

The Status of Ergative Case in Basque:
A Minimalist Approach

A Thesis
Presented to
The Division of Philosophy, Religion, Psychology, and Linguistics
Reed College

In Partial Fulfillment
of the Requirements for the Degree
Bachelor of Arts

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May 2007

Approved for the Division
(Linguistics)

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Abstract

This thesis analyzes distribution of core argument case-morphology in Basque within the Minimalist framework proposed by Chomsky (1995) and further developed by Chomsky (2000) and Pesetsky & Torrego (2004). Core arguments in Basque typically surface in one of two case forms: ergative and absolutive. Absolutive has been identified as a special instance of nominative case by many linguists (Bittner & Hale, 1996; Woolford, 2006; Legate, 2006), while Holmer (1999) argues that it is actually accusative case. Opinions on ergative case are more split, with some (Bittner & Hale, 1996; Holmer, 1999; Fernández & Albizu, 2000) arguing that ergative case is assigned by I^0 , either under Government or Agree, and others (Legate, 2006; Woolford, 2006; Spring, 2000) arguing that ergative is inherent case assigned by v^0 to its specifier.

In the process of examining the claims above, I will conclude that absolutive is nominative and ergative is inherent. However, I will also provide conceptual and empirical arguments that ‘nominative’ and ‘inherent’ are misunderstood notions that require a considerable amount of reanalysis themselves. The primary motivation for this is the proposed elimination of the [CASE]-feature, whose status as an element in Minimalism is problematic.

The thesis is divided into five chapters. The first chapter introduces a basic vocabulary for discussing argument roles and outlines some descriptive data about case marking in Basque. In chapter 2 I summarize two earlier approaches to the problem (Bittner & Hale (1996) and Holmer (1999)), both within the Government and Binding framework of Chomsky (1981, 1982). In chapter 3 I outline the main elements of the framework that I have adopted for this thesis, including the radical claim that nominative case is an uninterpretable [TENSE] feature on D^0 , rather than a *sui generis* [CASE]-feature. In chapter 4 I argue that absolutive can only be nominative case (uT on D^0), while ergative case is assigned by a totally different mechanism (inherent case assignment) and is not mutually exclusive with absolutive case. I also argue that the theory as it currently stands cannot provide a mechanism for inherent case assignment without considerable conceptual and empirical costs. Finally, in my conclusion I discuss the importance of empirical coverage compared to conceptual coherency and reiterate the importance of eliminating [CASE]-features from Minimalism, then I speculate about the relevance of my findings to a general typology of ergativity.

Acknowledgments

I would like to start by thanking my parents. They have made everything possible for me at every step in the process that brought me here, and without their sustained love and support I could never have made it this far. This thesis is dedicated to them as a small token of my gratitude for the sacrifices they have made to allow me to pursue my interests, no matter how esoteric.

I would also like to thank my friends, who helped make this an unforgettable year. Everyone who left notes on my desk or went with me to concerts, coffee shops, bookstores, record shops, and movies did their part to keep me from going nuts. My housemates also helped take my mind off of my thesis when I was at home, for which I am particularly grateful. I cannot deny special distinctions in this category to: Alex Hoyt, Angélique Thomas, Arielle Silverman, Claire Cronin, Cricket Erler, Emily Collinson, Jade Giotto, Jeff Lynn, Katie Judson, Laura Schuchardt, Maron & Raina Levesque, Max & Michael Harris, Norah Hoover, and Rachel Tomlinson.

My interest in ergativity and related phenomena was sparked by John B. Haviland during the two excellent classes I took with him here at Reed. These were the first classes that I ever took in linguistics, but John's continued influence on my thinking and my conception of language is impossible to quantify. No less important are the contributions of my other professors, Steve Hibbard and Matt Pearson. Steve has broadened my view of language, and has consistently reminded me that there is more to it than just grammar, while Matt has taught me that linguistics is a science, and is as dependent upon sound theoretical arguments and empirical testing as biology or physics. Matt was also my advisor for this thesis, and deserves additional thanks for his role in guiding me through the process from start to finish, without ever making it too easy for me.

I owe a great deal to the organizers and participants of the 2007 Cornell Undergraduate Linguistics Colloquium for their feedback on an early version of this analysis, especially Matt Tucker and Dr. Julie Legate. Many of my views about syntax have been shaped by my conversations with Matt over the last year, and Julie provided suggestions that had a tremendous effect on the outcome of my thesis. Both of them provided much-needed encouragement when I felt as if I couldn't be further from a solid thesis. Any mistakes that remain are, of course, my own.

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List of Abbreviations

A	Agent/Transitive Subject
S	Intransitive Subject
O	Transitive Object
1SA, 3PE, etc.	1st Person Singular Absolutive, 3rd Person Plural Ergative, etc.
ABS	Absolutive Case
ALL	Allative
AUX	Auxiliary
DAT	Dative
DET	Determiner Clitic
ERG	Ergative Case
GEN	Genitive
INF	Infinitive
IPF	Imperfective
LOC	Locative
NOM	Nominative
PST	Past Tense
GB	Government and Binding (Chomsky, 1981, 1982)
MP	Minimalist Program (Chomsky, 1995, 2000, 2001)

Chapter 1

Introduction

1.1 Proposal

This thesis aims to analyze certain aspects of case marking in Basque, an isolate spoken in a region of Spain and France known as the Basque country by about one million people. In particular, I will examine the distribution and status of ergative case in Basque, comparing it to the unmarked structural case often called ‘absolutive’ but increasingly identified with nominative in the literature. In chapter 2, I will examine two derivational approaches to Basque ergativity—the first identifying absolutive case with nominative and the second identifying it with accusative. In the following chapter I will outline my own framework, a slightly unorthodox version of Chomsky’s Minimalist Program (Chomsky, 1995, 2001, 2000; Pesetsky & Torrego, 2004) which includes as one of its major innovations the elimination of structural case as a *sui generis* feature. In chapter 4, I will show that absolutive case is, in fact, nominative (albeit under a slightly different definition of the term) and that ergative case is *inherent case*—assigned under a completely different relation, the nature of which is difficult to account for within the theory.

Finally, in my conclusion I will examine how my findings relate to an overall typology of ergativity and remark on the ramifications of my analysis for the interdependence between the semantic and syntactic roles of arguments.

1.2 Universal Semantic-Syntactic Primitives

A discussion of ergativity cannot be undertaken without reference to a set of primitives from which categories like ‘nominative,’ ‘ergative,’ etc. are composed. It is assumed in this thesis that there are three universal argument roles relevant to the syntax and semantics of all human languages (Dixon, 1994):

A Agent/Transitive Subject.

S Subject (intransitive).

O Object (transitive).

The terms ‘transitive subject’ and ‘intransitive subject’, although present in the literature, are misleading, as explained by Du Bois (1987) p. 807:

It is by now rather widely recognized that the descriptive term ‘subject’ in its traditional sense significantly distorts the phenomenon of ergativity...[an ergative language] would seem somewhat perverse in splitting up an apparently basic category like subject, assigning half its contents to a contrasting category like object.

For this reason, the designators **A** and **S** are used rather than other candidates like **T_S** and **I_S** (Transitive Subject and Intransitive Subject).

- (1) A verb is **transitive** *iff* it licenses two or more core arguments.

Identifying which argument in a transitive construction should be called **A** and which **O** is done with some appeal to semantics. **A** arguments tend to be initiators of the event, causers, agents, etc., while **O** arguments tend to be themes, patients, undergoers, etc. Highly agentive verbs like ‘hit’ or ‘grab’ show this distinction much better than *psych-predicates* like ‘fear/frighten’ or ‘believe/convince,’ which even in English alternate with respect to which semantically identified argument is in which syntactic role: for example ‘Zombies_A frighten me_O’ is semantically equivalent to ‘I_A fear zombies_O,’ even though the syntactic roles are reversed.

A transitive verb will license an A and an O argument (at least), while an intransitive verb requires only an S argument. If the A and O arguments of a particular transitive clause are misidentified, the meaning of the sentence will be reversed, so languages show an overwhelming tendency to clearly distinguish between transitive arguments. There is, however, no basic sentence type that includes only S and either O or A, so it seems intuitively less crucial to distinguish between S and either of the other two roles.

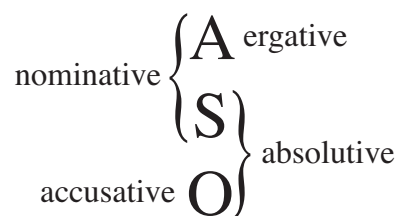


Figure 1.1: *Combinations of S with A and O and corresponding case names. The left side illustrates the more common Nominative/Accusative paradigm, used by nearly all Indo-European languages. The right side illustrates the Ergative/Absolutive paradigm, used by Basque and common in Australian and South American languages.*

In practice, most languages take advantage of this opportunity for economy and pattern S arguments together with either A or O. This means that one (and only one) of the arguments in a transitive clause will typically resemble (in case marking, word order, agreement, etc.) the sole argument of an intransitive, although it will be in a different argument role (A or O as opposed to S). As figure (1.1) illustrates, when S patterns together with A, the resulting cases are called ‘nominative’ and ‘accusative,’ when S patterns together with O, the resulting cases are ‘ergative’ and ‘absolutive.’

The particular ergative morphology of Basque is exemplified in (2) (taken from Arrieta et al. (1986))¹:

- (2) a. *Azeria ibil-tzen da.*
fox.ABS walk.IPF AUX.3SA
‘The fox walks.’

¹Examples from Basque come from Hualde & Ortiz de Urbina (2003) unless otherwise noted.

- b. *Oiloa ibil-tzen da.*
 chicken.ABS walk-IPF AUX.3SA
 ‘The chicken walks.’
- c. *Azeria-k oiloa ja-ten du.*
 fox.ERG chicken.ABS eat-IPF AUX.3SA/3SE
 ‘The fox eats the chicken.’
- d. **Azeria-k ibil-tzen da.*
 fox.ERG walk-GER AUX.3SA
 ‘The fox walks.’

The suffix *-k* here can only be used to mark the transitive verb argument that is in the A role, like ‘the fox’ in (2c). The same marking is ungrammatical when applied to other kinds of arguments, such as those in the S role (2d). The absolutive marker *-Ø* is used for S arguments (as in 2b) and O arguments (‘the chicken’ in 2c). Describing arguments as either A, S, or O on generally semantic or relational grounds is often enough to predict their case morphology in very basic sentences. Further analysis, however, will show that this description is not adequate to account for all of the facts of the distribution of these two morphemes. For example, we should expect that the A argument of a verb like *edatzu* ‘drink’ would always appear in ergative case, but there is a particular construction involving a word *ari* (a progressive marker) in which both the A and O arguments appear in absolutive case.

- (3) a. *Nik ardo beltza edaten dut.*
 1SG-ERG wine black.ABS drink-IPF AUX.1SA
 ‘I drink red wine (i.e. regularly.)’
- b. *Ni ardo beltza eda-ten ari naiz.*
 1SG-ABS wine black.ABS drink-IPF PROG AUX.1SG
 ‘I am drinking red wine (i.e. now.)’ (cf. 2d)

Nothing about the event structure or argument relations can predict that the pronoun *ni* here will appear without ergative case in the progressive,² and so we must investigate the

²Hopper & Thompson (1980) suggests that progressive clauses are ‘less transitive’ than punctual ones. Although this seems to provide a ready explanation for the curious case-marking of *ari* constructions, Basque has a number of different ways of marking progressive aspect and *ari* is the only one with apparent effects on transitivity.

syntactic structure of Basque to find an appropriate account. One such account is offered in §2.3, which I will refine in §4.3.5.

