~~DP_{obj}~~]]]

5.2. TENSE / ASPECT SPLIT

Another common instance of Split Ergativity is linked to the Tense/Aspect feature encoded by the verb. As Dixon (1979) points out, if a language exhibits this kind of split, the ERG-ABS Case system is always found in perfective aspect / past tense, while the NOM-ACC system applies regularly to imperfective aspect / non-past tense. Among the languages which exhibit this kind of split we find Hindi (Mahajan, 1990, 1994), Burushaski (Dixon, 1979) and Georgian (Harris, 1982). This split is exemplified in (17) below from Hindi (Mahajan, 1994):

- (17) (a) niinaa kutton-ko khariidrah-ii hai
 Nina-NOM dogs-ACC buy progr.be
 'Nina is buying the dogs'
 (b) niinaa-ne kele khariid-aa
 Nina-ERG bananas-ABS buy-perf.
 'Nina bought the bananas'

Garrett (1990: 263), basing his analysis on Indo-Iranian languages, offers a diachronic explanation to account for tense/aspect splits. According to Garrett, this kind of splits is the consequence of the existence, in these languages, of deverbal adjectives, comparable to our past participles, which had passive interpretation with transitive verbs but active interpretation with unaccusatives. Therefore, the split arises when a passive (participial) form, with the agent-DP expressed as an oblique, is diachronically re-interpreted as an active, transitive form. In Middle Indo-Iranian, the thematic patient of the passive clause was morphologically unmarked, being the sole argument of the sentence (as in unaccusative verbs), while the Agent presented a Case marking.

Once the passive participle has been re-interpreted as a perfect, and the verb has been understood as active in voice, the thematic object was still morphologically unmarked, while the other DP, semantically akin to

an Agent, presented a morphological marking. As a consequence of this fact, these languages started marking with overt morphology all the agents/external arguments of perfective sentences, thus conforming to the Ergative Case system, while present/imperfective clauses continued following the Nominative system; hence the Split.

In other words, in Garrett's opinion, Ergativity arises since in a transitive sentence the DP which gets morphologically marked is the Agent and not the Patient/Theme, thus differently from what we find in Nominative languages; cf. the following example taken from Garrett (1990: 263):

- (18) ahi-r indr-ena ha-ta-h
 (a) serpent-UNM Indra-INSTR kill-pass
 'the serpent was killed by Indra'
 (b) serpent-ABS Indra-ERG kill-perf
 'Indra has killed the serpent'

Though abstracting from diachronic considerations, the model here proposed is able to offer an account for the present state of affairs. We must in fact recall that NOM and ABS are the morphologically unmarked Cases, thus it is by means of the morphological marking (ERG or ACC) on the second DP of transitive clauses that we are able to establish which of the two Case systems is operative in a given language (cf. section 3 above). A sentence like (18) was first interpreted like a passive sentence, as in (18a). Similarly to what happens in unaccusative clauses, the internal argument (*the serpent*) had to move to Spec(TP) (for EPP reasons) in the course of the derivation. Due to the unmarked character of the Case it bore, it is unclear at this stage whether it could be considered a NOM (checked against T°) or an ABS (checked against V°); the former option is probably the correct one, as this language follows Nominative system in imperfective clauses. The other DP (*Indra*) received an inherent Case (Instrumental).

The shift to Ergative system took place when the instrumental-DP, semantically akin to an Agent, was seen and understood as the external argument of a transitive, perfective sentence, and its presence became obligatory. Therefore the structure in (18) can synchronically be analysed as in (19) below: the internal argument (*abir*) checks the unmarked Case against V°, while the other DP, semantically an Agent, checks ERG Case against T°. Finally the object may move to a peripheral (i.g. topic) position, to account for the word order in (18b):

- (19) [_{TOPP} DPobj TOP [_{TP} DPsubj(+ERG) T [_{VP} ~~DPsubj~~ v [_{VP} ~~DPobj~~(+ABS) V ~~DPobj~~]]]]

