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The blind Case

Burzio's Generalization and its Image in the Mirror

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Introduction

In this paper, it is argued that the effects of Burzio's Generalization (henceforth BG) can be shown to follow from Case Theoretic issues alone, without appeal to thematic relations. This argument is outlined in Laka (1993b); the present paper is an extension of that argument, with further refinements regarding Case Theory, the nature of Case assigning categories, and a broader look into cross-linguistic data.

The puzzle posed by BG is: 'why should thematic demotion affect Case assignment if they are independent processes?' Here, a view of Case Theory is presented which is indeed blind to thematic relations, and thus requires no reference to the assignment of an external θ -role by the predicate to account for a given Case assignment pattern.

There is a different question, related in some sense to BG, which inquires about the nature of unaccusativity and processes of argument demotion in predicates. This issue will not be explored in this paper;¹ the concern here is to provide an account for the apparent correlation between θ -relations and Case, by showing that there is no inherent, necessary connection between external θ -role assignment and Accusative Case assignment. The paper therefore concentrates on the Case theoretic aspects of BG, and argues that Case Theory alone provides for an explanation of the empirical effects covered by this influential generalization.

The paper is divided into seven sections. Section 1 introduces BG and the challenge it presents to a modular view of the Grammar. Section 2 presents Case Theory as assumed in this paper; Section 3 discusses the notion of *active feature*, which plays a crucial role in the derivation of BG; Section 4 puts forward the derivation of BG and illustrates the parametric nature of this generalization;

Section 5 discusses in more detail the independence of Case Theory from thematic relations, the various consequences of this independence, and it illustrates the Case Theoretic results of various thematic operations. Section 6 discusses the nature of Aspect as a Case assigner and its implication in split Case systems. Section 7 summarizes the conclusions arrived at in the paper.

1. Burzio's Generalization

Since Perlmutter's (1978) pioneering work, it is widely accepted that the set of predicates traditionally described as intransitives divides into two natural classes: *unergative predicates* and *unaccusative predicates*. The examples in (1) illustrate the two types in English and Spanish:

- (1) a. *a woman spoke clearly*
 b. *a woman arrived on time*
 c. *una mujer habló claramente*
 d. *una mujer llegó a tiempo*

Although the sentences in (1) appear identical in the surface, Perlmutter (1978) argued that sentences containing unergative predicates like (1a) and (1c), differ significantly from sentences containing unaccusative predicates like (1b) and (1d). These differences are due to the fact that two distinct initial syntactic representations are involved: specifically, Perlmutter argued that the initial relation born by 'a woman' or 'una mujer' with respect to the predicate 'speak' or 'hablar' is that of *subject*, whereas the initial relation born by 'a woman' or 'una mujer' with respect to 'arrive' or 'llegar' is that of *object*. In subsequent representations (or *strata*, in Relational Grammar terms), both predicate types converge in a representation where 'a woman' or 'una mujer' bears the relation *subject* with respect to the predicate, yielding the surface forms in (1).

This research project, concerned with the original syntactic representation of predicates and the transformations that these original representations undergo, is pursued in Burzio (1986), within the Theory of Government and Binding (Chomsky (1981) and subsequent work). Burzio's account of the surface similarity of (1a) and (1b) relies crucially on what has come to be known as *Burzio's Generalization*, stated in (2):

- (2) [-A] ↔ [-T]

BG claims that if a verb does not assign an external θ -role, then it does not assign Case. Consider some of the phenomena covered by this generalization:

arguments of unaccusative predicates do not surface bearing Accusative Case, even though they originally sit in the canonical position where this Case is assigned (3a), (3b); passive participles may not assign Accusative Case to their complements because no external argument is assigned (3c), (3d).

- (3) a. **arrived her*
 b. *she_i arrived t_i*
 c. **was appointed her*
 d. *she_i was appointed t_i*

BG has been a powerful drive in the understanding of the similarities between unaccusative predicates and various types of constructions, such as passives, causative alternations, middles and raising predicates. BG has thus brought together a number of apparently disparate phenomena, and has facilitated the conception of the Grammar as the interplay of various modules that give rise to seemingly unrelated grammatical constructions.

BG has also presented a problem for the Theory of Syntax as outlined in the Government and Binding framework: how can thematic relations condition Case relations in such a direct fashion, if these are two independent sub-theories of the grammar? Where exactly does the connection between the two ends of the correlation lie? In other words, it is not clear what principle or principles could derive BG, because there is no explicit connection between external θ -role assignment and Accusative Case assignment besides the very one stated by the generalization itself. Thus, BG appears to cover a wide range of phenomena, but it poses a challenge to the idea that human grammars are designed in a strictly modular way, an idea put forward by Chomsky (1981), which lies at the very core of the articulation of the Government and Binding Theory, and subsequent developments within this framework (Chomsky 1989, 1993).

BG is intended as a generalization about Universal Grammar. However, here it will be argued that it concerns only a subpart of the possible human grammars: BG effects surface only in Nominative Case systems, and not in Ergative Case systems. This will provide the basis for the derivation of BG argued for in this paper; but before turning to it, a few considerations regarding Case Theory are in order. They are presented in the following two sections.

2. On Case Theory

Following the framework for Case Theory presented in Chomsky (1989), where Case is argued to be a Spec-Head relation involving AgrS and AgrO, Bobaljik

(1992) argues that the crucial factor determining the differences between Nominative and Ergative Case systems is the choice of Case when only one Case is required: (a) if the Case chosen is assigned by AgrS and Tense, the resulting Case system is Nominative; (b) if the Case chosen is assigned by AgrO and Verb, the resulting system is Ergative.² More specifically, Bobaljik argues that the choice of Case is determined by the 'activation' of either AgrS or AgrO. This paper follows the basic insight of Bobaljik's approach to the Ergative/Nominative distinction.

In Laka (1993b), based on the behavior of unergative predicates in Basque (as well as Georgian and Hindi), it is argued that the 'activation' of the relevant Case does not depend on the choice of Agr, but rather, on the Case feature borne by the Case assigner (Tns or V): Nominative systems activate the Case feature born by Tense (C_T), whereas Ergative systems activate the Case feature born by the Verb (C_V).

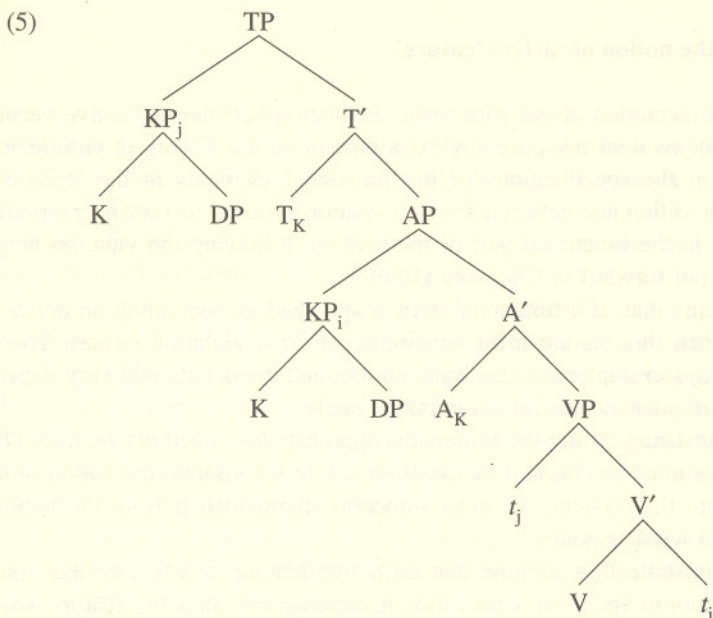
Here, the claim that Agreement is not a Case assigner will be maintained (see also Marantz (1991), Bittner & Hale (1996a), den Dikken (1993) and Holloway King (1994), among others for different approaches to Case Theory that share this view). A modification of Laka (1993b) will be pursued: in particular, the paper argues that the set of Case assigning categories does not include lexical elements such as the Verb. Instead, the set of Case assigners is argued to include functional categories such as Tense and Aspect, and possibly Prepositions and Determiners.³ Evidence supporting the role and relevance of Aspect in Case assignment is discussed in Section 6.