Another curious exception to generalized principles of ergative case assignment comes in the form of so-called unergative verbs. Descriptively, unergative verbs are intransitive verbs whose sole (S) argument bears certain properties in common with A arguments, whereas unaccusative verbs show the inverse—their S arguments seem to have more in common with O arguments. The distinction can be seen with the English verbs ‘eat’ and ‘close’:

- (4) a. I_A have eaten dinner. (transitive)
- b. I_S have eaten. (unergative)
- (5) a. I closed the door_O. (transitive)
- b. The door_S closed. (unaccusative)

By examining the subscripts on ‘I’ and ‘the door,’ we can see that ‘eat’ treats S and A arguments alike (for purposes of subjecthood) while ‘close’ treats S and O arguments alike. In (4), the ‘eater’ is always the subject, regardless of the transitivity of the sentence, but in (5) it is the O argument of the transitive clause that gets treated as the S argument when the verb is intransitive.

Because Basque habitually treats S and O arguments alike, we would predict that most intransitive verbs will be unaccusative, and in fact they are. However, there is a class of verbs in Basque that take ergative subjects even when there is no direct object:

- (6) a. *Urak irakin du.*
water.ERG boil AUX.3SA/3SE
‘The water has boiled.’
- b. *Amaiak hitz egin du.*
Amaia.ERG word do AUX.3SA/3SE
‘Amaia has spoken.’
- c. *Leiho-ko kristalak distiratu du.*
window-ALL glass.ERG shine AUX.3SA/3SE
‘The glass in the window shone.’

In each of these verbs it is the S argument that receives ergative case. Because ergative case is typically reserved for A arguments, this constitutes a patterning together of S with A and thus unergativity. There is no evidence that these unergative verbs form a semantic class in Basque, although in many languages they do (Dixon, 1994), but verbs like ‘boil’ and ‘shine’ do not have any of the features that unergatives in other languages often show, such as agentivity, durativity, etc. The structure of verbs like these will be explored in §4.3.1, but for now the most important thing is to show that case marking in Basque is often difficult to predict, and that our semantic intuitions will not suffice to explain why this is so.

The term ‘**split-ergativity**’ has become popular for describing languages that show ergativity in certain areas, and accusativity in others. As a trait of languages, this term is not particularly useful, as it appears that every so-called ‘ergative language’ exhibits some accusativity, even prototypically ergative languages like Dyirbal (Dixon, 1976), and thus all ‘ergative’ languages are really *split-ergative* languages. In Dyirbal, unlike Basque, ergative arguments will only appear when there is an overt absolutive argument (i.e., Dyirbal has no unergative verbs), but personal pronouns in Dyirbal are marked with nominative and accusative case:

- (7) a. *ɲuma banaga-nyu*
 father.ABS return-NONFUT
 ‘Father returned.’
- b. *yabu miyanda-nyu*
 mother.ABS laugh-NONFUT
 ‘Mother laughed.’
- c. *yabu ɲuma-ɲgu bura-n*
 mother.ABS father.ERG see-NONFUT
 ‘Father saw mother.’
- d. *ɲuma banaga-nyu yabu-ngu bura-n*
 father-ABS_{S/O} return-NONFUT mother.ERG see-NONFUT
 ‘Father returned and mother saw [him].’

- (8) a. *ɲana banaga-nyu*
 1PL.NOM_S return-NONFUT
 ‘We returned.’
- b. *nyurra ɲuma bura-n*
 2PL.NOM_A father.ABS see-NONFUT
 ‘You saw father.’
- c. *ɲana-na yabu-ɲgu bura-n*
 1PL-ACC_O mother.ERG see-NONFUT
 ‘Mother saw us.’
- d. *ɲana banaga-nyu nyurra bura-n*
 1PL.NOM_{S/O} return-NONFUT 2PL.NOM_A see-NONFUT
 ‘We returned and you saw [us]. (cf. 7d)’

Sentences (8a)–(8c) demonstrate the justification for labeling these pronouns ‘nominative’ and ‘accusative’—they canonically represent either the S/A argument or the O argument, respectively. Sentence (8d) is thus surprising when it shows a ‘nominative’ pronoun behaving as if it were absolutive—sharing the roles of S and O. The best explanation is that nominative pronouns, when they are the grammatical subject, raise to the same structural position typically occupied by an absolutive grammatical subject. Observations like these, showing that case is a manifestation of strictly syntactic relations rather than semantic roles, are key to supporting the single key assumption of this thesis: case and related phenomena are determined *not* by semantic properties or event structure, but by the syntactic structure of a sentence.

Chapter 2

Earlier Analyses

2.1 Introduction

In this chapter I will look at two attempts to explain ergative-absolutive patterning under the Government and Binding program. The first, an article by Maria Bittner and Ken Hale from 1996, offers a cross-linguistic typology of ergativity with some explicit consideration for Basque. Their theory is well argued and coherent within that framework and posits that Basque's absolutive case should be classified cross-linguistically with nominative: unmarked structural case assigned under government by C^0 . However, this theory makes certain predictions that do not appear to hold for Basque. The second proposal examined in this chapter is by Arthur Holmer, who argues that Bittner and Hale's analysis fails to accurately account for the facts of Basque and presents a new proposal for case assignment in Basque that identifies absolutive with accusative case: structural case assigned to the complement of a verb under government.

2.2 Bittner and Hale

Bittner & Hale (1996) attempt to explain cross-linguistic facts about case marking and subject properties within a Government and Binding approach. The challenge is to identify a minimal number of parameters that explain the morphological realization of argument

roles while allowing for the fact that languages differ with respect to syntactic pivot, etc.

Bittner & Hale assume the following basic structure for sentences, which is standard for Government and Binding theory:

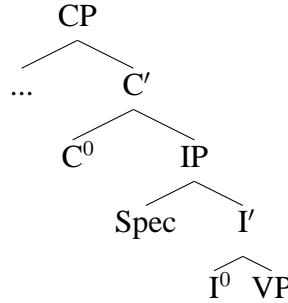


Figure 2.1: Standard structure of a sentence in Government and Binding theory. This tree assumes that heads are to the left of their complements, but trees in Basque are traditionally drawn head-finally.

The head of the sentence is I^0 , the locus of tense and agreement. The specifier of IP is the canonical subject position in many languages, including English. IP selects the predicate, typically a VP, and is in turn selected by C^0 —a functional head that hosts complementizers like ‘that’ or ‘whether,’ and thus determines sentence modality (e.g., statements versus questions).

Bittner & Hale crucially assume, again following the standard Government and Binding framework, that case is assigned under *government*:

- (9) **Government:** α governs β iff:
 - (i) α is a case-assigning head that c-commands β and
 - (ii) there is no barrier between α and β .
- (10) **Barrier:** A barrier between α and β is an XP, γ , with the X^0 head, γ^0 , such that:
 - (i) γ excludes α , includes β , and is not an extended projection of β ;
 - (ii) γ^0 c-commands β and neither α nor any adjunct of α binds γ^0 .

According to case-assignment by government, case is assigned to an argument by a class of heads, each associated with a particular case. As we will see later on, nominative

case is governed by C^0 , accusative by V^0 , and ergative by I^0 . Government is generally a local relation (hence the barrier condition), but part (ii) of the definition of barriers allows them to become transparent to government under the right conditions, which we will come across shortly.

Bittner & Hale posit a division between marked and unmarked structural case. Every language is considered to have an unmarked case, identified as nominative.¹ The unmarked structural case has the unique distinction of being assigned in a fixed position near the left edge of the sentence—most likely [spec,IP], though under special circumstances it can be assigned lower.

Bittner & Hale’s approach also posits that marked case is a functional head, the nominal counterpart of C^0 (and an extended projection of N^0). A fully projected NP thus takes the following form: Bittner and Hale “propose that a nominal in a marked Case (ac-

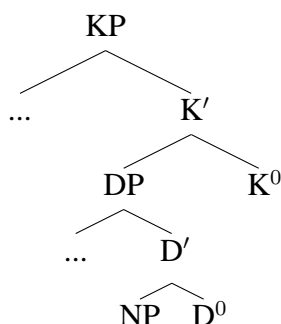


Figure 2.2: *Skeletal tree of a KP with DP complement (Bittner & Hale, 1996). KP is argued to be an Extended Projection of N^0 . Whether K^0 hosts a case morpheme or simply a feature that receives its phonological component at spell-out is an open question.*

cusative, ergative, or oblique) is a KP, while a nominal in the unmarked Case (nominative²) is K-less, a bare DP or NP.” (p. 9) But K-less nominals must still be licensed according to the *K Filter*:

¹This is so even when the case would normally be called ‘absolute’. In other words, Bittner & Hale redefine ‘nominative’ to mean unmarked structural case assigned under government from C^0 .

²N.B.: This is a technical use of the term ‘nominative’ that means simply unmarked structural case, which is absolute in Basque.

- (11) **K Filter:** K-less nominals must be licensed under government by K^0 or a K-equivalent³ like C^0 .

After defining the K Filter and marked versus unmarked case, Bittner & Hale present a table summarizing the key differences between the two (figure 2.2). A key feature of their analysis is that arguments may be licensed by either K^0 (of which there may be several in one clause) or C^0 , of which there will be one per clause. Now we will see how Bittner and

	Unmarked Case	Marked structural Case
K present?	no	yes
K at D-structure	—	empty
Licensing condition	K Filter	ECP

Figure 2.3: Summary of Case theory from Bittner & Hale (1996). In Basque, ‘unmarked Case’ is ABS, ‘marked structural Case’ is ERG or GEN.

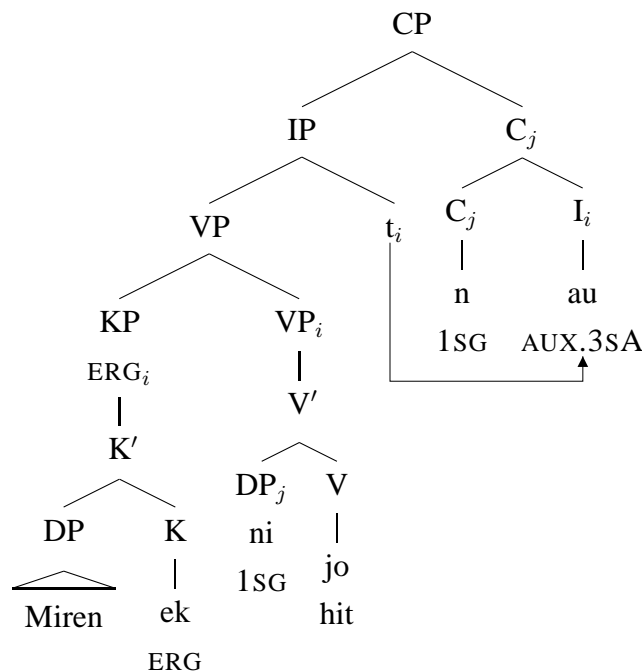
Hale’s approach accurately derives canonical sentences like (12) and the accompanying tree (13).

- (12) *Miren-ek ni jo n-au*
 Miren.ERG 1SG.ABS hit 1SA-have.3SA
 ‘Miren hit me.’

Here we see a straightforward transitive sentence with two way agreement and two arguments.

³This allows unmarked structural case in [spec,IP] under government from C^0 .