6. FURTHER ISSUES RELATED TO ERGATIVITY

6.1. UNERGATIVE CLAUSES

The case of unergatives deserves some attention, since the Case checked by the sole DP present in the clause is not homogeneous among Ergative languages. While in Nominative languages such DP always appears with NOM Case, it receives ABS Case in some Ergative languages, like Inuit in (20) (from Bobaljik, 1993), and ERG Case in other languages, like Basque in (21) (from Laka, 1993):

- (20) ilinniaqtitsiji uqaq-tuq
 teacher-ABS spoke
 'the teacher spoke'

- (21) Emakumeak barre egin du
 woman-the-ERG laugh done has
 'The woman has laughed'

Unergative verbs are aspectually atelic, and their sole DP-argument represents the proto-agent, like the subject-DP of transitive verbs. We can argue that, as such, it is merged in the specifier of vP, as in (22):

- (22) [_{TP} T [_{vP} DP v [_{vP} V]]

The structure in (22) is however not enough to account for the complex situation of unergatives. Some of these verbs, in fact, allow an overt direct object, even if the choice of possible DP-objects is semantically restricted to the so-called cognate objects (cf. *to live a happy life*). This is the reason why Hale & Keyser (1991) and Laka (1993) proposed that all unergatives can be analysed as hidden transitives. In those cases where the presence of an overt object seems impossible (verbs like *phone*), we can assume, as in Laka (1993), that the unergative verb consists of a light verb and an action noun, which incorporates into the light verb (*to make a phone call* => *to phone*).

This situation is clear in Basque, as seen in (21) above: a verb corresponding to English *laugh* is in fact decomposed into the light verb *egin* and the noun *barre*. Thus, the structure of (21) above will recall transitives, with a DP in object position:

- (23) [_{TP} T [_{vP} DP v [_{vP} V DP]]

Let us consider now the derivation of unergative clauses in our model. Nominative languages pose no problem: the sole DP moves to Spec(TP) for EPP reasons and, since in these languages it is T^0 which contains the principal Case feature, it also checks NOM Case there. The derivation proceeds analogously to transitive clauses in (8) above, with the eventual DP-cognate object checking ACC Case in Spec(VP). As for Ergative languages, we saw that two possible situations arise: the sole argument may appear with ABS Case, as in Inuit ((20)) or with ERG Case, as in Basque ([21]).

To account for the latter case, I assume, following Laka, that Basque unergatives have the structure in (23), namely the structure of transitive verbs. Thus the DP-agent checks ERG Case against T^0 , like the DP-subject of transitive verbs, since the unmarked Case, ABS, is checked by the DP-object (*barre*) against V^0 .²³

(24) [_{TP} DPsubj (+ERG) T [_{VP} ~~DPsubj~~ v [_{VP} DPobj (+ABS) V ~~DPobj~~]]]

Laka (1993) does not offer a detailed discussion of the Inuit case exemplified in (20) above. This language indeed obeys Economy: whenever a single Case is assigned, this Case is unmarked. But this assumption raises further questions. We saw before that, in Ergative languages, it is V^0 , rather than T^0 , that contains the Case feature which checks ABS Case. Still the DP, generated in Spec(vP) as any external argument, cannot obviously move downwards to Spec(VP) to be in Spec-head relation with V^0 . The DP will rather move to Spec(TP) for EPP reasons, but T^0 can check only ERG and NOM; the problems remains of how ABS Case can possibly be checked in this structure.

I argue that the derivation proceeds in the following way. I assume that the structure of Inuit unergatives is (22), rather than (23), namely that unergative verbs in this language do not select any DP-object; hence V^0 cannot discharge its (ABS) Case feature against any internal argument. When V^0 adjoins to v^0 (in line with Chomsky, 1995), its uninterpretable Case feature has not been deleted yet; therefore the DP-agent, generated in Spec(vP), can check ABS Case *in situ* against $V^0(+v^0)$, once it comes to be in Spec-head configuration with the complex head.²⁴ Eventually the DP moves to Spec(TP) for EPP reasons. The derivation is sketched in (25):