I adopt the idea put forward in Bittner & Hale (1996a), following a proposal by Lamontagne & Travis (1987), that Case on the argument DP is a functional head which dominates DP, call it K, and which projects a KP. Support for this view is found in the consistency in which Case particles (that is, K heads in this approach) abide by the head parameter: head final languages display head final K elements, while head initial languages display initial K elements. Some examples are illustrated in (4), which are taken from Bittner & Hale (1996a) except for the Basque data. Examples (4a,b) correspond to head final languages, and (4c,d) to head initial languages:

- | | | | |
|-----|----|---|---------|
| (4) | a. | [_{KP} [_{DP} [_{NP} <i>sula</i>] <i>ba</i>] <i>ra</i>] | Miskitu |
| | | deer DET ACC | |
| | b. | [_{KP} [_{DP} [_{NP} <i>orein</i>] <i>a</i>] <i>k</i>] | Basque |
| | | deer DET ERG | |
| | c. | [_{KP} <i>ya</i> [_{DP} [_{NP} <i>khlaa</i>]]] | Khasi |
| | | ACC DET tiger | |

- d. [_{KP} e [_{DP} le [_{NP} teine]]] Samoan
 ERG DET girl

It will be assumed here that all Case marked arguments are KPs, including Nominative/Absolutive bearing arguments, which tend to display a phonologically empty K. From this perspective, Case assignment is the discharge of the Case feature borne by a Case assigning head to the K head of the argument, as shown in (5).⁴ For the sake of consistency in the notation, the C_T and C_A features will be renamed as K_T and K_A, and this notation will also be used in glosses, to indicate what type of Case has been assigned to a particular KP. The feature-bearing Tense and Aspect heads are represented as T_K and A_K.



From this perspective, then, the difference between Nominative/Accusative Case systems and Ergative/Absolutive Case systems depends on whether the Case feature of Tense (K_T) or Aspect (K_A) is active, since that will be the feature discharged when only one Case is required. This is schematically illustrated in (6):

- (6) a. K_T → K_A primary Case assigner Tns: Nominative system
 b. K_A → K_T primary Case assigner Asp: Ergative system

As (6) illustrates, a Nominative system is one where the Case feature borne by Aspect (K_A) can only be activated if the Case feature borne by Tense (K_T) has been discharged. In an Ergative system, the Case feature borne by Tense can only be activated if the Case borne by Aspect has been discharged. This approach to Case Theory is conceptually compatible with the notion of 'dependent case' developed in Marantz (1991, this volume), and also with the notion of 'Case-competitor' in Bittner & Hale (1996a, b), although the actual analyses differ significantly. What is shared is the insight that Ergative or Accusative are only assigned if the conditions for the assignment of Absolutive or Nominative are satisfied.

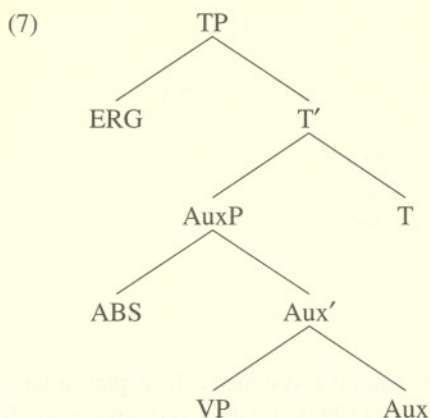
3. On the notion of 'active feature'

The implementation of the parametric distinction between K_T active versus K_A active systems does not pose any extra burden on the Theory of Grammar. It is encoded in the specifications of the functional elements in the lexicon. The parametric difference between the two systems reduces to varying properties of the items in the functional part of the lexicon, following the view on language variation put forward in Chomsky (1989).

Assume that, if a functional item is specified as containing an *active* Case feature, then this feature must be discharged or a violation ensues. There are several ways to implement this basic notion, and the details will vary depending on the particular theoretical assumptions made.

For instance, within the Minimalist approach developed in Chomsky (1992), all features must be checked by LF. If we are to incorporate the notion of *active* feature into this system, we must somehow distinguish it from the notions of *strong* and *weak* features.

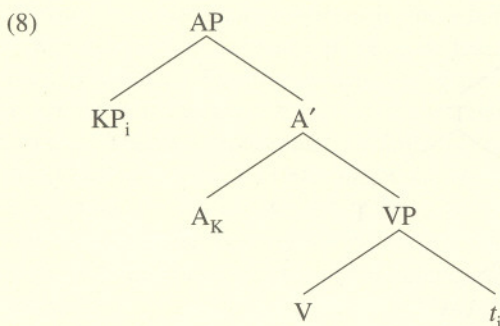
To illustrate this, assume that an *active* feature is a feature that must be checked prior to Spell Out. Under this characterization, an *active* feature would be identical to a *strong* feature, which is not desirable: there are systems where both Case features are strong in the sense of Chomsky (1992): they force overt raising to the specifier positions of inflectional heads. An example of such a language is Basque, argued in Laka (1988), (1993a), to involve S-Structure representations like (7) (for the purpose of the argument, AuxP correlates with AP):



A complete identification of the notions *active* and *strong* yields the unwanted result that both K_T and K_A would require to be assigned whenever Tense and Aspect are involved in the derivation, contrary to fact. In monadic predicates only K_A is checked.

Consider the following approach: an *active* feature is one that must be checked prior to PF or Spell Out. A *strong* feature, if checked, is checked prior to Spell Out. A *weak* feature is checked after Spell Out. The consequences of this modification of Chomsky's (1993) typology of features are the following: an *active* feature is always *strong*, in the sense that it must be discharged prior to Spell Out or the derivation crashes. A *strong* feature is not available after Spell Out, therefore it must be checked, if required, prior to it. A *weak* feature is available at LF. In this typology, the assumption is that features that are not active are available but need not be checked.⁵

Thus, an Ergative system involves an *active* K_A and it may involve a strong K_T or a weak one. This entails that the argument assigned K_A will have to raise to [SpecAsp] prior to Spell Out (8):



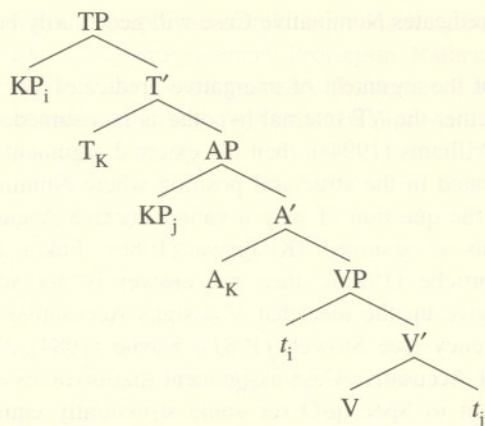
Consequently, it is predicted that all Ergative systems will display a basic OV order, a generalization noted in Mahajan (1993): ergative systems do not display rigid VO order.