(13)



In tree (13), we can see that I^0 has raised to adjoin to C^0 (completing the auxiliary *nau*). This operation establishes what Bittner and Hale call a ‘transparency chain’ between C , t_i , and V —when I^0 and C^0 merge, IP is rendered transparent to government by C^0 , so that VP is no longer outside of the governing domain of C^0 . This allows C^0 to govern the complement of VP and license absolutive case on *ni* (this relationship is represented in the tree by the subscript j). Ergative case is assigned to *Mirenek* in $[spec, VP]$ under government from I^0 .

The fact that it is C^0 that licenses the absolutive argument (even in $[comp, VP]$) predicts that additional absolutive arguments *cannot* be licensed by additional VPs (which are headed by accusative case-assigning V^0 s), but only by additional CPs. The following sentences from Holmer (1999) falsify that prediction.

- (14) a. *Iñaki ardoa eda-te-ra joan da.*
 PN-ABS wine.ABS drink-NOM-ALL go AUX.3SA
 ‘Iñaki has gone to drink wine.’

- b. *Ni egunkaria irakur-tzen ari naiz.*
 1SG-ABS newspaper.ABS read-IPF PROG AUX.1SA
 ‘I am reading the newspaper.’
- c. *Peru etxea sal-tzen saiatu zen.*
 PN-ABS house.ABS sell-IPF try AUX.3SA
 ‘Peru tried to sell the house.’
- d. *Begoña euskara irakas-ten hasi zen.*
 PN-ABS Basque teach-IPF begin AUX.3SA
 ‘Begoña started teaching Basque.’

Each of the sentences in (14) shows an absolutive subject triggering agreement on an auxiliary or inflected verb as well as an absolutive direct object (which, strangely, triggers no agreement). In the following section, I will present an argument that absolutive arguments are not licensed by C^0 , nor do they appear to be licensed by a functional head associated with finiteness like I^0 or T^0 . As absolutive arguments seem to be licensed by V^0 , it could well be that absolutive case is not nominative at all, but accusative.

2.3 Holmer

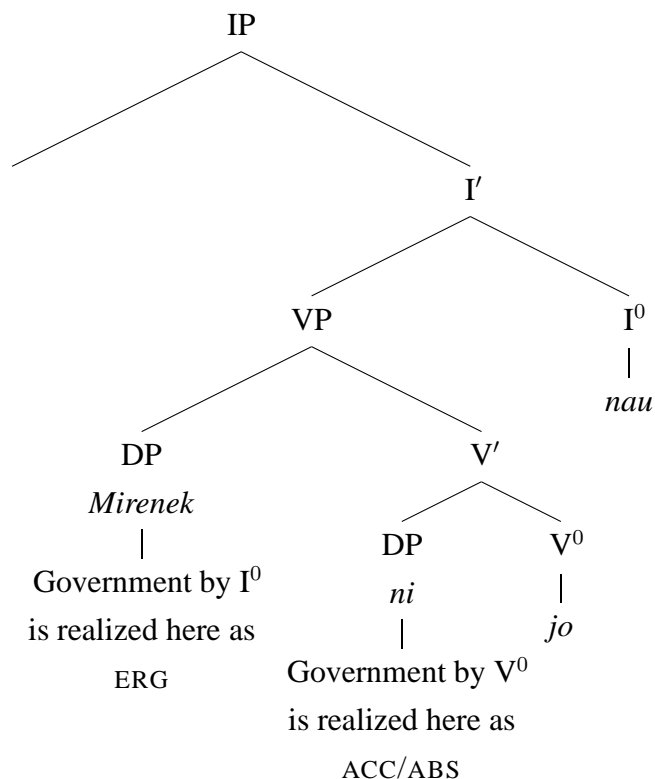
Still working within the Government and Binding program, Holmer advanced the thesis that Basque’s ABS is not ‘nominative’ in Bittner and Hale’s sense—that is, it is not assigned by C^0 . Holmer assumes that ABS is assigned under government from V^0 , essentially identifying it with accusative case. Although Holmer does not assume that nominals are licensed by case projections, he follows Bittner & Hale in positing that structural case is assigned by a small number of governing heads as shown in the following table.

Head	Case
I^0	Ergative Case
D^0	Ergative Case ⁴
V^0	Absolutive Case

Figure 2.4: Potential case assigners and the cases they govern (Holmer, 1999).

First, we should test that Holmer's approach makes essentially the same predictions for standard transitive sentences in Basque that Bittner & Hale's approach makes:

- (15) *Miren-ek ni jo n-au*
 Miren.ERG 1SG.ABS hit 1SG-have.3SG
 'Miren hit me.'

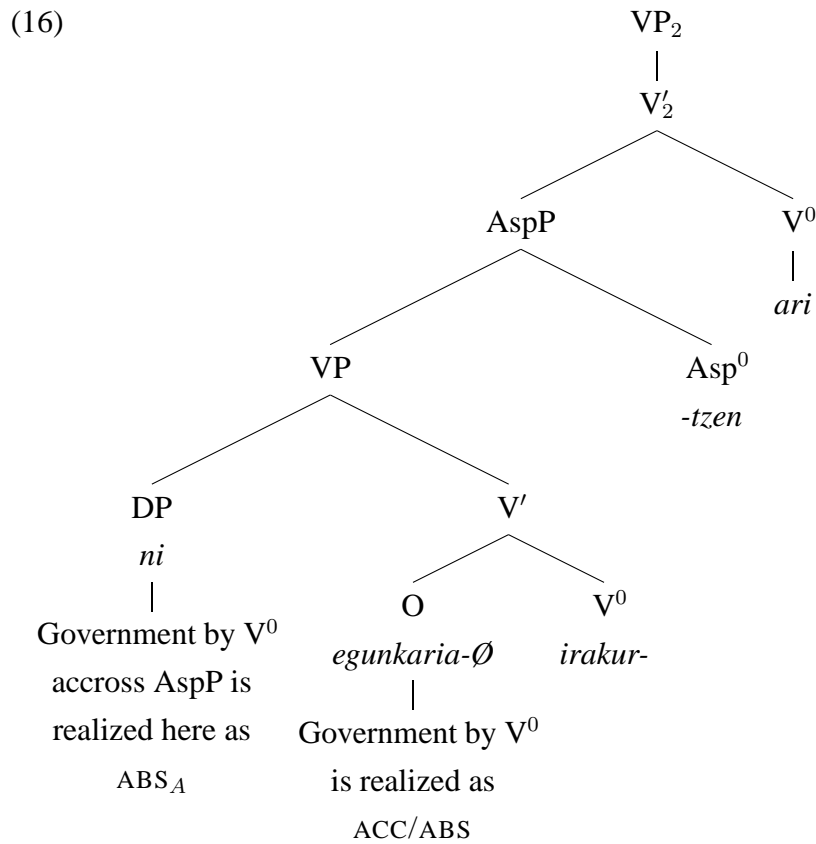


Allowing V^0 to assign absolutive case accommodates sentences like those in (14) quite well. Sentence (14b) was problematic under Bittner and Hale for two reasons: first, it contains what should be an unlicensed ABS argument (*egunkaria*, which does not trigger agreement or have an available governor) and secondly contains an A argument *ni* appearing with absolutive case and triggering absolutive agreement on the auxiliary.

- (14b) *Ni egunkaria irakur-tzen ari naiz.*
 1SG.ABS newspaper.ABS read-IPF PROG AUX.1SA
 'I am reading the newspaper.'

⁴ D^0 can only assign ERG to [spec,VP], the case assigned to [spec,NP] by D^0 is GEN.

Tree (16) shows how Holmer's approach accommodates these facts. Although *ni* would normally surface with ergative case under government by I^0 , the intervening V^0 *ari* instead assigns it absolutive case under complement government. In that one step, an ergative argument becomes a newly-licensed absolutive argument. Since Basque auxiliaries can only show absolutive agreement with one argument, only the highest absolutive DP (*ni*) triggers agreement.



Holmer assumes that the EPP is satisfied later in the derivation, with the highest absolutive argument raising to a suitable position to trigger agreement with I^0 , but does not specify the details.

2.4 Summary

In this chapter we have seen two attempts to derive case-marking phenomena in Basque: the first comes from Bittner & Hale (1996) and equates absolutive case with nominative. The second comes from Holmer (1999) and argues that absolutive case is accusative. Although Holmer (1999) seems to have better empirical coverage, in the following chapters I will argue that Bittner & Hale are right to identify absolutive as nominative. Furthermore, the one point on which both articles agree is that ergative case is structural case assigned to the external subject position by I^0 —a conclusion which I will contradict in Chapter 4.

Chapter 3

The Minimalist Program

3.1 Introduction

In this section I will outline the major features of Minimalism and the conceptual tools it provides for the analysis of language. I begin with the Minimalist conception of C_{HL} —the ‘computational system of human language.’ The remainder of this chapter looks at two Minimalist approaches to structural case, each based on a different version of the Agree relation that replaces Government. Ultimately, I adopt a feature-sharing version of Agree (Pesetsky & Torrego, 2004) and argue that structural case is uninterpretable Tense on D^0 .

3.2 The Structure of Human Language

A description of the human faculty of language requires, at minimum, four parts:

1. An inventory of lexical items (the lexicon).
2. Rules for combining the above into larger structures (syntactic processes).
3. An interpretive module that interfaces between meaning and syntax (Logical Form).
4. An interface to the phonology that assigns a pronunciation and a linear order to the syntactic structures (Phonological Form).

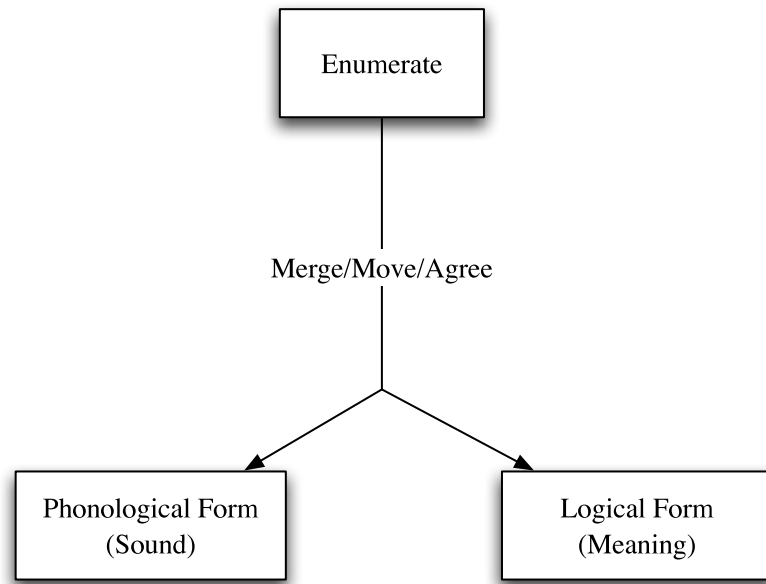
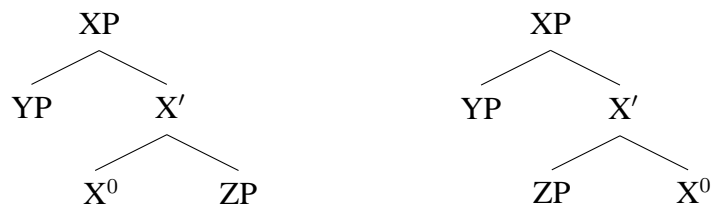


Figure 3.1: *Diagram of the Computational system of Human Language (C_{HL}).*

These parts are depicted in figure 3.1. Enumerate produces an array of lexical items¹ which are then combined into meaningful structures by syntactic operations like Merge, Move, and Agree.