(25) [_{TP} DPsubj T [_{VP} ~~DPsubj~~ (+ABS) V+v [_{VP} ~~✓~~]]]

The difference between languages like Inuit and Basque, therefore, is more lexical than syntactical: it depends on whether unergative verbs

are full verbs or rather light verbs selecting an action noun, which is syntactically generated as the internal argument of the verb. This piece of information is solely contained in the lexicon: the different syntactic structures which, I argue, correspond to the two cases are nothing more than a direct consequence of the lexical properties. In the case of Inuit, an unergative verb is a full verb, which never selects a cognate object (cf. the analysis of antipassives below); thus the ABS Case feature contained in V^0 is left available for the sole DP present in the structure. In the case of Basque, instead, the DP-object is always selected, as unergative verbs always consist of a light verb plus a DP. Therefore the obligatory Case, ABS, is assigned to such DP, whereas the agent-DP can check ERG Case against T^0 , similarly to what happens in transitive sentences in (9) above.

6.2. ANTIPASSIVE STRUCTURES

Another construction which characterizes many Ergative languages is antipassive. An exemplification is provided in (26) from Inuit (Bittner and Hale, 1996a: 36):

- (26) (a) Juuna-p Anna kunip-p-a-a
 J.-ERG A.-ABS kiss-ind[+tr]-3sg-3sg
 'Juuna kissed Anna'
- (b) Juuna (Anna-mik) kunis-si-v-u-q
 J.-ABS (A.-INSTR) kiss-apass-ind[-tr]-3sg
 'Juuna kisses/is kissing (Anna)'

According to Bittner and Hale (1996a), the antipassive morpheme affixed to a verb introduces atelic aspect. Therefore the transitive verb is rendered unergative, in the sense that the internal argument is not interpreted as a direct object any longer: its presence becomes optional, and even when present it carries oblique Case, as in (26b). The subject-DP, which is marked with ERG Case in the transitive sentence (26a), appears with ABS in the antipassive (26b).²⁵

Since antipassive constructions behave, either syntactically (e.g. Case marking) or semantically (e.g. atelicity) as unergatives, we can offer for (26b) the same analysis we proposed in (25) above for unergatives. It is not accidental that a language like Inuit, which marks with ABS Case the sole argument of an unergative verb (cf. (20)), marks with the same Case also the DP-subject of an antipassive ([26b]).

In a sentence like (26b), there is indeed only one DP, the thematic Agent, which is able to check structural Case. As for the internal argument, either it is not present at all, or it is generated VP-internally, receiving inherent Case *in situ*. Consistently with the Economy principle, the Agent-DP can (or better must) surface unmarkedly; this means that it checks the default Case, ABS, differently from its transitive counterpart in (26a). The derivation proceeds as in (27), which recalls (25): the DP checks the Case feature *in situ*, after that V° (which has not deleted its strong Case feature yet) has incorporated into v°:

(27) [_{TP} DP_{subj} T [_{VP} ~~DP_{subj}~~ (+ABS) v [_{VP} V (DP-instr)]]]

The case of antipassives, thus, confirms the analysis I offered in 6.1 for unergatives. The fact that, in antipassive structures, the internal argument can never receive ABS Case, but gets inherently Case marked, can be interpreted as evidence that this DP is not allowed to leave its VP-internal position in order to check structural Case, as happens instead in languages like Basque. Thus, since the eventual DP-object is overtly marked, the DP-subject can choose the less costly option and check the default Case.