This generalization must be distinguished from another typological generalization, attributed to Keenan by Woodbury (1977), which claims that there are no verb-medial ergative languages. A look at cross linguistic data suggest that there are in fact verb medial ergative languages, although the ones found involve an OVS order (that is, an ABS-V-ERG order). Among these languages we find Pāri, a Nilotic language, one of the few African languages to display ergativity, (Andersen (1988), and also the following, noted by Dixon (1994): Kuikuró (Brazil), Macushi (Carib family), Huastec (Mexico), Tolai (Austronesian) and Waurá (Brazil).⁶

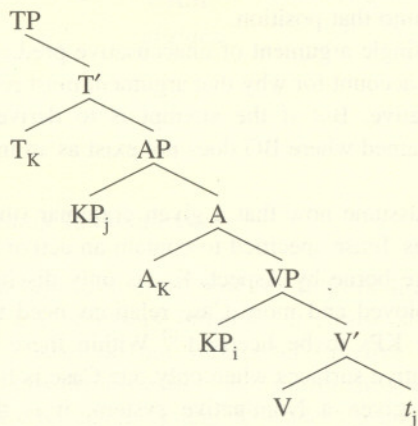
As for the K_T feature, two choices are available: if K_T is strong, movement of the Ergative argument will be overt, as in Basque, Hindi, and Georgian (9a). Levin (1983), Ortiz de Urbina (1986), Mahajan (1990), Marantz (1991), Bobaljik (1992), Holloway King (1994) and others have provided evidence from these languages that the Ergative argument is higher than the Absolutive argument in transitive predicates.

If K_T is weak, movement of the argument will not be overt, yielding a Spell Out representation where the Absolutive argument is higher than the Ergative argument. The latter is the S-structure configuration argued for by Bittner & Hale (1996a) for Dyirbal and Inuit (9b).⁷ Within the present approach, the Spell Out placement of the Ergative Case marked argument in these languages follows from the weakness of the K_T Case feature. Verb medial ergative languages such as the ones mentioned above, would also result from a derivation where the ergative case is assigned by means of a weak feature.

(9) a.



b.



Functional categories may or may not contain an *active* feature in their lexical specifications. The distinction between an Ergative and a Nominative system depends on what functional elements, those belonging to the categories Tense or Aspect, contain an active Case feature. As will be discussed in Section 6, the specification for an active feature is a property of particular lexical items, rather than syntactic categories. This in turn lends further support to the claim that the source of language variation rests solely on the properties of particular functional elements.

Without an approach in terms of active Case features, a number of fundamental problems remain unexplained in Case Theory. Consider the better studied Nominative systems. More specifically, consider how it is standardly determined

that in monadic predicates Nominative Case will necessarily be assigned instead of Accusative.⁸

In the case of the argument of unergative predicates, the answer may vary depending on whether the VP internal hypothesis is assumed. If this hypothesis is not assumed (Williams (1994)), then the external argument of the unergative predicate is generated in the structural position where Nominative is assigned, and that answers the question of why it cannot receive Accusative.⁹ If the VP internal hypothesis is assumed (Kitagawa (1986), Fukui & Speas (1986), Koopman & Sportiche (1987)), then the answer is not so straightforward, especially if we give up the idea that V assigns Accusative Case to its sister under strict adjacency (see Stowell (1981), Kayne (1984), Chomsky (1989)). Under a picture of Accusative Case assignment that involves either government by V or movement to SpecAgrO (or some structurally equivalent functional projection), it is unclear what prevents the external argument of the unergative predicate from moving into that position.

Consider now the single argument of unaccusative predicates. In this case, we encounter BG as the account for why that argument must receive Nominative Case instead of Accusative. But if the attempt is to derive BG, theoretical scenarios must be entertained where BG does not exist as an independent axiom of the theory.

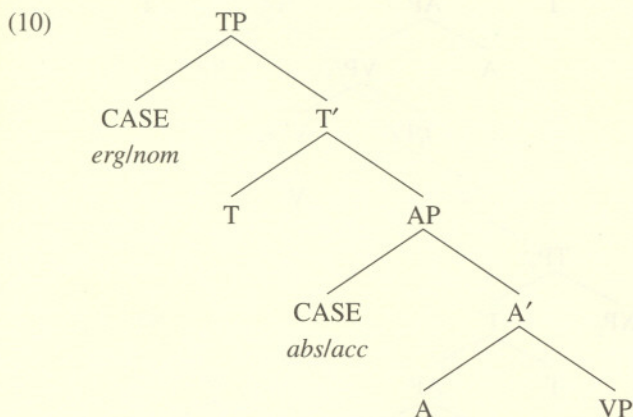
As an alternative, assume now that a given grammar (the one underlying English, for instance) has Tense specified to contain an active Case feature, K_T , and that the Case feature borne by Aspect, K_A , is only discharged or checked when K_T has been employed and more Case relations need to be established, because there are more KPs to be licensed.¹⁰ Within these assumptions, the question of why Nominative surfaces when only one Case is licensed receives a straightforward answer, given a Nominative system: it is the only possible outcome. Moreover, we can do that without appeal to BG.

This is the core of the derivation of BG that will be offered in more detail in the following section.

From this perspective, then, it is not only the need to account for Ergative versus Nominative Case systems that forces us to conclude there is such a thing as an active Case feature. This is independently motivated in order to arrive at a Theory of Case that contains no reference to Thematic relations, a Theory of Grammar that does not need to state BG as an independent axiom.

In sum, the Case Theory defended here is basically the one argued for in Bobaljik (1992), adopted in Chomsky (1992), and it incorporates the claim that Case is a functional category, (Bittner & Hale (1996a)). It should be noted, however, that this proposal departs from Bobaljik (1992) in the following

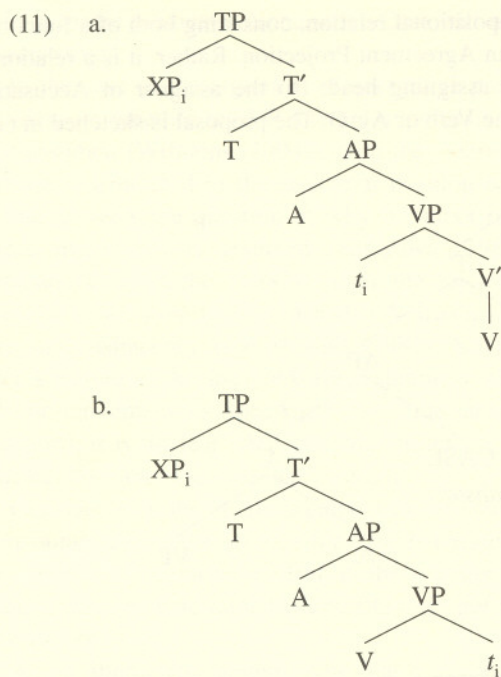
respects: (a) Case is not a compositional relation, consisting both of a functional head with a Case feature and an Agreement Projection. Rather, it is a relation of specification to a single Case assigning head; (b) the assigner of Accusative/Absolutive is Aspect and not the Verb or AgrO. The proposal is sketched in (10):