Merge is the operation that replaces the X' module of X'-Theory and Government and Binding. The X' module essentially worked as a template with one of the following two forms:



¹This is the stance adopted for the sake of convenience in this thesis. Actually, there are good reasons to doubt that Enumerate produces *lexical items*—see Marantz (1997) for an excellent argument against ‘lexicalism’ in favor of Distributed Morphology, which posits instead that only syntactic features are produced by Enumerate, with lexical items inserted into the structure late in the derivation. The question of lexicalism versus Distributed Morphology is one of several interesting issues with only peripheral relevance to this thesis, so I have decided to choose the alternative that is simpler to explain. The assumption of lexicalism here should be seen as metaphorical, rather than as an empirical claim about the structure of C_{HL}.

Where the left is preferred for languages like English and German and the right is preferred for languages like Japanese and Basque. In Minimalism, trees are no longer built using an X' template, but the operation Merge which takes two syntactic objects as its input and combines the two as a higher projection of one of those arguments. An XP like the one on the left above could be built by merging X^0 with its complement, ZP, (itself having been merged earlier in the derivation) with X^0 projecting X' . Then X' merges with its specifier, YP, and projects XP.

Thus trees are built step-by-step, with Merge and Move occurring freely during the derivation, rather than at distinct points called ‘deep structure’ and ‘surface structure’ as in earlier points in the theory. Instead, the structure is passed off to LF and PF at some point in the derivation (exactly when is a matter of some debate, and not particularly relevant), where the structure receives a phonological and semantic interpretation. Phonology is no real concern in this thesis, so I will simply focus on LF.

The most important role played by LF as an explanatory element in our theory is that it enforces the requirement that sentences be *interpretable*. In the following section on Agree, we will see that we can get quite a bit of empirical coverage out of this requirement if we posit the right kinds of features and the right mechanism for manipulating them.

3.3 Features and Case

Under traditional Minimalist syntax, case assignment is a result of a syntactic operation called **Agree**, rather than Government. In this section I will outline two Agree-based approaches to case assignment, and adopt a new (and controversial) theory that (1) revises the standard Agree relation and (2) explains structural case as an epiphenomenon of tense.

3.3.1 Feature Copying

When heads are enumerated from the lexicon, they are given features (such as [TENSE] or [PERSON]) that are either *valued* or *unvalued*. An English verb, for example, will be enumerated with a valued T(ense) feature, while an auxiliary will have an unvalued T feature. The unvalued T feature (hereafter *uT*) acts as a *probe* as described in (17):

- (17) **Agree (Assignment version; following Chomsky (2000, 2001))**
- (i) An unvalued feature F (a *probe*) on a head H scans its c-command domain for another instance of F (a *goal*) with which to agree.
 - (ii) If the goal has a value, its value is assigned as the value of the probe.

Under Chomsky's theory, case is determined by a separate [CASE] feature on nominals that gets valued as a consequence of φ -feature checking:

- (18) **Nominative Case Assignment:** An unvalued case feature on a goal is valued as nominative by a probe carrying finite tense if probe and goal match in φ -features (i.e., in person and number).

This has some advantages over the version of case-assignment assumed in Government and Binding. First, it explains both case and agreement in a way that reflects the fact that the two seem to be linked. Finite T is very likely cross-linguistically to co-occur with both nominative case and φ -feature agreement, and in many cases one will not occur without the other. Secondly, stipulating that [CASE] is an uninterpretable feature allows us to eliminate the case-filter and allow the requirement that nominals receive case to be enforced by the Full Interpretation principle:

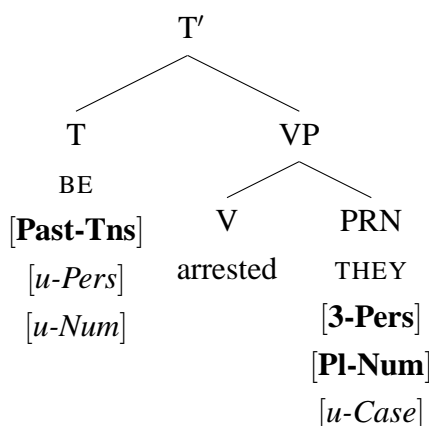
- (19) **Full Interpretation Principle:** Uninterpretable features must delete before LF.

Because case has no semantic content, a [CASE] feature must be deleted in order for the derivation to converge, and there is no reason to propose a separate filter to enforce this requirement. Case-assignment under feature-checking also does not require a notion of government. The effect that case is assigned by the nearest c-commanding governing head can instead be explained by the fact that the closest c-commanding head will be the first to Agree with a nominal, and once the [CASE] feature is checked, its host is no longer a valid goal for probes that are higher up. The primary role of government is to assign case, and since it is no longer necessary we may safely discard it.

Now that we have outlined this approach and explained its advantages, we will illustrate how it works. By way of example, we will go through the derivation of a simple sentence: ‘They were arrested.’²

1. **Enumerate:** BE+[**Past-Tns**][*u-Pers*][*u-Num*], arrested, THEY+[**3-Pers**][**Pl-Num**][*u-Case*].³

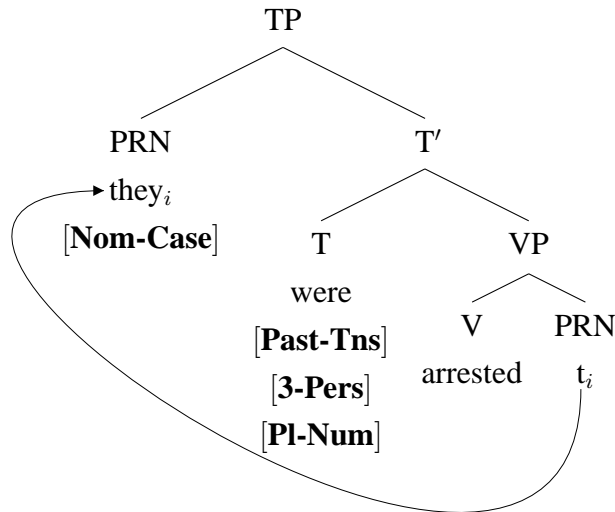
2. **Merge:**



3. BE probes its c-command domain for valued instances of [Pers] and [Num] and finds THEY. They 3rd person plural features from THEY are copied onto BE and deleted.
4. As a consequence of checking its ϕ -features, [*u-Case*] on THEY is valued as nominative and the [EPP] feature on T causes THEY to raise to the specifier of TP, yielding the following structure:

²This is adapted from Radford (2004) p. 285-286.

³Lexical items in SMALL CAPS are citation forms that may be spelled out differently depending on what features they acquire during the derivation. *Italicized* features are unvalued, **boldface** features are valued.



3.3.2 Feature Sharing

The approach outlined in §3.3.1 is surely an improvement over Government and Binding, but Pesetsky & Torrego (2004) refine it further. One of the chief advantages of a valuation-based account of case is that it allows case to be reduced to just one of many different features. Pesetsky and Torrego's version of Agree, outlined in this section, will ultimately allow us to eliminate [CASE] features altogether and replace them with uninterpretable *instances* of other kinds of features.

First, Pesetsky and Torrego assume that there are 4 kinds of features that can be enumerated from the lexicon:

uF	Uninterpretable, unvalued	iF	Interpretable, unvalued
$iF\ val$	Interpretable, valued	$uF\ val$	Uninterpretable, valued

The combinations on the right-hand side of the table are disallowed under Chomsky's theory: his interpretability biconditional states that valuation and interpretability are truth-conditionally equivalent. That a feature may be uninterpretable yet valued is vital for Pesetsky & Torrego, for reasons that we will see later. For now, we will examine the updated version of Agree that they propose.

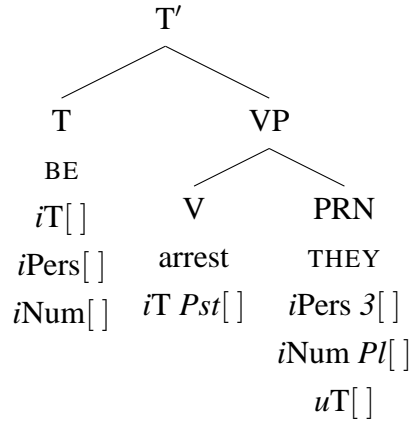
(20) **Agree (feature sharing version)**

- (i) An unvalued feature F (a *probe*) on a head H at syntactic location α (F_α) scans its c-command domain for another instance of F (a *goal*) at location β (F_β) with which to agree.
- (ii) Replace (F_α) with F_β , so that the same feature is present in both locations.

Under this theory, features that enter into Agree form a *chain* of instances, all sharing the same value. Some new notation will be necessary to reflect this. A set of brackets following the feature name will enclose a numerical identifier that is shared by all the features in a particular chain. For example, uF [1], iF *val* [1], and uF [1] will all have a value of *val*, even though this feature is uninterpretable at two of these locations. With these new considerations, let us derive again the sentence ‘they were arrested.’

1. **Enumerate:** BE+[iT][$iPers$][$iNum$], arrest+[iT Pst], THEY+[$iPers$ 3][$iNum$ Pl][uT].⁴

2. **Merge:**

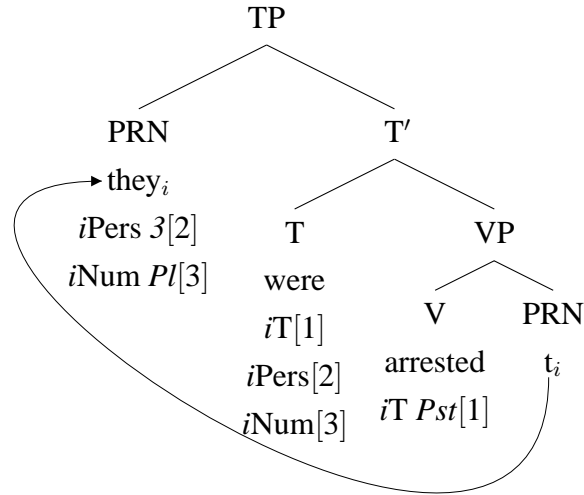


3. BE probes its c-command domain for valued instances of T and finds ‘arrest.’ A feature-sharing link is established between the two and *Pst* is valued at both locations.

4. BE probes again for valued instances of [*Pers*] and [*Num*] and finds THEY. Another link is established for these features and they are valued as 3pl at both locations.

⁴Note the lack of a [CASE] feature on THEY and the presence instead of uT .

Additionally, uT on THEY becomes a part of the same chain as T^0 and V^0 , and THEY inherits an uninterpretable past-tense feature (to be spelled out as nominative case).