6.3. INFLECTIONAL AGREEMENT

Looking at the empirical data, we see that inflectional agreement shows a different behaviour in the two groups of languages under discussion. At a first look, we could assume that agreement is a function of OCP: the DP bearing the Obligatory Case seems to control inflectional agreement. This prediction is borne out in Nominative languages, where the DP marked with NOM always controls agreement: agreement with an ACC-marked DP, or with both DPs of a transitive clause at the same time, is always ruled out, as in (28) from Italian:²⁶

(28) Gianni am-a (*-o) me
 G.-3sg love-3sg (*-1sg) me-1sg.ACC
 'Gianni loves me'

In Ergative languages, therefore, we should expect agreement to be controlled by the ABS-marked DP. This is what happens in unaccusative clauses (in all languages), as well as in transitive clauses in languages like Hindi (Mahajan, 1994). But in many Ergative languages, like Marathi (Gair and Wali, 1987), Kham (Watters, 1973; Bittner and Hale, 1996a),

Yup'ik and Inuit (Bobaljik, 1993) and Warlpiri (Bittner and Hale, 1996a, b), a transitive verb bears two distinct agreement morphemes which correspond to the two DPs; in other words, the verb agrees with both DPs at the same time, as in (29) from Marathi (Gair and Wali, 1987):

- (29) Tu kavitaā vaac-l-i-s
 you-ERG poem-fem(ABS) read-perf-3f.sg-2sg
 'You read the poem'

This fact can be explained by assuming that surface subjecthood plays a role in controlling inflectional agreement, in addition to Obligatory Case. The DP marked with ERG Case is in fact in Spec-head relation with T° , a head which, like former I° , has generally been assumed to be responsible for the checking of the agreement features of the verb, which incorporates into T° in the course of the derivation. Hence, it does not come as a surprise that also the ERG-DP, which is the surface subject,²⁷ may control agreement, along with the ABS-DP.

Therefore, (many) Ergative languages show that two factors are responsible for inflectional agreement: Obligatory Case and surface subjecthood. This assumption is superfluous for Nominative languages, where the two properties are always found on the same DP.

7. CONCLUSIONS

In the first part of this paper I have examined data from Nominative and Ergative languages, in the attempt to individuate the parameter at the basis of the derivation of the two Case systems.

In particular I have argued that a framework which dispenses with AGR-heads and makes use of VP-shells, as suggested by Chomsky (1995), permits to express the important insight that unaccusative verbs are associated with the same structure in Nominative and Ergative languages, in contrast with what assumed by many recent works on Ergativity, like Bobaljik (1992, 1993), Chomsky (1993), Bittner and Hale (1996a, b), all of which were crucially based on the role played by AGR-heads.

Another important conclusion that I may draw from the above discussion is that Bobaljik's (1993) Obligatory Case Parameter is merely an empirical generalization which follows from a principle of Economy. Since morphological Case marking is more costly than unmarkedness, we can reasonably argue that a DP will carry no Case affix unless this is

necessary to disambiguate the sentence. Thus the sole DP of an unaccusative sentence need not (hence must not) be marked, and also in a transitive sentence one of the two DPs can be left unmarked. The two Case systems are not a consequence of the Case carried by the sole DP of unaccusative sentences, as traditionally assumed, but rather they arise from the marking of one DP in a transitive sentence: a Nominative language differs from an Ergative one in that the former chooses to mark the DP-object, while the latter marks the DP-subject. In other words, it is by examining transitive sentences, and not unaccusative ones, that we determine the Case system of a given language: the DP of an unaccusative sentence is always unmarked, and thus it says nothing in itself.

Furthermore, in section 5 I have examined some intriguing cases, involving Split Ergativity, both Person Split and Tense/Aspect Split. I have shown that all of the structures examined comply with the assumed Economy principle: a DP gets overtly Case-marked only when this represents the sole possibility to convey the required information; as far as it is possible, the default Case (NOM or ABS) is primarily checked; analogously, the ill-formed structures are blocked by Economy considerations.

In section 6 I have shown how the proposed model proves adequate to deal also with unergative and antipassive clauses. The fact that the external argument in these constructions is marked with ERG Case in some Ergative languages, and with ABS Case in others, is captured by assuming two possible sentence structures, differing in, respectively, the presence vs. the absence of an internal argument.

Finally, section 6.3 presents a discussion on inflectional agreement, and it tentatively provides an explanation of the reason why in many Ergative languages both DPs of a transitive clause are able to influence agreement, differently from what happens in Nominative languages.