4. BG and its image in the mirror

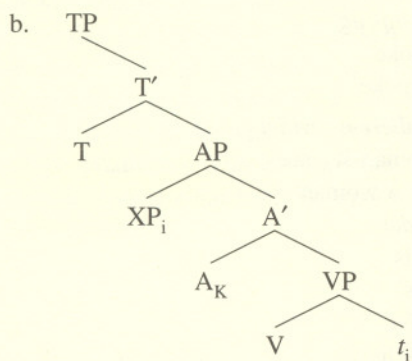
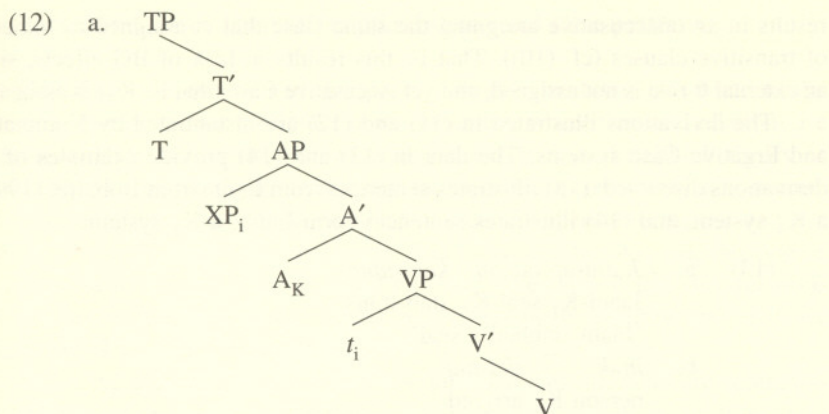
In this section, it is argued in detail how BG follows directly from Case Theory, without appeal to any accessory principle. It is also shown how Case Theory predicts that BG effects do not surface in Ergative Case systems. Instead, Ergative Case systems display effects that mirror those covered by BG.

Consider first a K_T active system. Consider Case assignment in the case of unergative predicates (11a). In this system, unergative predicates result in the assignment of Nominative Case to the external argument. In a K_T grammar, the one argument that requires to be Case-licensed will have to find itself in a configuration of Nominative Case assignment, necessarily, because otherwise K_T would remain unassigned.



Now consider the case of the unaccusative predicate, shown in (11b). Following Perlmutter (1978) and Burzio (1986), the argument of the verb is born as a complement. Again, the only choice for the argument is to move to Spec of TP, to receive Nominative. Any other choice would leave the active Case feature of Tense unassigned. This follows without any special mention of the fact that the predicate is unaccusative. Even though (11a) and (11b) differ regarding the structure of their VPs, they are identical as far as Case Theory is concerned: only one argument requires Case. This entails that only one Case is required. The only possibility for a K_T active system is to assign Nominative. Therefore, the effects covered by BG follow necessarily, but they are not due to the thematic properties of the predicate. They obtain because unaccusative predicates are monadic.

It also follows from this Case assignment mechanism that BG effects will only surface in K_T active configurations. In K_A active configurations, the system predicts no BG effects. Consider the derivation of an unergative and unaccusative predicate in a K_A active configuration, as illustrated in (12a) and (12b) respectively.



The representation in (12a) involves the same type of predicate as (11a). In this case, the active Case feature is the one borne by Aspect, and therefore the only argument requiring it receives it. This result is the mirror image of BG: a predicate that does not have an internal argument cannot assign Ergative Case. The 'subject' of the unergative predicate displays the same Case as the 'object' of a transitive predicate, mirroring the fact that in Nominative languages the 'object' of the unaccusative predicate receives the same case as the 'subject' of the transitive predicate. Again, this 'mirror image BG' follows directly from Case Theory, without reference to the nature of the predicate. The Case effects follow from the fact that the unergative predicate is syntactically monadic and requires only one Case relation.

The representation in (12b) involves an unaccusative predicate. There being only one argument again, only the Case feature of Aspect is assigned. This

results in an unaccusative assigning the same Case that is assigned to 'objects' of transitive clauses (cf. (10)). That is, this results in lack of BG effects, since an external θ -role is not assigned, and yet Accusative Case (that is, K_A) is assigned.

The derivations illustrated in (11) and (12) are instantiated by Nominative and Ergative Case systems. The data in (13) and (14) provide examples of the derivations discussed: (13) illustrates sentences from Inuit (from Bobaljik (1992)) a K_A system, and (14) illustrates sentences from Latin, a K_T system.

- (13) a. *Jaani-up natsiq kapi-jana*
 Jaani- K_T seal- K_A stab-trans
 'Jaani stabbed a seal'
- b. *inuk tiki-tuq*
 person- K_A arrived
 'The person arrived'
- c. *iliniaqtitsiji uqaq-tuq*
 teacher- K_A spoke
 'The teacher spoke'
- (14) a. *mulier mulierem videt*
 woman- K_T woman- K_A sees
 'a woman saw a woman'
- b. *mulier cadet*
 woman- K_T falls
 'a woman falls'
- c. *mulier ridet*
 woman- K_T laughs
 'a woman laughs'

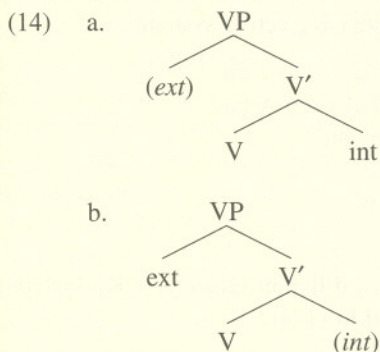
Sentences (13a) and (14a) illustrate transitive sentences, where both Cases have been assigned. Sentences (13b) and (14b) illustrate unaccusative predicates, where the discrepancy in Case assignment between Inuit and Latin can be observed. Latin displays BG effects, in that it does not assign Accusative Case, whereas Inuit does not. Finally, (13c) and (14c) illustrate unergative predicates, where the Case discrepancy still obtains: Inuit assigns Accusative to its argument, whereas Latin assigns Nominative. Note the contrast between (13a) and (13c), where a 'mirror BG' effect obtains.

In what follows, this general argument will be pursued more exhaustively. Various thematic configurations will be presented, and their Case consequences in the two systems will be considered. It will be argued that all the derivations predicted to be possible are instantiated by particular grammars, whereas those that are not permitted are not attested.