3.3.3 Tense and Case

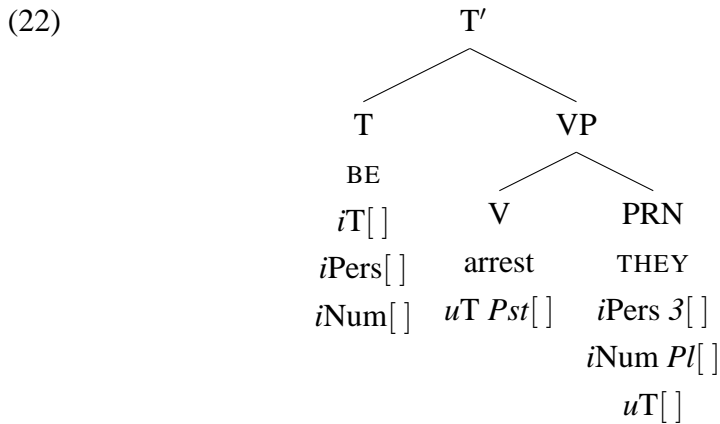
The elimination of case as a *sui generis* feature on DP allows us to eliminate a feature with no semantic content⁵ and replacing [CASE] with a [TENSE] feature gives us a straightforward way of capturing the apparent relation between structural case and finite tense. Recall that under Pesetsky and Torrego's proposal, 'nominative case' is simply the result of Spell-out on a DP with a valued uT feature, e.g. uT *Past* or uT *Present*. Although English displays morphological syncretism between uT *Present* and uT *Past*, the theory predicts the existence of languages in which this is not the case. In fact, this might explain tense/aspect based split-ergativity of the type seen in Hindi:

- (21) a. *ram gari cala-ta he*
 Ram.M.SG.NOM car.M.SG.NOM drive-IPF.M.SG be.PRES.3S
 'Ram drives a car.' Butt (2006) p.175
- b. *ram=ne gari cala-yi he*
 Ram.M.SG=ERG car.M.SG.NOM drive-PF.M.F.SG be.PRES.3S
 'Ram has driven a/the car.' (ibid.)

⁵I take it to be self-evident that uninterpretable features and functional projections are a necessary evil in a theory of syntax, and one that should be curbed wherever possible.

The fact that ‘Ram’ is spelled-out with nominative case in the imperfective but ergative case in the perfective can be explained by the presence of different values for $u\text{Asp}$: *Perfective* on DP is spelled-out as nominative case, while *Imperfective* on DP is spelled out as ergative case. Because case in Hindi demonstrates a dependence on aspect rather than tense, we should accept as a matter of cross-linguistic variation that case can be associated with uT , $u\text{Asp}$, $u\text{Mood}$, etc., or perhaps some combination of these. Indeed, this is what we would expect from a theory that has essentially eliminated case as a distinct feature. The fact that case-licensing conditions appear to be present in every language, however, is a curiosity that warrants explanation—explanation that I will not offer here.

Although this theory is adept at explaining structural case on arguments that are taken to have a special relation to INFL, generally nominative (and perhaps ergative), it is far from clear how to extend this theory to account for a second structural case, such as accusative. Pesetsky & Torrego (2004) does not attempt to explain accusative case at all, and carrying their ideas to their logical conclusion appears to make accusative case *impossible*. Consider again the partial tree for ‘they were arrested’:



Although THEY starts out in the complement of VP, it nonetheless receives ‘nominative case’ (in the form of $uT\ Past$) simply by virtue of being the first DP encountered by T^0 . Presumably, if it were an external argument in $[\text{spec}, \text{vP}]$ then it would receive the same treatment. That is a strength of this theory, as it takes us closer to explaining why Burzio’s generalization holds in English:

- (23) **Burzio's Generalization:** Accusative case can only be assigned if nominative case is assigned.

Assuming that the probe from T^0 always locates a DP, resulting in the valuation of uT on *that* DP, there will always be one DP with nominative case—even if that DP is in a position like [comp, VP] that is generally associated with accusative case. So far so good, but we still do not know where accusative case comes from in transitive clauses. Pesetsky and Torrego stipulate that *any* value for uT on DP is spelled-out as nominative, but if uT does not get valued then the derivation will crash at LF. Thus we have a paradox. It appears that we have nominative case or no case at all.⁶

One possibility might be to simply allow that uT be allowed to remain unvalued, and that unvalued uT should be spelled out as accusative. After all, if T is truly uninterpretable *anyway*, then maybe it would not be so bad to leave it unvalued. Even if this were unproblematic by itself, it does not seem to be possible in the theory as-is. The verbal head has its own uT feature that will immediately probe its c-command domain and establish a feature-sharing link with the direct object. Since Pesetsky and Torrego take tense to originate on the verb, this will result in uT becoming valued on the direct object (with consequent nominative case) early on in the derivation.

Therefore it is necessary to make significant revisions to Pesetsky and Torrego's theory of case assignment in order to account for the facts about case in English. Basque, however does not have accusative case (*pace* Holmer, who identifies ABS with accusative case), so this will not turn out to be a significant problem for the purposes of this thesis.

3.4 Summary

In this chapter I have outlined a description of Universal Grammar that is significantly different from that assumed in chapter 2. I have introduced the operations Merge and Agree, which will form an important part of the analysis to come in the next chapter. Perhaps most importantly, I have made the claim that 'nominative case' is not only linked to tense,

⁶"We do not have a theory of morphology to justify differences in the spelling out of nominative and accusative case." Esther Torrego (p.c., March 28, 2007)

but actually *is* an uninterpretable [TENSE] feature on D^0 . This is the most important step towards the elimination of a formal [CASE] feature, which is taken up in the following chapter and the conclusion.

Chapter 4

Analysis

4.1 Introduction

The proposed explanations for case marking in Basque have all crucially assumed that ergative case is structural—that is, case assigned via Agree with some functional category. In this chapter, however, I will argue that absolutive is the only structural case in Basque and is properly identified as nominative, while ergative case is *inherent* (following Woolford (2006); Legate (2006)) and assigned ‘once and for all’ in the specifier of vP. The argumentation will rely on the diagnostic criteria provided in Woolford (2006) for distinguishing inherent from structural case, as well as the necessity of explaining the observation that raising constructions seem to result in double case-assignment, something that is disallowed under standard Minimalist assumptions but possible within the particular framework adopted in this thesis.

A serious obstacle for this proposal is the *ari* construction examined in §2.3. Holmer (1999) argues that *ari* is an ECM verb that assigns exceptional absolutive case to the external argument of a lower clause. If ergative case is assigned once and for all to [spec,vP], then ECM constructions should not exist. In §4.3.5 I will argue that Holmer’s analysis of *ari* constructions is mistaken, and that there is nothing particularly exceptional about *ari*—it is simply an intransitive verb that selects an oblique complement denoting an activity.

Finally, I will show that the conventional account of inherent case assignment is in

need of revision and set forth parameters for a more coherent account.

4.2 Absolute is Nominative

According to Bittner & Hale (1996) (see §2.2), nominative case is unmarked structural case assigned by C^0 either directly to [spec,IP] or via transparency chain to [comp,VP]. This definition allows them to identify Basque's absolutive case as 'nominative,' even though it does not show the patterning together of S/A. Holmer's objection to this claim will be addressed extensively in §4.3.5, and we have good reason to adopt a similar position. The framework of Pesetsky & Torrego (2004) adopted in this thesis forces us to identify at least (and perhaps at most, though this is not their intention) one structural case as 'nominative,' but not on the basis of government by C^0 . 'Nominative case' is simply the valuation of an uninterpretable Tense feature on D^0 . Consider the following:

1. Every D^0 is enumerated with uT , which it must share with iT on T^0 in order to satisfy full interpretability.
2. We know that T^0 always enters into Agree with (at least) the absolutive argument because it obligatorily shows morphological agreement with its φ -features.

Absolutive arguments and ergative arguments both must be valued for uT , and must therefore both receive 'nominative case.' This forces us to the odd conclusion that nominative and ergative case are somehow not exclusive of one another—a conclusion that will be supported in the following section. For now, the most important point to remember is that we are justified in identifying absolutive with nominative, and may henceforth use the terms interchangeably as they relate to Basque.

4.3 Inherent Case Diagnostics

Woolford (2006) provides the following diagnostic criteria for determining whether a particular case is inherent. Inherent cases typically:

1. show some degree of correlation with particular θ -roles.
2. appear as non-nominative subjects of tensed clauses.
3. co-occur with nominative objects.
4. are preserved under A-movement.

By applying these criteria to ERG in Basque, we will see that it is almost certainly inherent case assigned to [spec,vP] under Merge.

4.3.1 ϑ -Relatedness

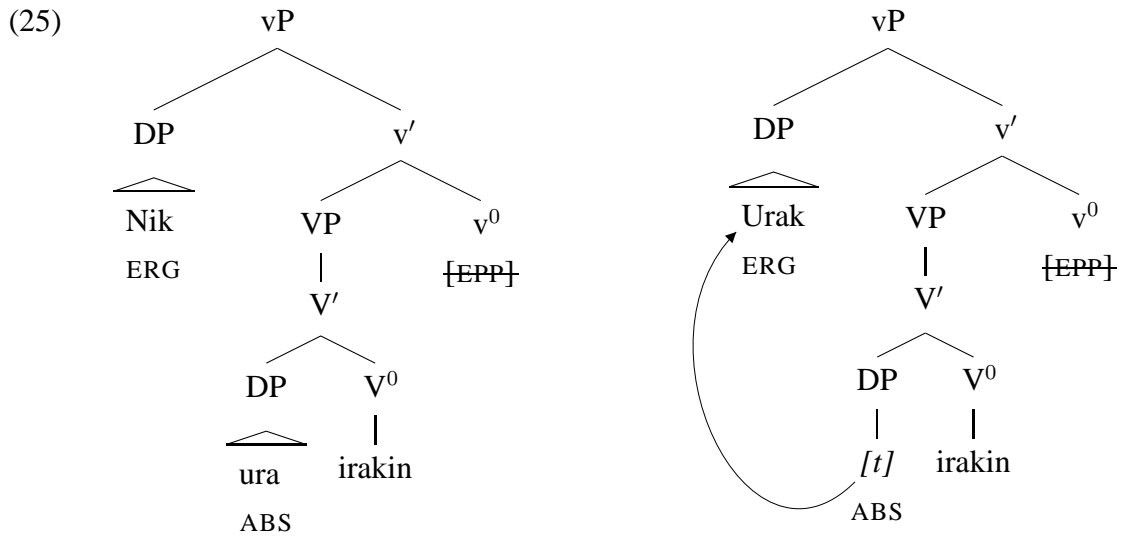
One of the key features of non-structural case (including inherent and lexical case) is that it is correlated with certain ϑ -roles. Inherent dative case, for example, is associated with goals, recipients, and benefactees, while inherent genitive case is associated with sources and possessors. Likewise, ergative case is typically associated with agents and causers (see p. 2). This generalization holds fairly well for Basque, but there are a few exceptions. First are the unergative verbs mentioned on p. 5 like ‘boil’ and ‘shine,’ which can assign a theme ϑ -role to an ergative argument when used intransitively:

- (24) a. *Nik ura irakin dut.*
 1SG.ERG water.ERG boil AUX.3SA/1SE
 ‘I boiled the water.’
- b. *Urak irakin du.*
 water.ERG boil AUX.3SA/3SE
 ‘The water has boiled.’

Sentence (24a) makes *irakin* ‘boil’ out to be a standard transitive verb—it assigns an agent ϑ -role to an ergative argument (as we would expect) and a theme ϑ -role to an absolutive argument. But *irakin* is a member of a small class of verbs that can be used intransitively despite having many of the morphosyntactic properties of transitive verbs. Sentence (24b) demonstrates such a usage. *Urak* ‘water’ is still ϑ -marked as the theme of *irakin*, but it receives ergative case morphology and triggers ergative agreement on the

auxiliary. No absolutive argument can appear if the theme receives ergative case, and absolutive agreement on the auxiliary is default 3rd person singular, regardless of the φ -features on the theme.