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NOTES

1. A preliminary version of this paper was presented at the extraordinary GLOW Colloquium held in Hyderabad (India) on January 20-22, 1998. I would like to thank the organizers of the conference, as well as all the participants, whose comments have proved very valuable. Many thanks also to Rita Manzini, Denis Delfitto, Leonardo Savoia, Giuseppina Turano and Josep Quer for comments on different versions of the paper. All responsibilities are of course my own.
2. Among Ergative languages we find Hindi and many other languages of the Indian subcontinent, Georgian, Basque, Inuit and Australian aboriginal languages (Dyirbal, Warlpiri and others).
3. I have labelled ABS the unmarked Case. In the original examples, instead, Bhatt labels it N(OM). Also other authors (e.g. Bittner and Hale 1996a,b) use a unique label for NOM and ABS.
4. It has been argued that Nominative languages may exhibit Split Ergativity as well: see for instance the Central-Southern Italian dialects analysed in Cocchi (1995, 1998) and Savoia and Manzini (in prep.). Also the so-called 'quirky subjects' found in languages like Icelandic (Thr  nsson, 1997), where a sentence-initial non-NOM-DP (generally DAT) behaves like a subject, might lead to the same conclusion.
5. Of course we could argue that, in unaccusative clauses, different AGR-projections are activated, which does not necessarily imply that the inactive ones are not generated, and the structure might turn out to be the same also for unaccusatives. But in a Minimalist framework the generation of a functional node which does not perform any role is ruled out, and since AGR-heads only serve as mediators for Case-checking, if they do not comply to this function their presence is ruled out on grounds of Economy.
6. Dixon (1979) labelled S (for Subject) the sole argument of an unaccusative (or monoargumental in general) verb, while the two arguments of a transitive verb were called respectively A (for Agent) and O (for Object). For the sake of brevity alone, I will sometimes use these labels in the present discussion.
7. The interesting discussions we find in Weerman (1996) and Neeleman and Weerman (1996) also lead to the conclusion that a morphologically marked Case can be considered more costly than an unmarked one. Therefore, to leave unmarked the sole DP of a sentence constitutes a choice in the spirit of Economy.
8. Morphological Case marking is not the only strategy available to the languages to give interpretation to a sentence. Another strategy is represented by word order: the external argument precedes the internal one in the unmarked reading (e.g. without focus). It is not accidental that languages with morphological Case marking admit a much freer word order with respect to languages which do not have or have lost it.
9. Though superfluous in the case at hand, the projection of multiple specifiers proves nevertheless to be a valid proposal in other circumstances. Alternative theories aiming at avoiding crossing paths and locality problems are found in Bobaljik (1995) and Koizumi (1993).

10. See also Laka (1993) for a discussion of OCP. She reformulates Bobaljik's proposal by assuming that Cases are not checked by AGRs° and AGRo°, but rather by T° and V°, which are the true Case assigners. This is in line with Chomsky (1995), and with the present proposal. I will however depart from Laka's model, in that she still attributes an important role to AGR°, crucially distinguishing between Cases assigned by V°+AGRo° (Structural Cases) and Cases assigned by V° alone (Inherent/partitive Cases). In my model this distinction is overcome, as we will see in Section 6.

11. A similar assumption is found in several other works, e.g. Bobaljik (1992, 1993), Chomsky (1993), Laka (1993), Levin & Massam (1985), Cocchi (1997). Other authors like Bittner (1994), Bittner and Hale (1996a,b), Bok-Bennema (1991), Campana (1992), Jelinek (1993), Johns (1992), Murasugi (1992) do not agree with this claim and consider ABS as corresponding to NOM. In the course of the paper I will offer both theoretical and empirical motivation (see in particular section 5.1) that the assumption adopted in this work is preferable.

12. The only exception to EPP is represented by VSO languages. According to Chomsky (1995), in these languages the D°-feature contained in T° is weak, hence it must not be checked, at least in overt syntax.

13. It is worth pointing out that the Case-checking relations involved in the derivations from (8) to (11) can take place either overtly or covertly. The various languages will parametrize on this point according to their language-particular properties. For brevity, I also neglect to discuss verb movement.