5. Thetablind Case: Thematic configurations and Case patterns

The Case Theory argued for in this paper is highly modular; it is blind to the particular operations that take place in the predicate, where thematic relations are configured (Hale & Keyser (1993)). In this sense, it is a 'thetablind' theory of Case. The type of predicate determines the number of arguments that require Case licensing; this is the only condition that thematic operations impose on Case Theory. It is only this factor that Case Theory is sensitive to: whether one or more arguments require to be licensed by Case. The type of thematic relations that the arguments bear with respect to the predicate is irrelevant to Case assignment. This is not information Case Theory is sensitive to.¹¹

Following Hale & Keyser (1993), I assume that thematic roles are configurationally determined, and not primitives of the Grammar. I will also follow these authors in the idea that Incorporation, a variety of X^0 movement (Baker (1988)), is involved in processes of thematic conflation. Consider the two main configurations that are found in the predicate structure, illustrated in (14): (14a) contains no external argument, either because it has been demoted or because the predicate does not assign it; the type of VP in (14a) corresponds to unaccusatives and passive type predicates. The configuration in (14b) illustrates a predicate where the internal argument has been incorporated onto the predicate, yielding a single argument in need for Case.



The VPs illustrated in (14) have been simplified for ease of exposition. The details of VP structure are not crucial for the argument developed here (see Larson (1988), Hale & Keyser (1993)). What is crucial is that both in (14a) and in (14b) only one argument requires Case. This accounts for why Case Theory treats both (14a) and (14b) similarly: in K_T systems both predicates result in the assignment of K_T , whereas in K_A systems both predicates result in the assign-

ment of K_A . The same predicate configuration results in different Case patterns in Nominative and Ergative systems, whenever the predicate yields one argument to be Case licensed, regardless of the nature of the thematic relation borne by the argument with respect to the predicate.

The paradigm in (15) illustrates the various constructions that arise from the combination of the predicates in (14) and the two types of Case systems:

(15)	ARGUMENT STRUCTURE	ARGUMENT STRUCTURE
	VP[-ext][+int]	VP[+ext][-int]
ACTIVE CASE K_A	no BG effects lack of passive impersonals	"mirror BG" effects (in unergatives) antipassives
ACTIVE CASE K_T	BG unaccusatives passive	lack of antipassive indefinite object deletion

Within this approach, all construction specific-processes derive from the general mechanisms, including BG. Constructions turn out to be epiphenomena, resulting from the interaction of grammatical modules, in the spirit of Chomsky (1989).

Thus, for instance, a predicate with no external argument, combined with an Aspect head containing and active Case feature, yields a sentence with an argument Case marked by Aspect. These are instances of unaccusative predicates that do not abide by BG; (13b) illustrated an example from Inuit, and (16b) illustrates an example from Basque, another K_A active system:

- (16) a. *emakume-a-k emakume-a ikus-i du*
 woman-D- K_T woman-D- K_A see-A has
 'the woman saw the woman'
- b. *emakume-a etorr-i da*
 woman-D- K_A arrive-A is
 'the woman arrived'

The same predicate configuration yields a different effect in a K_T system such as English, as shown in (17b) as opposed to (17a):

- (17) a. *she- K_T saw her- K_A*
 b. *she- K_T arrived*

A well known instance of predicates displaying an alternation in the licensing of an external argument is found in 'causative-alternation' predicates. Once again, a K_T system will display BG effects, whereas a K_A system will not. Assuming the Nominative Case system to be familiar to the reader, (18) provides data from

two Ergative systems, illustrating the consistent assignment of K_A to the internal argument of the predicate.

- (18) a. *emakume-a-k emakume-a hil du*
 woman-D- K_T woman-D- K_A kill has
 'the woman killed the woman'
- b. *emakume-a hil da*
 woman-D- K_A die is
 'the woman died'
- c. *pro piniartog toquppaa*
 K_T hunter- K_A kill-IND-3SG3SG
 '(he) killed the hunter'
- d. *piniartog toquppoq*
 hunter- K_A kill-IND-3SG
 'The hunter died'
- e. *emakume-a-k leiho-a ireki du*
 woman-D- K_T window-D- K_A open has
 'the woman opened the window'
- f. *leiho-a ireki da*
 woman-D- K_A open is
 'the opened the window'

Examples (18a–d) are parallel in their Case marking, and they correspond to K_A systems: (18a, b) are from Basque; examples (18c, d) are taken from Marantz (1984), and belong to Greenlandic Eskimo. (18e, f) illustrate one more instance of unaccusative alternation in Basque. From data like (16) and (18) we can conclude that K_A systems do indeed not display any observable effects corresponding to Burzio's Generalization; this observation was made by Levin (1983) for Basque. It can now be shown to be a necessary consequence of Case Theory.

Consider now two more instances of alternation in the assignment of an external argument: one results in the construction named 'passive', and it surfaces in Nominative grammars. The other one results in the construction named 'impersonal' and it is pervasive in Ergative systems. within this view of Case theory, both consist of a predicate where an external θ -role has not been assigned. They depart in the resulting Case pattern in the usual manner seen so far. Assuming the first construction to be familiar, (19) illustrates the second one, which turns out to be the equivalent of the passive construction in a Nominative system. The predicate configuration is the same, but there is no difference in the Case assigned to the internal argument that requires licensing.

- (19) a. *emakume-a-k etxe-a saldu du*
 woman-D-K_T house-D-K_A sold has
 'the woman sold the house'
- b. *etxe-a saldu da*
 house-D-K_A sold is
 'the hose has been sold'

(19a) is a transitive sentence, where both Cases have been discharged. (19b) contains the same verb, but the predicate contains no external argument. While in a Nominative system this yields a 'passive' (K_T being active), in an Ergative system no significant Case alternation obtains, and the resulting construction is labelled 'impersonal' (Ortiz de Urbina (1986)). The 'passive' is standardly understood to be a composite of (a) a predicate where the external argument has been demoted (or 'absorbed') and (b) the assignment of Nominative Case to the internal argument. Given the proposal put forward here, it follows that Ergative grammars do not display 'passives' of the sort Nominative grammars do: (a) is in principle available, but not (b). Moreover, it also follows that Nominative Case (K_T) must be assigned to the only argument of the passive predicate, without any stipulation about the Case assigning properties of the past participle being required.

So far, given the paradigm in (15), we have considered the constructions resulting from the combination of a predicate with no external argument and the two Case systems available. Let us now turn our attention to the combination of predicates where the internal argument has incorporated onto the predicate, leaving only the external argument in need of Case licensing.

In a K_A system, two constructions result from this combination. The best known one is the 'antipassive'. As argued by Baker (1988), antipassives involve transitive predicates where the internal argument has incorporated onto the predicate. Given this, only the external argument needs Case. In a K_A system, it follows necessarily that this Case is K_A (Accusative/Absolutive), the same Case assigned to the internal argument of a transitive construction. The incorporated argument can be 'doubled' by an adjunct, in the same fashion in which the 'by phrase' doubles the demoted external argument in a passive. Examples of the 'antipassive' construction are illustrated in (20):

- (20) a. *Jaani-up tuktu tuqut-va*
 Jaani-K_T caribou-K_A kill-3SG-3SG
 'Jaani killed a caribou'
- b. *Jaani tuktu-mik tuqut-si-vuq*
 Jaani-K_A caribou-P_{ins} kill-ANTP-3SG
 'Jaani killed caribous'

It has been widely noted in the literature that the antipassive construction is characteristic of Ergative systems, and does not surface in Nominative grammars. Here, the antipassive construction turns to be the mirror image of the passive in a very specific sense. The antipassive construction, like the passive, consists of two components: (a) a predicate where the internal argument has been incorporated, (b) assignment of Absolutive Case to the external argument (which in the transitive version is assigned Ergative). Note that (b) now follows given (a), but it will only in a K_A system, not in a K_T one.