It seems straightforward enough to posit that certain verbs, including *irakin*, obligatorily project a vP, and that the [EPP] feature on v^0 causes the theme to raise to [spec,vP] if there is no A argument available to merge in that position. Thus we have the following structures for sentences (24a-24b):



In both of these trees, the theme gets ϑ -marked at first merge with V^0 . They part ways when v^0 merges with VP and tries to check its [EPP]-feature. Checking this feature can be accomplished with either Merge (introducing a genuine A argument) or Move, which attracts the closest DP (the one in [comp,VP]) and raises it to [spec,vP] where it receives ergative case. When a theme is assigned ergative case, it is necessary to exclude an additional argument from being licensed in VP, or this argument would have to be ϑ -marked as an agent:

- (26) *Nik ura irakin dut.*
 1sg.ERG water.ABS boil AUX.3SA/1SE
 ‘*Water boiled me.’ (cf. 24a)

Movement from [comp,VP] to [spec,vP] excludes sentences like (26) because the trace left in [comp,VP] precludes the occurrence of another ϑ -marked argument in that posi-

tion. This still leaves the problem of a disappearing agent ϑ -role and the possibility of a ϑ -criterion violation. Chomsky (1995) argues, however, that the ϑ -criterion is an epiphenomenon of the requirement that arguments be assigned a coherent interpretation at LF (pp. 186-188). Therefore it may not be a problem to have more ϑ -roles than arguments, as long as there are enough ϑ -roles for the arguments that *are* present.

At any rate, the fact that themes can surface with ergative case is a valid counterexample to ϑ -relatedness, but a relatively minor one. Hualde & Ortiz de Urbina (2003) lists only about 20 such verbs, most of which are unlike *irakin* in that the ϑ -roles that they obligatorily assign are relatively more agentive—*dantzatu* ‘dance,’ for example, or *hitz egin* ‘say,’ behave syntactically very much like *irakin* but they actually *support* ϑ -relatedness. Like *irakin*, *dantzatu* is a transitive verb that assigns theme and agent ϑ -roles, but when there is no absolutive argument present, *dantzatu* assigns its *agent* ϑ -role to the ergative argument, rather than the theme ϑ -role. Since ergative agents are what we expect if there is any degree of ϑ -relatedness to ergative case, verbs like *dantzatu* counterbalance the few verbs like *irakin*. Given this, and the fact that unergatives form a small, closed, lexically determined class of verbs, we should accept that there is indeed a high correlation between ϑ -marking and ergative case.

4.3.2 Non-Nominative Subjects of Tensed Clauses

This test is the simple and straightforward. It relies on the well-established claim that the **structural** case assigned to subjects of tensed clauses is identified with nominative (one of the justifications used earlier to identify absolutive with nominative). Thus, if the subject of a tensed clause is *not* nominative, then the case that appears instead must be inherent. ERG is by far the most common non-nominative subject case in Basque (although experiencer subjects often appear in the dative case). Whether defined in terms of semantic-syntactic primitives (i.e., S/A argument) or pivot, a subject will nearly always either be ABS (nominative) or ERG. This is readily observed in even the most basic Basque sentences:

- (27) *Azeriak oiloa jaten du.*
 fox.ERG chicken.ABS eat.IPF AUX.3SA/3SE
 ‘The fox eats the chicken.’

4.3.3 Allowing Nominative Objects

Except within certain nominalizations¹, objects (direct objects and O arguments in general) always appear in nominative(=absolutive) case, whether the subject is dative or ergative:

- (28) *Niri zure oinetakoak gustatzen zaizkit.*
 1S.DAT your shoes.ABS like.IPF AUX.3PA/3SD
 ‘I like your shoes.’

This is one of the hallmarks of ergative languages, and a key motivation for the claim that ergative case is always inherent (Woolford, 2006; Legate, 2006).

4.3.4 Case Preservation under A-Movement

So far, ERG has passed its tests for inherency with flying colors. When considering A-movement, however, things get more complicated. First, it is generally true that ERG is preserved under A-movement (movement from a ϑ -position to a case position), a straightforward adaptation of the *ari* construction examined earlier to our current framework will require A-movement with the loss of ergative case morphology. The following section will re-examine *ari* in the light of new data in order to argue that it does not provide a counterexample to ergative case preservation. Once that is shown, it will have been demonstrated that ERG is, in fact, inherent case assigned to the specifier of vP.

If ERG is inherent and ABS is structural, then we should expect to see some raising constructions in which an S/O argument raises to [spec,vP] of a higher clause and picks up ergative morphology, but no constructions in which an argument is base-generated in [spec,vP] and picks up absolutive morphology in a higher case position.

Basque has a number of transitive raising verbs that provide a higher [spec,vP] landing site for arguments that are base-generated lower in the clause. In these constructions, we

¹ As mentioned in §4.3.5, objects of nominalized verbs may occur in genitive case.

should see intransitive subjects raising to the specifier of the higher vP and getting ergative case, as the following examples demonstrate.

- (29) a. *Jon haserre dago.*
 John.ABS angry AUX.*egon*/3SA
 ‘John is angry.’
- b. *Iduri du Jon haserre dagoela.*
 seem AUX.3SA/3SE John angry AUX.*egon*/3SA.*that*
 ‘It seems that John is angry.’
- c. *Jonek iduri du haserre dagoela.*
 John-ERG seem AUX.3SA/3SE angry AUX.*egon*/3SA.*that*
 ‘John seems to be angry (lit. John seems that he is angry).’
- d. **Jonek iduri du Peru haserre dagoela.*
 John-ERG seem AUX.3SA/3SE Peru angry AUX.*egon*/3SA.*that*
 ‘John seems that Peru is angry.’²

Sentence (29a) shows the canonical pattern for adjective predication. The subject is absolutive-marked, the adjective appears without any additional overt morphology, and the auxiliary *egon* (‘to be’, analogous to the Spanish *estar*) is selected. In (29b), the raising verb *iduri* ‘to seem’ is selecting the sentence from (29a), triggering complementizing morphology on *dago*, while the main auxiliary *du* shows agreement with a covert ergative argument (analogous to ‘it’ in the translation). Finally, and most crucially, we see genuine A-movement to a higher ergative case-position in sentence (29c): *Jon*, an underlying S argument (the subject of the adjectival predicate *haserre dago*), raises to the specifier of the vP projected by *iduri* and receives ergative case-marking.

We have the following for justification that *iduri* is a genuine raising predicate:

- (i) Comparison between (29a) and (29b) shows the introduction of a new, higher position in the sentence that is associated with ergative case. In (29b) this position is occupied by an expletive that triggers 3rd person ergative agreement on the auxiliary of the main clause.

²Clearly, this sentence is also ungrammatical in English. If it were grammatical, though, it might mean something like ‘it seems from John’s appearance that Peru is angry.’ Perhaps John is covered in bruises and his roommate Peru has a known history of violence.

- (ii) Comparison between (29b) and (29c) shows this higher (Case) position occupied by an argument that seems likely to have originated in the subordinate clause (in a ϑ -position). If *Jon* is, in fact, moving from ϑ -position to case-position, then this would be an example of A-movement.
- (iii) This suspicion is confirmed by an examination of (29d), in which the lower ϑ -position is occupied by an overt argument. The ungrammaticality of this sentence is readily explained by the hypothesis that *iduri* is a raising verb: if it is, then its external argument position is a ϑ -bar one, and only previously ϑ -marked arguments can raise into that position (expletives, as in sentence (29b) do not require ϑ -roles and may thus freely occur there). *Jonek* is ϑ -marked by *haserre* in (29a—29c), but *Peru* deprives it of its ϑ -role in (29d).

It is thus firmly established that Basque has A-movement, and that absolutive case can be overridden by ergative case under A-movement. There is something remarkable about this particular example of A-movement, however. Recall that A-movement is movement of an argument from ϑ -position to case position. In the English ‘seems’ construction, this argument is base-generated within a nonfinite clause where it is unable to receive case, and thus we conclude that movement to [spec,IP] of the higher clause is motivated by case. In *iduri* constructions, however, this lower ϑ -position is *also a case position*, as sentence (29b) demonstrates. This A-movement thus has every appearance of being genuinely optional. Compare this to related English constructions:

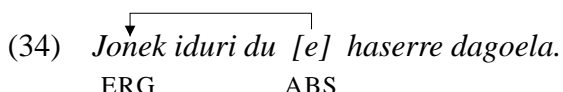
- (30) a. John seems to be angry. (raising)
b. *It seems John to be angry. (not raising)
- (31) a. John seems angry. (raising)
b. *It seems John angry. (not raising)
- (32) a. *John seems (that) is angry. (raising)
b. It seems (that) John is angry. (not raising)

Here we see that raising in English ‘seems’ is always either mandatory or disallowed. This is a necessary corollary of standard Minimalist assumptions:

(33) **A-movement (standard³ MP version):**

1. A functional head (e.g., T^0) has an uninterpretable [CASE] feature that serves as a probe, searching its c-command domain for the closest unvalued [CASE] feature.
2. D^0 has an unvalued [CASE] feature.
3. The probe and goal enter into an Agree relation, with the result that [CASE] on D^0 gets valued and DP raises to the specifier of the functional head.

If the [CASE] feature on D^0 has already been valued then it will not be able to serve as a goal for an A-movement probe, hence movement will not be motivated and economy will disallow it. In other words, movement from case-position to case-position is disallowed. But sentence (29c), reproduced here as (34), demonstrates precisely this kind of A-movement:

- (34)  *Jonek iduri du [e] haserre dagoela.*
 ERG ABS

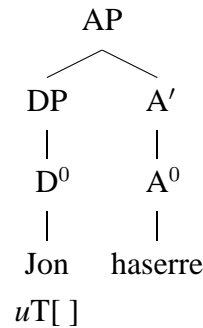
We are forced to conclude that *Jon* is receiving case *twice* in this sentence. We have seen why this is impossible under standard Minimalist assumptions, but there is a way out of the mire. In §3.3.3, I argued (following Pesetsky & Torrego (2004)) that structural case is actually an uninterpretable instance of a T(ense)-feature on D^0 , rather than a [CASE]-feature. If this is so, then we can explain paradoxical A-movement by appealing to a fundamental asymmetry between inherent and structural case—namely that only the former is case and the latter is tense. Thus assigning structural case *and* inherent case ought to be allowed. Once inherent and structural case have both been assigned, further A-movement will be disallowed.

Now we can successfully derive the Basque raising construction as follows⁴:

³As of this writing, the majority of work in Minimalism assumes probe-goal Agree and [CASE] features. The use of the word ‘standard’ here means nothing more than that.