14. Rather, it is often argued that Case feature (and not only ACC, but also NOM Case feature) is generally weak. Hence overt movement to Spec(TP) is, in many languages, triggered only by the need to check the strong D° feature contained in T°, while Case feature is checked as a free-rider (as in Delfitto, 1997, in line with Chomsky, 1995) or at LF (as in Collins, 1997).

15. If we consider Case feature –hence also ABS Case feature– to be weak, as hinted at in fn. 14, we can assume, in line with Collins (1997), that in Ergative languages v° has a strong D-feature which triggers overt movement of a DP into its Spec, analogously to what generally happens for T°.

16. A possible option is to assume, in line with Collins (1997), that the higher vP (which Collins calls TrP, from Transitivity) is present also in unaccusative clauses, even though the head Tr°/v° does not check Accusative Case in this case. If we accept Collins's proposal, we can maintain Chomsky's assumption that the Case of the object of transitives is checked by moving such DP to a second specifier of vP/TrP. If this is the case, the derivation of unaccusatives would proceed as follows: in Nominative languages the DP moves directly to Spec(TP), as it has no feature to check against v°, while in Ergative languages the DP moves first to Spec(vP), checking ABS Case there (like the DP-object of transitives) and then to Spec(TP), in order to check EPP feature.

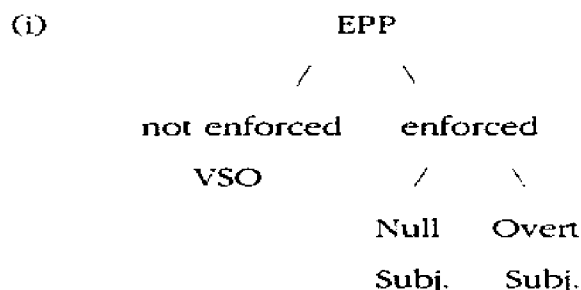
17. Cocchi (1995, 1998) and Manzini & Savoia (1998) argue indeed that some Central-Southern Italian dialects exhibit a sensitivity to Person feature which recalls Ergative languages. Such a sensitivity is not shown in morphological Case-markings, but rather it affects Auxiliary selection in compound perfect clauses.

18. For brevity, in the discussion below I will indicate person features simply with their corresponding numbers (1/2 vs. 3).

19. The sole other split which is witnessed to separates all pronouns from full DPs (Dixon, 1979).

20. For instance, the absence (or limited use) of passive in a given languages could render a sentence like (14) the sole available option, thus allowing the Economy principle to be violated.

21. The assumption that OCP is or is not enforced might be seen as *ad-hoc*. However, it does not certainly represent the sole case in which a parameter may yield a tripartite option (decomposable in the form of two binary choices). One such example is the EPP parameter. We know in fact that, though the majority of languages respect EPP, there are some languages (so-called non-EPP languages, like VSO languages, cf. fn. 12) in which this parameter is not enforced. Conversely, among EPP languages we can distinguish into Null subject and Overt subject languages. The EPP parameter can thus be represented as in (i) below, which mirrors (15) in the text:



It is probably not accidental that the case in which the parameter (be it OCP or EPP) is not enforced is the least represented cross-linguistically. This is also coherent with the view of OCP as a principle of Economy.

22. Sentences like (14) in the text, thus, give empirical support to the hypothesis assumed in this work, namely that ERG and ACC are not checked by the same head, contrary to what assumed in Jelinek (1993) and other works (cf. fn. 11 above), since they can indeed co-occur in the same sentence, though limitedly. These sentences would be hard to derive in a framework where ERG and ACC are checked by the same head.

23. Furthermore, my analysis departs from Laka (1993) in that she makes a distinction between Case-checking in Spec(AGRoP) and VP-internal Case-checking: the former accounts for the object of transitives, and the latter for the object of unergatives, as well as for partitive objects. In my model this distinction becomes immaterial, and in both cases the internal argument checks Case in Spec(VP).