A Nominative system will display no Case alternation given a predicate with an incorporated internal argument and its unincorporated transitive version. As argued by Postal (1977), the 'Indefinite object deletion' construction can be considered the Nominative system equivalent of the antipassive:

(21) *this woman writes*

The antipassive cases and the Indefinite object deletion in (21) share the same predicate structure, in that an internal argument is incorporated onto the predicate (a). However, they differ necessarily in the Case theoretic consequences of this incorporation.

The 'mirror BG' effects displayed by unergative predicates in Ergative and Nominative systems also follows within the current proposal: in K_A systems the external argument of the unergative is prevented from receiving K_T Case, as illustrated in the derivation (12a), and instantiated in the Inuit example in (13). In K_T systems, however, this is the only Case available for the only argument in need of Case (11a), (14c). As argued in Laka (1993b), lack of incorporation of the internal argument of the unergative predicate in the syntax yields a transitive pattern, and thus both K_A and K_T are discharged, regardless of which category bears the active Case feature. This yields languages like Basque, which have been described as a special type of Ergative system. See Section 6 for further discussion.

It has been argued so far that the only information Case Theory is sensitive to is the number of arguments that require Case in a given sentence. The nature of the thematic relation born by the argument with respect to the predicate is not relevant for Case purposes. In this sense, Case is 'thetablind'. This picture emerges rather simply given the structural configuration of the sentence assumed throughout this paper: As argued by the proponents of the VP internal hypothesis, thematic relations are established in the predicate, the projection of the lexical category V. As argued by Chomsky (1989), Case licensing takes place in a configurationally higher domain, which involves specifier positions of inflectional categories. Therefore, the relation between thematic operations and Case is mediated by movement (or any equivalent chain-creating device), and thus the

relation between thematic relations and Case is configurationally determined, not inherently specified by the thematic relation itself.

From this perspective, consider the data in (22), from the Australian language Dyirbal (taken from Marantz (1984)): (22a) illustrates a transitive sentence, containing the predicate 'hide', where both Ergative (K_T) and Absolutive (K_A) have been assigned. In (22b), one of the arguments of the predicate 'hide' is missing, or rather it is encoded in the morpheme *yirnu*, glossed as a 'reflexive'.

- (22) a. *bala yugu bangul yarangu buyyban*
 stick-ABS man-ERG hides
 'Man hides stick'
- b. *bayi yara buybayirnu*
 man-ABS hides-REFL
 'Man hides' (himself or something)

As reported in Marantz (1984), the meaning of (22b) can either be the unaccusative version of (22a), 'a man hides', or the antipassive version of (22a), 'a man hides (something or other)'. The difference between the two readings depends on whether *yirnu* reflects the absorption of an external argument, in which case the unaccusative reading obtains, or whether *yirnu* reflects the incorporation of an internal argument, in which case the antipassive or 'indefinite object deletion' reading obtains. Crucially, though, Case treats both instances identically, because as far as Case is concerned they are identical: both involve *one* argument in need of Case, so both result in assignment of K_A to that argument, given the fact that Dyirbal is an Ergative grammar.

6. Aspect as a Case assigner

It is a well known fact that a given grammar can display both an Ergative Case system and a Nominative Case system, depending on a number of factors. Dixon (1994), in his extensive discussion of Ergativity, considers various types of split Case systems. According to Dixon's description, there are three main factors that can trigger an alternation of Ergative and Nominative Case systems in a given grammar: (I) The semantic nature of the verb. (II) The semantic nature of the NPs. (III) Aspect, Tense, Mood alternations.¹²

The group in (I) contains Ergative Case systems that distinguish unergative predicates from unaccusatives: The subject of the unergative predicate receives the same Case as the subject of a transitive predicate (K_T ; S_A in Dixon's notation); The subject of the unaccusative predicate receives the same Case as

the object of the transitive (K_A ; S_O in Dixon's notation). Dixon refers to this type as *Split-S System*. As argued in Laka (1993b), this distinct Case marking of unergative and unaccusative predicates need not reflect a change from a K_A active system to a K_T active system. Rather, it can be accounted for by assuming that the unergative predicates, which involve a transitive frame (Hale & Keyser (1993)), have not undergone incorporation of the complement, and are therefore forced to assign both K_A and K_T . Unaccusative predicates, on the other hand, only discharge K_A .

The group in (II) contains grammars where pronouns differ in their marking from NPs, and where within NPs there might also be differences in marking depending on factors such as [\pm human], [\pm animate] etc. This type will not be discussed here, see Jelinek (1993) and Phillips (1993) for discussions and proposals regarding these phenomena.

The type of split in (III) is widespread, although of course not present in all Case systems. Thus, some systems are exhaustively K_T active, like English, and others are exhaustively K_A active, like Basque, regardless of the particular Tense and Aspect heads involved. These are systems where (a) all the lexical elements belonging to the syntactic category Tense have an active Case feature, in the case of a consistently Nominative systems; or (b) all the lexical elements belonging to the syntactic category Aspect have an active Case feature, in the case of a consistently Ergative system.¹³

Consider now the systems where a split occurs depending on the aspectual specifications of the clause. As described by Dixon (1994), if a grammar shows an Aspect-sensitive split, the Ergative system is found in the perfective paradigm, and the Nominative system is found in the imperfective paradigm. Within the Case Theory laid out in this paper, this type of split can be accounted for given the Case specifications of particular lexical items belonging to the category Aspect. Consider two grammars that display aspectually based splits: Hindi and Georgian.

In Hindi, the perfective paradigm yields and Ergative Case systems, whereas the imperfective paradigm yields a Nominative Case system, as illustrated in (23) (from Mahajan (1990), except for Case notation):

- (23) a. *Sitaa vah ghar khariddegii*
 sita-FEM- K_T that house- K_A buy-FUT-FEM
 'Sita will buy that house'
- b. *Sitaa ne vah ghar kharidaa thaa*
 sita-FEM- K_T that house-MASC- K_A buy-PERF-MASC be-PAST
 'Sita (has) bought that house'

In (23a), there is no perfective morphology, and a Nominative/Accusative pattern ensues, whereas in (23b), where the perfective aspectual morpheme has been highlighted, an Ergative-Absolutive pattern occurs. Within the current proposal, this variation can be accounted for in the following manner: an imperfective aspect head in Hindi is not specified with an active Case feature, but rather it is specified with a weak Case feature. A perfective aspect head, however, is specified with an active Case feature.

Consider Georgian, where the Aorist series displays an Ergative Case system. As noted by Holisky (1981) and Holloway King (1994), the Aorist series verbs are aspectually perfective. An account along the lines provided for Hindi can thus be provided. Holloway King (1994) argues that the Aorist heads an AspP which is capable of assigning Case. In Holloway King's proposal the Case assigned by the aorist head is Ergative. Here, a modification of Holloway King (1994) will be assumed: the aorist is specified with an active Case feature, and it assigns Absolutive, in the same fashion that the perfective aspect head does in Hindi. This modification yields the same results as far as the Case patterns encountered in the Aorist series, and provides a less language-specific approach to the Georgian split.