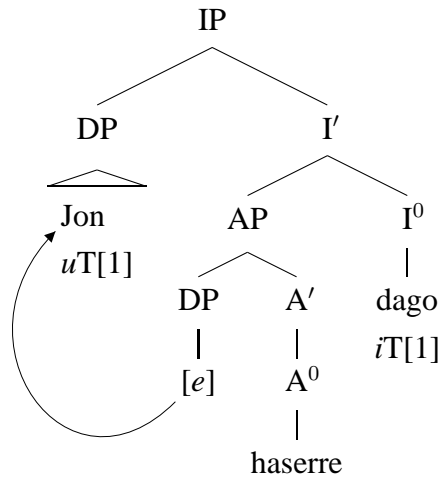
⁴This derivation is simplified somewhat. First of all, I have largely left out φ -features as their effect on the derivation is neither clear nor especially relevant. I have also adopted the standard right-headed phrase structure for Basque, as is convention in the literature. This is a concession I have made in order to simplify the argumentation (and especially the trees), but it should not be taken as a ratification of X'-Theory or

1. **Enumerate** gives us the basic elements, optionally including an expletive *pro*.
2. The first predicate (an AP in this example) is merged with an internal subject hosting an uninterpretable and unvalued T-feature:

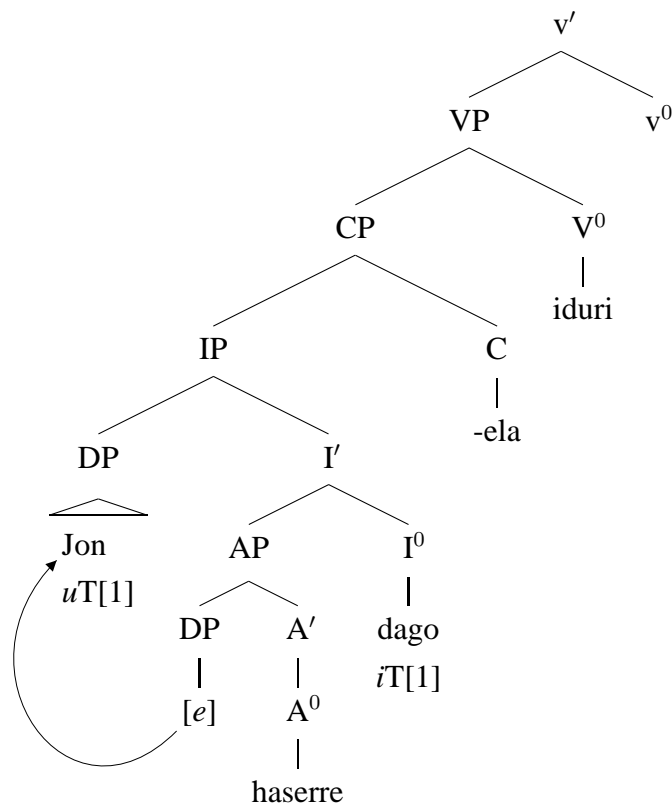


3. This AP merges with I^0 (EGON). I^0 has a valued and interpretable T-feature, but unvalued and uninterpretable φ -features (not shown). I^0 scans its c-command domain for a suitable goal, finds the DP *Jon*, and agrees with it. This causes *Jon* to raise to [spec,IP] and allows EGON to be spelled-out with the correct agreement morphology (*dago*). This operation is the assignment of absolutive case.

a directionality parameter. Not only does the current definition of Merge make an X' module obsolete (see p. 21), but Kayne (1994) has argued cogently that all XPs must have Specifier-Head-Complement ordering. Thus the apparent Specifier-Complement-Head ordering of Basque must be the result of extensive and regular movement. This necessitates setting aside Bare Phrase Structure (Chomsky, 1995), as well, in order to preserve Specifier-Complement distinctions. Finally, I have chosen to gloss over potential effects of the Phase Impenetrability Condition (Chomsky, 2001) for two reasons: (1) Direct appeal to the PIC is not necessary to explain the phenomena under question and (2) The massive amounts of movement necessary to derive Specifier-Complement-Head ordering at PF would almost certainly place constituents at the left-boundaries of phases where they would not otherwise be supposed to appear, thus making the application of the PIC non-trivial.

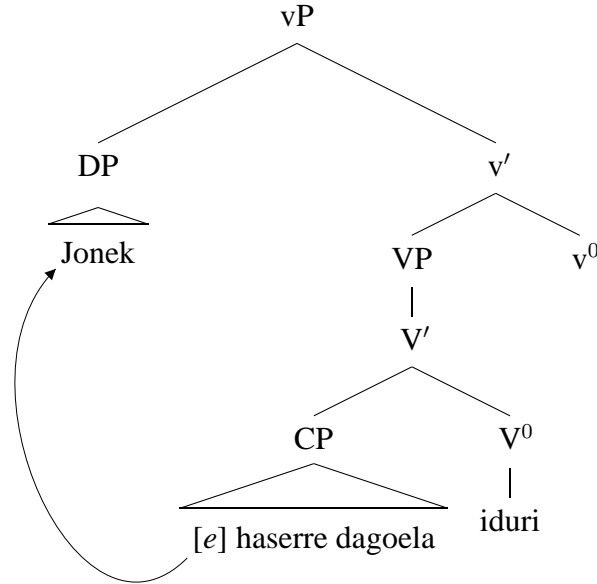


4. The lower clause is merged into a CP selected by *iduri*, which projects VP, and a light verb v^0 :



5. Transitive v^0 must have a DP in its specifier to satisfy its [EPP] feature. If *pro* is

in the enumeration then it will be merged here, otherwise *Jon* will raise and merge with v^0 to form vP (this is the A-movement operation):



6. *Jonek* receives ergative case morphology by virtue of the fact that it is in [spec,vP]. If *pro* had merged in [spec,vP], then *Jon* would not have been required to move and it would have been spelled out with absolutive case, as in sentence (29b).

There is still, however, the question of *how* v^0 assigns ergative case. Under the Minimalist assumptions rejected earlier, v^0 hosts an [Erg-Case] feature that values [CASE] on DP *on first merge* along with ϑ -marking. This is unsatisfactory for two reasons:

1. We cannot posit a [CASE] feature on DP without valuing it as ABS within the CP and making subsequent ergative case marking impossible.
2. Ergative case, as we have seen, is not necessarily assigned under first merge *or* ϑ -marking.

These issues will be addressed in the next section. First, we must examine a possible counterexample to case preservation under A-movement: the *ari* construction.

4.3.5 The *ari* Construction Revisited

If ergative case is indeed inherent and not mutually exclusive with absolutive case, then we should see ergative case overriding absolutive case (as in the raising construction above), but never absolutive case overriding ergative. Since ergative case is assigned in [spec,vP], we can formulate the prediction as follows:

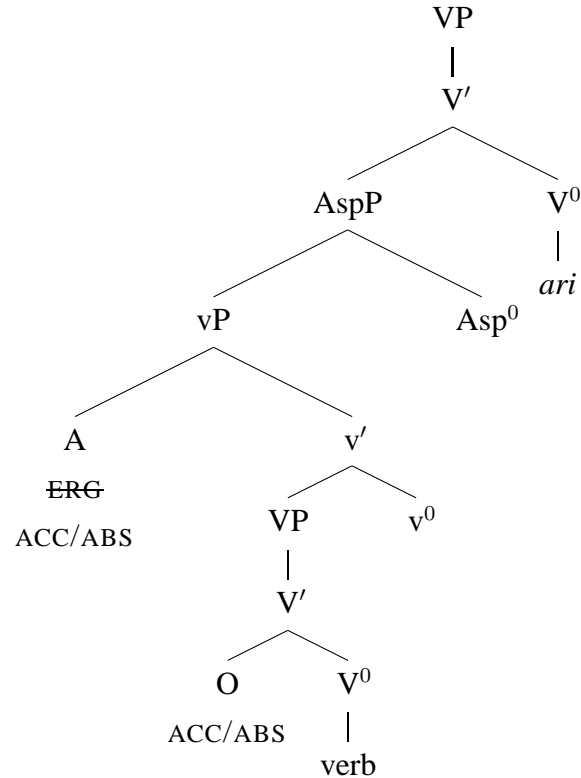
- (35) **Prediction:** There is no syntactic process that can deprive a DP merged into [spec,vP] of ergative case.

We can imagine a hypothetical form of A-movement that would falsify this prediction—perhaps an intransitive counterpart for *iduri*. Hualde & Ortiz de Urbina (2003) lists no intransitive raising verbs, but the *ari* construction discussed in §2.3 seemed to have a similar effect:

- (36) *Ni egunkaria irakur-tzen ari naiz.*
 1S-ABS newspaper.ABS read-IPF PROG AUX.1SA
 ‘I am reading the newspaper.’

The crucial detail in this example is that the first person singular pronoun, the A argument of the verb *irakur*, is nonetheless absolutive rather than ergative. The analysis given in §2.3 posits that *ari* is actually a verb that assigns exceptional absolutive(=accusative) case to the specifier of a lower VP (a position typically associated with ergative case). Holmer assumes that external arguments are base-generated in [spec,VP], but a straightforward recasting of his analysis has *ari* instead assigning absolutive case to [spec,vP]—falsifying prediction (35).

(37)



If this is basically the right structure for a canonical *ari* progressive, then the analysis proposed in the preceding section is wrong. There are, however, good reasons to believe that this is *not* the right structure. First of all, under this analysis *ari* assigns case but no ϑ -role.⁵ This makes the following prediction:

- (38) **Prediction:** If *ari* does not ϑ -mark its subject, then *ari* will always select a clausal complement containing a ϑ -marked argument.

Prediction (38) is necessary to ensure that the ϑ -criterion is not violated, and more generally to give a coherent semantic interpretation to the sentence. If the subject in an *ari* construction is not in an A-chain that terminates in a ϑ -position, the result should be as ungrammatical as ‘*John seems something.’ First of all, *ari* sometimes selects a complement containing no ϑ -positions at all, as in (39):

⁵This would seem to qualify *ari* as a raising predicate that somewhat paradoxically does not cause raising.

- (39) a. *Zer ari gara?*
 what PROG AUX.1PA
 ‘What are we doing/saying?’
- b. *Hura ere zerbait ari da*
 3s.ABS also something PROG AUX.3SA
 ‘S/he is also doing something.’

Both of those sentences should be ungrammatical if *ari* does not \varnothing -mark its subject, but Hualde & Ortiz de Urbina (2003) suggests that sentences like these occur ‘often.’ Given the sentences above, we can conclude that *ari* does not obligatorily select a verbal complement, but a closer examination reveals that it *never* selects a verbal complement. When *ari* selects a clausal complement, the verb of the sub-clause typically takes the suffix *-t(z)en*, which Holmer treats as IPF. A verb in that configuration can also take a locative, allative, or dative nominalization:

- (40) a. *Lan egiten ari da.*
 work do.NOM.LOC PROG AUX.3SA
 ‘S/he is working.’
- b. *Bethi eraintza mota beren urruntzera ari behar da.*
 always crop type same.GEN get.away.NOM.ALL PROG must AUX.3SA
 ‘One has to do something to get away from the same types of crop.’
- c. *Sendatzeari ari da.*
 heal.NOM.DAT PROG AUX.3SA
 ‘S/he is recovering.’

Upon noticing the robust tendency of *ari* to select a deverbal complement of some kind, overwhelmingly nominalizations, we should think to the fact that *-t(z)en* is not only an imperfective suffix, but a homophonous indefinite locative⁶ as well. If the *-t(z)en* commonly found on *ari*-selected verbs is a locative nominalization rather than imperfective morphology, then we must rethink our assumption about *ari*’s complementation frame.

⁶Nominals in Basque are inflected for definiteness, marked with the final suffix *-a*. This morpheme never appears on complements of *ari*.

Nominalized verbs and *only* nominalized verbs in Basque may optionally take genitive-marked direct objects, giving us an easy way to determine which *-t(z)en* is at issue. Sure enough, it is possible to get an O argument in genitive case with *ari*:

- (41) *Elkarren kitzikatzen ari ziren.*
 each.other.GEN tease.NOM.LOC PROG AUX.PST.3PA
 ‘They were teasing each other.’

We can now conclude the following, *contra* Holmer:

1. *Ari* selects an oblique complement, usually denoting some kind of activity.
2. *Ari* ϑ -marks its subject. Because arguments are base-generated in ϑ -positions, we know that *ari* subjects are not raising out of a lower clause, and thus never appear in a [spec,vP] position.

This makes *ari* look like a typical intransitive verb. In fact, *ari* is in many ways identical to the English word ‘engaged’, which also must be supported by an auxiliary ‘be,’ just as *ari* must be supported by the auxiliary ‘*izan*.’ It also selects a PP complement: ‘to be engaged [in an activity],’ and it ϑ -marks its subject, rather than raising an argument from a lower clause.