24. If we assume, in line with Chomsky (1995), that base generated positions cannot be checking positions, namely that checking implies movement of the DP, we can still assume that the DP_{subject} checks Case against V+v by simply moving to a second Spec(vP), namely to the position used for the checking of ACC Case in the Minimalist Program. Indeed Chomsky (1995) admits that a subject could move to that position, though he rules it out

in the case of transitive sentences because it gives rise to an overall more costly derivation. As in the case at hand there is no object-DP which needs to check Case, this option can still be available.

25. The label 'antipassive' is due to the fact that this construction, common in Ergative languages, is somehow opposite to passive, which characterizes Nominative languages (even if it is not unknown to Ergative languages too): while, in a passive clause, the semantic agent loses its argumental status and appears in oblique position (if it appears at all), in an antipassive clause it is the object which loses argumental status and surfaces (also optionally) as an oblique. What the two constructions have in common is that the argument which does not normally carry the default Case will take it, being the sole real argument left in the clause. Hence the shift from marked to unmarked Case obeys the principle of Economy summarized by OCP.

26. An apparent exceptions is represented by Italian and French past participle, which may agree with the DP-object of a transitive clause, while it never agrees with the DP-subject. This is the reason why Cocchi (1995, 1998) analyses Italian and French past participles as examples of Split Ergativity (Ergative constructions in otherwise Nominative languages).

27. See Bobaljik (1993) for a detailed discussion of the properties of surface subjecthood of the ERG-marked DP.

REFERENCES

- Bhatt, R. M. (1994) *Word order and Case in Kashmiri*. Ph.D. Dissertation, University of Illinois at Urbana-Champaign.
- Bittner, M. (1994) *Ergativity, binding & scope*. Dordrecht: Kluwer Academic Publishers.
- Bittner, M. and K. Hale (1996a) "The structural determination of Case and Agreement", *Linguistic Inquiry* 27/1, 1-68.
- Bittner, M. and K. Hale (1996b) "Ergativity: Towards a heterogeneous class", *Linguistic Inquiry* 27/4, 531-604.
- Bobaljik, J. D. (1992) "Nominally absolutive is not absolutely nominative", *Proceedings of WCCFL 11*, CSLI, Stanford University.
- Bobaljik, J. D. (1993) "Ergativity and ergative unergatives". In C. Phillips (ed.) *Papers on Case and Agreement II*. MIT Working Papers in Linguistics 19. 45-88.
- Bobaljik, J. D. (1995) *Morphosyntax*. Ph.D. dissertation, MIT.
- Bok-Bennema, R. (1991) *Case and Agreement in Inuit*. Ph.D. Dissertation, Katolieke Universiteit Brabant.
- Braningan, P. (1993) "Locative inversion and the Extended Projection Principle", Memorial University of Newfoundland, ms.
- Campana, M. (1992) *A movement theory of ergativity*. Ph.D. Dissertation, McGill University.
- Chomsky, N. (1981) *Lectures on government and binding*. Dordrecht: Foris.