In recent literature, a number of proposals have articulated the notion of Aspect as a Case assigner, in various ways (Travis (1991), Borer (1993), van Hout (1994), Yadroff (1994), (to appear)). Some of these works are primarily concerned with the articulation of *aktionsart* in Syntax, whereas others are more concerned with Case alternations induced by various aspectual properties of the predicate. Any attempt to incorporate Aspect into the domain of functional projections faces the difficulty imposed by the multiple ambiguity of the term (Verkuyl (1993), Tenny (1994)). The notion of Aspect intended in this paper is not the one related to the telic properties of the predicate, but rather the more inflectional one related to perfectivity. I will leave for now open the question of how the different relations traditionally included under the label 'aspect' and discussed in the above mentioned works relate to each other and to Syntax.

If Case is a relation involving Tense and Aspect, splits conditioned by particular values of these categories can provide a way to account for their influence in the Case system. Moreover, this approach provides a natural explanation for why the Ergative/Nominative distinction is not a distinction between grammars, and for why both systems can be found in one grammar:¹⁴ it is the specifications of the functional elements implicated in the architecture of the clause that determine what Case system obtains. Therefore, there are no Nominative and Ergative grammars, but rather configurations of Case assigning categories with certain specifications that determine the outcome of the syntactic representations.

7. Conclusion

It has been argued in this paper that Burzio's Generalization derives without stipulation from Case Theory. The Case Theory argued for follows Bobaljik (1992), Chomsky (1992) and Laka (1993b), and it relies crucially on the notion of *active* feature. Case Theory is 'thetablind'; information about particular θ -roles being assigned to particular arguments is not available to Case relations. Case is only sensitive to the number of arguments that require licensing, regardless of their thematic status.

The Case assigners in the clause have been argued to be Tense and Aspect: a Tense active system assigns Nominative whenever a monadic predicate is involved. Burzio's Generalization follows from this fact. An Aspect active system assigns Absolutive whenever a monadic predicate is involved. This results in the absence of Burzio's Generalization (BG) effects in these systems. Moreover, Aspect active systems display 'mirror BG' effects, as predicted by Case Theory. It has also been argued that constructions such as the passive and the antipassive surface only in Nominative and Ergative systems respectively due to the nature of Case assignment. Evidence for Aspect being one of the Case assigning categories in the clause is drawn from split-Case systems, where the specifications of Aspect determine whether an Ergative or a Nominative case pattern results.

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Notes

1. See Levin & Rappaport Hovav (1995) for a proposal and a thorough discussion of the thematic/lexical aspects of unaccusativity and argument demotion. Throughout this paper, it is assumed that the notion of 'thematic role' that is relevant to Syntax is configurationally derived, as argued in Hale & Keyser (1993).

2. It should be noted that the naming of the cases varies in the traditional terminology for each of the systems. The terminology chosen above reflects the configurations responsible for the assigned Case, to avoid terminological confusion. In Bobaljik's proposal, the Case assigned by AgrS is the one labelled Nominative or Ergative, depending on the case system. Similarly, the Case assigned by AgrO is labelled Accusative or Absolutive.
3. The case of Prepositions and Determiners as Case assigners will not be pursued in detail here, where I focus on Nominative/Accusative. See Johnson (1992) and Bittner & Hale (1996a) for proposals related to this issue.
4. Bittner & Hale (1996a) assume that Nominative and Absolutive arguments are not headed by K. They do not assume that Case is assigned by specific Case assigning categories either.
5. This approach is incompatible with the proposal that VSO languages involve VP internal arguments at Spell Out.
6. Andersen shows convincingly that Pãri displays verb medial order, thus disproving the generalization that Woodbury attributes to Keenan, while maintaining an OV surface order:

- (i) a. *ùbùr á-túuk*
Ubur-ABS ASP-play
'Ubur played'
- b. *dháagò á-yàan ùbùrr-i*
woman-ABS ASP-insult Ubur-ERG
'Ubur insulted the woman'

Examples taken from Andersen (1988).

7. Bittner & Hale (1996b), following Dixon (1972), argue that in Dyirbal and Inuit, the Nominative/Absolutive argument ends up in a higher position than the Ergative argument. Their proposal is illustrated in (i):
 - (i) $[_{IP} \text{NOM}_i [_r [_{VP} \text{ERG}_j [_{VP} \text{t}_i \text{V}]] \text{I}]]$
 where the ERG argument, being the external argument, is adjoined to VP (a position that Bittner & Hale (1996a) assume is the subject site universally). The motivation for (i) is relative clause formation in Dyirbal and Inuit, and Topic chain in Dyirbal. Relative clause formation in Inuit and Dyirbal only licenses gaps in Nominative position, and similarly the gap in Topic chain constructions must be Nominative. Regarding other phenomena, such as control, Dyirbal and Inuit appear to have higher Ergative arguments, however. Bittner & Hale (1996b) assume that control is dealt within the VP positions, regardless of the raising of the Nominative argument. Bittner & Hale argue that Inuit and Dyirbal have Internal Headed Relative Clauses, and account for the restriction in Relativization resorting crucially to (i). For relevant purposes, the representation in (9b) shares all the relevant properties of (i).
8. By 'standard', it is meant versions of Case Theory such as Chomsky (1981), (1986), (1991).
9. This type of approach does not seem able to provide with a straightforward account for Case systems that depart from the one instantiated by English. It remains to be seen how the various types of Ergative systems fit this particular approach to Case.
10. The argument made here does not depend on a particular version of what category is responsible for what Case feature. Thus, this argument can also be made if Nominative/Ergative is argued to be assigned by some other category besides Tense, or if Accusative/Absolutive is argued to be assigned by some other category besides Aspect.
11. Inherent Cases have been argued to be necessarily linked to particular θ -roles. Thus, for instance, Belletti (1988) argues that Verbs assign an inherent Case to their complements,

independently from structural Case assignment. De Hoop (1992) argues extensively that Belletti's inherent Case is 'structural' in the sense that it is not necessarily linked to a particular θ -role.

12. Dixon (1994, page 101) cites a fourth factor, under the heading 'Main' versus 'subordinate' clause split', but concludes that this fourth type appears in closer examination to belong to the aspectual split in III.
13. Ezeizabarrena (1996) discusses evidence from language acquisition data, where a correlation between the acquisition of aspectual morphology and Absolutive Case obtains in Basque.
14. Here, it is assumed that what distinguishes a particular grammar from another is a set of morphological specifications on the functional elements available in the Lexicon. The lexical elements (the open class of the lexicon), and the syntactic operations available all form part of Universal Grammar.