With the analysis of *ari* as a raising/ECM verb falsified, we also lose (or rather, Holmer loses) a prime motivation for identifying absolutive with accusative case. After all, if absolutive case really is accusative, then we would expect to see some ECM effects, but in fact we see none.

4.4 The Assignment of Inherent Case

In the previous section we determined that the asymmetries between the assignment of absolutive case and ergative case require us to conclude that ergative case is assigned in a fundamentally different way. Furthermore, we saw that it is only necessary to occupy [spec,vP] at some point in the derivation to receive ergative case, and that it need not be assigned at first or last merge. A comprehensive derivational account of inherent case in

general⁷ is beyond the scope of this thesis, but in this section I will outline some parameters for such an account.

4.4.1 No [CASE]-Feature

This point is absolutely essential. If D^0 is enumerated with a [CASE]-feature, then this feature can only be valued *one time*. As we concluded in §4.3.4, it is possible for inherent case to be assigned to an argument that already has absolutive case. Another problem with positing a [CASE]-feature for inherent case is the fact that features are valued via Agree, and inherent case assigners do not necessarily enter into Agree with the arguments they assign case to. If the only difference between the assignment of structural case and the assignment of inherent case were the means by which [CASE] got valued, then the two would not be different enough. Finally, inherent case-marked arguments undergo A-movement (see again §4.3.4), which should be disallowed if their [CASE]-feature is already valued.

Pesetsky & Torrego-style Feature-Sharing Agree (see §3.3.2) gives us a conceptual reason to reject [CASE]-features. Under Feature-Sharing, a feature must be interpretable *at some location* in the sentence. Nominative case, to use a highly relevant example, is a [TENSE]-feature that is uninterpretable on D^0 , but interpretable on T^0 . [CASE] *per se*, however, is never interpretable at any location, and should thus crash the derivation at LF.

4.4.2 No Reliance on ϑ -roles or First Merge

There are some good reasons to link inherent case to ϑ -assignment. As pointed out in §4.3.1, each inherent case is typically associated with a finite set of ϑ -roles. Because ϑ -roles are assigned at first merge (i.e., arguments are base-generated in ϑ -positions), inherent case is often described as ‘case assigned at first merge.’ But this wrongly predicts that there will be no raising predicates that assign inherent case. In §4.3.4 we saw that *iduri* assigns inherent ergative case but no ϑ -role, excluding both ϑ -assignment and first merge as possible explanations.

⁷To date, no one has addressed inherent case within a framework that lacks [CASE]-features, such as the one adopted here.

4.4.3 Agreement and Inherent Case

Although we may be able to explain the assignment of inherent case without appealing to Agree, we will certainly need it to explain φ -feature agreement on auxiliaries. In Basque, auxiliaries obligatorily agree in person, number, and case with absolutive, ergative, and dative arguments.

This may give us an important clue about the nature of inherent case, but there are at least two possible ways of explaining inherent case agreement. First, it might tell us that inherent case is visible to the syntax. This is not a necessary fact—inherent case could be marked in such a way that it played no further role in the derivation until the Morphology/PF interface. If inherent case is visible to probes relatively late in the derivation then we can deduce that inherent case-marked arguments host unique, probe-able features.

On the other hand, the auxiliary may not be inheriting its φ -features from the arguments directly, but from v^0 . It seems reasonable to assume that v^0 shares φ -features with the argument that it licenses and case-marks, and therefore v^0 could just as easily serve as the goal for an agreement probe from the auxiliary. This approach has more flexibility in terms of explaining quirky agreement,⁸ which would not be predicted if auxiliaries enter into Agree directly with DP arguments. Agreement with v^0 also gives us no reason to posit [CASE]-features, which we should avoid for conceptual as well as empirical reasons.

4.5 Summary

In this chapter I have claimed that absolutive case is uT on D^0 , or ‘nominative.’ Following that, I argued that ergative case is *not* structural, but inherent case assigned to [spec,vP]. Furthermore, evidence from A-movement shows that inherent case can be assigned ‘over’ structural case (uT), and is thus of a completely different nature. Although it is still quite unclear how, exactly, inherent case is assigned, I have set forth what I hope are useful parameters for a coherent explanation.

⁸Fernández & Albizu (2000) proposes that Basque has a form of quirky agreement which they call ‘Ergative Displacement,’ although it is not clear that this represents a genuine syntactic phenomenon or just an odd instance of morphological syncretism.

Chapter 5

Conclusion

5.1 Empirical Coverage

This thesis has argued for two major points: first, that ergative case in Basque is inherent case assigned to [spec,vP] while absolutive case is the spelling-out of an uninterpretable [TENSE] feature on D⁰. Second, I argued that the current theory is unable to account for the assignment of inherent case in a coherent manner. The former point is essentially empirical and further analysis of the data will either support or falsify it, but the latter is a conceptual argument that I will discuss further here.

Epstein & Seely (2006), though it has little to do with case *per se*, was a major inspiration for the conceptual arguments put forth here. Minimalism as a framework imposes rigid restrictions on explanations, and we must sometimes sacrifice an amount of empirical coverage in the name of theoretical coherence and minimality. This is because the goal of generative syntax is what Einstein called ‘the grand aim of all science’:

...which is to cover the greatest possible number of empirical facts by logical deduction from the smallest possible number of hypotheses or axioms.

—Einstein (1954), quoted in Epstein & Seely (2006) p. 3.

Although Pesetsky & Torrego’s account of structural case is a step backwards in terms of empirical coverage (accusative case is missing from their theory, see p. 28), it at least arguably makes up for it by eliminating a semantically vacuous feature of UG. Language,

whether used for thought, communication, or social interaction, is first and foremost a semiotic system, and we ought to be immediately suspicious of features of language that do not have anything to contribute to semantics. Most of Epstein & Seely (2006), for example, argues against the [EPP]—a feature whose effect seems to be limited to Merge and Move, with no semantic relevance at all. This comes at the expense of some empirical coverage (though not as much as one might assume), but hopefully this is a temporary setback on the way to a better theory of Universal Grammar.

The elimination of structural case is, I believe, a similar pursuit. The hypothesis that structural case is μT on D^0 costs us in terms of empirical coverage, but recall that the alternative is the conceptually groundless claim that [Nom-Case] valuation is a ‘byproduct’ of checking φ -features against finite T^0 . If a theory requires the stipulation that three independent features (φ -features, tense, and case) conspire together¹ for no particularly good reason, then we should be open to considering alternatives. If nominative case is μT then many of the facts about nominative case licensing and A-movement restrictions fall out quite naturally. Of course, it is still counterintuitive that D^0 should have a tense feature at all, but we should not be *too* surprised given the fact that there is empirically a high degree of correlation between finite tense and nominative case.

Of course, eliminating [CASE] makes an account of inherent case assignment far more difficult, and we cannot appeal to a unifying phenomenon like ‘Tense’ to do the heavy lifting. But returning to [CASE] features as a last resort not only undermines our theory, it causes us to make the wrong predictions about multiple case assignment (both in terms of case-position to case-position A-movement and case stacking).

As scientists we have a commitment to empirical data, but this has the side-effect of populating our theories with sinister *ad hoc* elements and axioms. The only way to eliminate these and progress towards a more economical, and hopefully more accurate, theory is to be ruthless in our elimination of features that seem in any way extraneous, so long as we can achieve thereby a small amount of new empirical or conceptual ground that was unavailable to us before.

¹See p. 22.

5.2 Typological Ramifications

Although I have concluded that ergative case is inherent case *in Basque*, I hesitate to agree with Woolford (2006) and Legate (2006) that ergative case is *always* inherent. It is possible that the tests given in Woolford (2006) and applied to Basque in §4.3 are unfairly stacked in that direction, given that Minimalism practically forces us to choose one case to call ‘nominative,’ and absolutive case is the most obvious choice (§4.2).

I contend that the status of structural case is currently something of a mystery—if Pesetsky & Torrego (2004) are on the right track, then more work will be done before we can make claims with any certainty about languages that, unlike Basque, have multiple structural cases. The claim that ergative case is always inherent amounts to claiming that the only way for A arguments to get structural case is to pattern together somehow with S arguments. While this is certainly possible, it requires a much more robust theory of structural case.

Furthermore, relegating ergative case to ‘inherent’—a class that includes cases like the ‘dative of respect’ and the ‘superadjacent’ case²—may privilege grammars that use structural case for all of their core argument roles. After all, inherent case is overwhelmingly assigned to peripheral arguments like possessors, benefactors, instruments, etc.—especially those with built-in semantic roles.

Whether structural or inherent, interpretable or not, case does have a function within linguistic communication—that of distinguishing between arguments in different thematic roles. We glanced at this fact on page 3, reiterating the conclusion from Dixon (1994) p. 63:

S is normally unmarked, since there is no other NP in an intransitive clause from which it must be distinguished; it then falls together with the unmarked transitive function.

In other words, languages (to use a gross anthropomorphism) prefer to economize their case inventory by collapsing S together with either A or O, yielding either S/A (‘nomina-

²This term comes from Haviland (1979) for a case in Guugu Yimidhirr (Pama-Nyungan, Australia) that semantically resembles the English ‘on top of X’, where X is the argument marked with superadjacent case.

tive’³) or S/O (‘absolute’). Only recently have we had the tools to objectively evaluate which, if any, alignment is optimal for communication.

Jäger (2007) argues that Evolutionary Game Theory, “a mathematical framework to model evolutionary processes [that] is the result of joint efforts of theoretical biologists and economists,”⁴ can give us a way of investigating this question. In order to apply Game Theory to linguistics (specifically morphology), Jäger defines ‘the game’ as a single utterance situation where the players are speakers and hearers. His simulation is intended to find A/S/O alignments (including person-based splits) that are ‘stochastically stable’—or those in which small, random changes to the alignment scheme are unlikely to be adopted. Out of 16 possible configurations, Jäger finds that only 4 are stable, and that these account for the ‘majority’ of natural languages.

Of these 4, all include a person-based split of some kind in which arguments are zero-marked (or pattern together with S) if they are either likely to be (1) highly animate (e.g., personal pronouns) and in A function or (2) inanimate (common nouns) and in O function. The only exception to this is the Zero-marking strategy in which arguments do not show morphological case at all. Even given these constraints, the split-ergative pattern of Dyirbal is just as stable as the ‘differential object marking’ pattern of English. Basque, with no person based splits in morphology, is ‘stochastically unstable.’ Although Jäger is able to make some comments on the overall distribution of ergative languages based on his results, the conclusion that exceptionally ergative languages like Dyirbal are as stable as languages that share English-type accusativity suggests that the answer must be found elsewhere.

If ergative case is always inherent, then this could point us to an explanation for the fact that ergative morphology is much less common than accusative morphology. Perhaps there is something about the nature of inherent case that makes it easier to assign to peripheral arguments, but this is purely speculation.

³N.B.: This is a definition, not a statement of fact. I do not mean to undermine the claim that absolute=nominative, which has nothing to do with S/A/O alignments.

⁴p. 75

5.3 Final Remarks

The Minimalist Program is a strong foundation and methodology for linguistic analysis, provided that we take it seriously as a project. The way forward in Minimalism is to always try to explain more using less, and to always prefer meaningful elements over purely formal ones. There is a great deal of progress still to be made here; Epstein & Seely (2006) bravely takes on the A-chain and the EPP, but is only partially successful in recovering their empirical ground. Similarly, although I freely admit that I have lost some empirical ground, I hope that I have made some contribution to the Minimalist project.

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