- Chomsky, N. (1993) "A minimalist program for linguistic theory", *MIT Occasional Papers in Linguistics* 1. Cambridge, Mass.: MIT Press.
- Chomsky, N. (1995) *The minimalist program*. Cambridge, Mass.: MIT Press.
- Chomsky, N. (1998) "Minimalist inquiries: The framework", unpublished manuscript, MIT.
- Cocchi, G. (1995) *La selezione dell'ausiliare*. Rivista di Grammatica Generativa - Monograph Series, Padova: Unipress.
- Cocchi, G. (1997) "Nominative vs. Ergative languages: a proposal", *Quaderni del Dipartimento di Linguistica* 8, Università di Firenze, 23-36.
- Cocchi, G. (1998) "Ergativity in Romance languages". O. Fullana and F. Roca (eds.), *Studies on the Syntax of Central Romance Languages*. Universitat de Girona: 83-99.
- Collins, C. (1997) *Local economy*. Cambridge, Mass.: MIT Press.
- Comrie, B. (1981) *Language universals and linguistic typology*. Oxford: Blackwell.
- DeLancey, S. (1981) "An interpretation of split ergativity and related patterns", *Language* 57/III, 626-657.
- Delfitto, D. (1997) "Aspect, genericity and bare plurals", Utrecht University, ms.
- Dixon, R. M. W. (1979) "Ergativity", *Language* 55, 59-138.
- Dixon, R. M. W. (1994) *Ergativity*. Cambridge Studies in Linguistics 69, Cambridge University Press.
- Gair, J. and K. Wali (1987) "AGR and agr in Marathi". Paper presented at *South Asian Languages Analysis Roundtable* 9, Cornell University, Ithaca.
- Garrett, A. (1990) "The origin of NP split ergativity", *Language* 66, 261-296.
- Hale, K. and S. J. Keyser (1991) "On argument structure and the lexical expression of syntactic relations", MIT, ms.
- Harris, A. (1982) "Georgian and the unaccusative hypothesis", *Language* 58, 290-306.
- Jelinek, E. (1993) "Ergative 'splits' and argument type". In J. D. Bobaljik and C. Phillips (eds.) *Papers on Case and Agreement I*. MIT Working Papers in Linguistics 18. 15-42.
- Johns, A. (1992) "Deriving ergativity". *Linguistic Inquiry* 23, 57-87.
- Koizumi, M. (1993) "Object agreement phrases and the split VP-hypothesis". In J. D. Bobaljik and C. Phillips (eds.) *Papers on Case and Agreement I*. MIT Working Papers in Linguistics 18. 99-148.
- Laka, I. (1993) "Unergatives that assign ergative, unaccusatives that assign accusative". In J. D. Bobaljik and C. Phillips (eds.) *Papers on Case and Agreement I*. MIT Working Papers in Linguistics 18. 149-172.
- Larson, R. (1988) "On the double object construction", *Linguistic Inquiry* 19/3, 335-391.
- Levin, J. and D. Massam (1985) "Surface Ergativity: Case/Theta relations re-examined", *Proceedings of NELS* 15, GLSA, UMass, Amherst.
- Mahajan, A. (1990) *The A/A-bar distinction and movement theory*. Ph.D. Dissertation, MIT.
- Mahajan, A. (1994) "The ergativity parameter: *have-be* alternation, word order and split ergativity", *Proceedings of NELS* 24 (1993), UMASS, Amherst: 317-331.

- Manzini, M. R. and L. M. Savoia (1998) "Clitics and auxiliary choice in Italian dialects: Their relevance for the person ergativity split", *Recherches Linguistiques à Vincennes* 27, 115-138.
- Marantz, A. (1991) "Case and licensing", *Proceedings of ESCOL*, New Jersey.
- Massam, D. (1985) *Case Theory and the Projection Principle*. Ph.D. Dissertation, MIT.
- Murasugi, K. (1992) *Crossing and nested paths: NP movement in accusative and ergative Languages*. Ph.D. Dissertation, MIT.
- Neeleman, A. and F. Weerman (1996) *Case and Argument in a Flexible Syntax*. Utrecht University, draft version.
- Savoia, L. M. and M. R. Manzini (in prep.) *I dialetti italiani*. Bologna: Il Mulino.
- Silverstein, M. (1976) "Hierarchy of features and ergativity". In R. M. W. Dixon (ed.) *Grammatical Categories in Australian Languages*. Canberra Institute of Aboriginal Studies. 112-171.
- Thráinsson, H. (1997) "Topics in Icelandic (and Germanic) syntax", Class lectures, LOT Winter School 1997, University of Nijmegen 13-17.1.1997.
- Urbanczyk, S. (1992) "Ergativity and AGR-O in Nisgha", Ms, Umass, Amherst.
- Watters, D. (1973) "Clause pattern in Kham". In A. Hale (ed.) *Clause, Sentence and Discourse Patterns in Selected Languages of Nepal*. Norman, OK: Summer Institute of Linguistics. 39-202.
- Weerman, F. (1996) "Asymmetries between nominative, accusative and inherent Case", *OTS Working Papers*, Utrecht University.