References

- Abney, S. 1987. *The English Noun Phrase in its Sentential Aspect*. PhD Dissertation, MIT.
- Andersen T. 1988. "Ergativity in Pāri, a Nilotic OVS language". *Lingua* 75:289-324.
- Anderson, S. 1976. "On the notion of subject in ergative languages". In *Subject and Topic*, C. N. Li (ed.), 3-34. New York: Academic Press.
- Burzio, L. 1986. *Italian Syntax: A government-binding approach*. Dordrecht: Reidel.
- Baker, M. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Belletti, A. 1988. "The case of unaccusatives". *Linguistic Inquiry* 19: 1-34.
- 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 theory of a heterogeneous class". *Linguistic Inquiry* 27(4).
- Bobaljik, J. 1992. "Nominally absolutive is not absolutely nominative". In *Proceedings of WCCFL11*, Los Angeles, CA: UCLA.
- Borer, H. 1993. "The projection of arguments". In *Functional Projections*, E. Benedicto and J. Runner (eds) 19-47, Amherst, MA: GLSA.
- Burzio, L. 1986. *Italian Syntax: A government and binding approach*. Dordrecht: Reidel.
- Chomsky, N. 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- Chomsky, N. 1986. *Knowledge of Language: Its nature, origins and use*. New York: Praeger.
- Chomsky, N. 1989. "Some notes on economy of derivation and representation". In I. Laka and A. Mahajan (eds) *Functional Heads and Clause Structure* [MITWPL Vol. 10]. Cambridge, MA: Dept. of Linguistics and Philosophy, MIT. Reprinted in 1991 in *Principles and Parameters in Comparative Grammar*, R. Freidin (ed.), 417-54. Cambridge, MA: MIT Press.
- Chomsky, N. 1992. "A minimalist program for linguistic theory". In *MIT Occasional Papers in Linguistics* 1, [MITWPL]. Cambridge, MA: Dept. of Linguistics &

- Philosophy, MIT. Reprinted in 1993 in *The View from Building 20: Essays in linguistics in honor of Sylvain Bromberger* [Current Studies in Linguistic Series 24], K. Hale and S. J. Keyser (eds). Cambridge, MA: MIT Press.
- den Dikken, M. 1993. "Auxiliaries and Participles". Ms. Free University Amsterdam/HIL.
- de Hoop, H. 1992. Case Configuration and Noun Phrase Interpretation. PhD Dissertation, University of Groningen.
- Derbyshire, D. C. 1986. "Comparative survey of morphology and syntax in Brazilian Arawakan". In *Handbook of Amazonian languages* Vol. I, D. C. Derbyshire and G. K. Pullum (eds), 469–566. Berlin: Mouton de Gruyter.
- Dixon, R. M. W. 1972. *The Dyrbal Language of North Queensland* [Cambridge Studies in Linguistics 9]. Cambridge: CUP.
- Dixon, R. M. W. 1994. *Ergativity* [Cambridge Studies in Linguistics 69]. Cambridge: CUP.
- Ezeizabarrena, M. J. 1996. *Adquisición de FLEX en euskera y castellano por niños bilingües*. Bilbao: Servicio de Publicaciones de la UPV-EHU.
- Hale, K. and Keyser, S. J. 1993. "On argument structure and the lexical expression of syntactic relations". In *The View from Building 20: Essays in linguistics in honor of Sylvain Bromberger*. [Current studies in linguistics series 24], K. Hale and S. J. Keyser (eds), Cambridge, MA: MIT Press.
- Holisky, D. 1981. "Aspect theory and Georgian aspect". In *Tense and Aspect* [Syntax and Semantics 14], 127–144. New York: Academic Press.
- Holloway King, T. 1994 "SpecAgrP and case: Evidence from Georgian". In *The Morphology Syntax Connection* [Working Papers in Linguistics]. Cambridge, MA: MIT.
- Jelinek, E. 1993. "Ergative 'splits' and argument type". In *Papers on Case and Agreement 1* [MIT Working Papers in Linguistics 18], D. Bobaljik and C. Phillips (eds), 15–42. Cambridge, MA: MIT.
- Johns, A. 1992. "Deriving ergativity". *Linguistic Inquiry* 23(1): 57–88.
- Kayne R. 1984. *Connectedness and Binary Branching*. Dordrecht: Foris.
- Kitagawa, Y. 1986. Subjects in Japanese and English, PhD. Dissertation, University of Massachusetts at Amherst.
- Koopman, H. and Sportiche D. 1987. "Subjects". M., UCLA.
- Laka, I. 1988. "Configurational heads in inflectional morphology: The structure of the inflected forms in Basque". *Anuario del Seminario de Filología Vasca 'Julio de Urquijo'* XXII-2: 343–365.
- Laka, I. 1993a. "The structure of inflection: A case study in X⁰ syntax". In *Generative Studies in Basque Linguistics* [Current Issues in Linguistic Theory 105], J. I. Hualde and J. Ortiz de Urbina (eds), 21–70. Amsterdam: John Benjamins.
- Laka, I. 1993b. "Unergatives that assign ergative, unaccusatives that assign accusative". In *Papers on Case and Agreement 1* [MIT Working Papers in Linguistics 18], J. Bobaljik and C. Phillips (eds), 149–72. Cambridge, MA: MIT.
- Lamontagne, G. and Travis, L. 1987. "The syntax of adjacency". In *Proceedings of WCCFL 6*, 173–186.
- Larson, R. 1988. "On the double object construction". *Linguistic Inquiry* 19(3): 335–392.
- Levin B. 1983. On the Nature of Ergativity. PhD Dissertation, MIT.

- Levin, B and Rappaport Hovav, M. 1995. *Unaccusativity: At the syntax-lexical semantics interface*. Cambridge, MA: MIT Press.
- Mahajan A. K. 1990. The A/A' Distinction and Movement Theory. PhD Dissertation, MIT.
- Mahajan, A. K. 1993. "The ergativity parameter: Have-be alternation, word order and split ergativity". *Proceedings of NELS 1993*.
- Marantz, A. 1984. *On the Nature of Grammatical Relations*. Cambridge, MA: MIT Press.
- Marantz, A. 1991. "Case and licensing". *Proceedings of ESCOL 1991*, 234-253. [reprinted in this volume].
- Ortiz de Urbina, J. 1986 *Parameters in the Grammar of Basque*. Dordrecht: Foris.
- Perlmutter, D. 1978. "Impersonal passives and the unaccusative hypothesis". *Berkeley Linguistic Society* 4:157-89.
- Phillip, C. 1993. "Conditions on agreement in Yimas". In *Papers on Case and Agreement 1* [MIT Working Papers in Linguistics 18], J. Bobaljik and C. Phillips (eds), 173-212. Cambridge, MA: MIT.
- Postal, P.M. 1977. "About a 'nonargument' for raising". *Linguistic Inquiry* 8:141-55.
- Stowell, T. 1981. *Origins of Phrase Structure*. PhDDissertation, MIT.
- Tenny, C. 1994. *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer Academic Publishers.
- Travis, L. 1991. "Derived objects, inner aspect, and the structure of VP". *Proceeding of NELS 22*.
- van Hout, A. 1994. "Projection based on event structure". In *Lexical specification and lexical insertion*, P. Coopmans, M. Everaert and J. Grimshaw (eds). Hillsdale, NJ: LEA.
- Verkuyl, H. 1993. *The Theory of Aspectuality*. Cambridge: CUP.
- Williams, E. 1994. *Thematic Structure in Syntax*. Cambridge, MA: MIT Press.
- Woodbury, A. C. 1977. "Greenlandic Eskimo, ergativity, and relational grammar". In *Grammatical Relations* [Syntax and Semantics 8], P. Cole and J.M. Sadock (eds), 307-336. New York: Academic Press.
- Yadroff, M. 1995 "Verbal aspect and object licensing". Ms., Indiana University.
- Yadroff, M. 1996 "SpecAsP and case assignment". In *Formal Approaches to Slavic Linguistics 3*, J.Toman (ed.), Ann Arbor, MI:Michigan Slavic Publications.