IN THE EVENT OF AN EVENT:
A MINIMALIST ACCOUNT OF 'SUBJECTS'

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by

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ABSTRACT

This thesis investigates, within a minimalist framework (Chomsky (1993 et seq.)), some of the properties of "subjects". It is demonstrated that the term "subject" picks out whatever element occupies the highest argumental position within its clause at LF, following reconstruction effects.

In Chapter One, several recent analyses of certain "non-finite" clauses in the ergative Inuktitut/West Greenlandic languages and Lezgian are examined. I conclude that, in each case, the clauses in question are finite. It is proposed that the conspicuous absence, or near-absence, of non-finite control structures in ergative languages derives from the fact that arguments licensed as PRO in such languages do not typically occupy a position where they can be controlled by an element in a higher clause. I consider one strategy made use of by the (ergative) Mayan language Jacaltec to make such clauses possible.

In Chapter Two, standard assumptions with respect to a 'subject/object' extractability asymmetry are reconsidered, in light of data from English. It is shown that A'-extraction of 'subjects' of unaccusative or passive VPs is not as sensitive to intervening islands as is extraction of 'subjects' of transitive or unergative VPs. This follows, I demonstrate, from the requirement that both types of arguments raise overtly to an A'-position prior to extraction, attracted by an [event] feature of the C head, with the former type of argument necessarily raising via an intermediate A-position, while the latter type must raise directly. Second, two non-finite constructions – one in Italian and another in European Portuguese – are considered. The interaction of the proposed [event] feature of C^0 with certain other features is shown to derive both fixed word-ordering restrictions and the unexpected availability of 'nominative' Case in these clauses in both languages.

In Chapter Three, I offer a preliminary analysis which derives 'accusative' versus 'ergative' Case checking patterns in strict terms of Economy, depending on the strength of certain features. I show that no special condition, like the *Obligatory Case Parameter* (Bobaljik (1993)), need be introduced to derive the differences between the Case patterns of accusative and ergative languages.

ACKNOWLEDGEMENTS

This thesis is unfinished. That said, it seems highly unlikely that it ever *will* be finished, so it is, perhaps, better that the two of us part now, while still on (more or less) speaking terms.

There are many people to thank and I hope I can be forgiven if I forget someone.

A conspiracy of a great number of people pointed me in the direction of this thesis. Starting in Montréal (as all things do), Prof. Joe Macaluso at Concordia is to be thanked for pointing out that, er, perhaps Spanish/Portuguese literature wasn't my forte. Thanks also to Jack Grayson, who then took over ("Damn it, Doug, you're a linguist, not a polyglot!"), and helped me to love the field. Jack must also be thanked for many interesting times, above and beyond the call of duty (in addition to a devil of a lot of wine).

If Jack made me start thinking about language and linguistics in general, Mark Campana taught me to think about it in the way I do today. Taking nothing away from the many excellent instructors which I have had over the years, Mark is quite simply the finest teacher I have ever come across. Without his influence, it is unlikely that this thesis would exist, and I thank (occasionally, curse) him for his encouragement. Of course, Mark's GB course would be difficult to imagine without the added benefit of the Thursday Night Linguistics Pool Club, and all its members deserve credit and thanks: David Cameron, the longest-serving member (of all-time); the aforementioned Mark C.; Mark Simoneau, without whom I would not have survived the last year in Montréal (and frequent co-conspirator in journeys ranging from the Boston LSA (I won't mention the lamp-post incident) to 3am trips to the dépanneur from Jack's to make illicit wine purchases); and Paul Law, our later member, who was always willing to be pestered with questions about the ECP while trying to line up a shot.

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Jonathan Bobaljik read a near-final draft of this thesis and made many helpful comments and criticisms, pointing out, amongst other things, a number of inconsistencies. I would very much like to acknowledge his considerable assistance, though I will admit that many of the problems that he observed remain unaddressed in this final version. His comments should keep me busy for a number of years into the future.

Some of the ideas contained in this thesis were presented in a talk at the Annual Meeting (1996) of the Canadian Linguistic Association, and I thank various members of the audience there for comments and discussion (here, too, Alana deserves thanks for calming nerves and for making me eat something – aside from coffee – before talking). I received a travel grant from Memorial University to attend the conference, in addition to financial assistance throughout my two years here, for which I am grateful. Finally, I can assure that no animals were harmed in the writing of this thesis (though certain cats may have been firmly scolded for walking across keyboards, shredding draft versions, etc.).

As my wife is fond of observing, life goes on in spite of a thesis deadline. Some people who have made my life more interesting and enjoyable are: Aaron, Charles, Craig, David, David, Garth, Jack, Jeff, Jeong-Sil, John, Julie, Mark, Mark, Melanie, Michael, Nancy, Rita, Robert, Susan, and Tracey. I thank them all, especially former apartment mates, and many unnamed others.

Thanks to my parents, who, to my recollection, have never asked me why I wished to pursue such an odd-sounding discipline, even presenting me with *The Antisymmetry of Syntax* for Christmas one year. (Here, too, the owner of the Listowel, Ontario bookshop who special-ordered the book for my mother deserves mention for utilising the book to read herself to sleep – rather quickly, she pointed out to my mother – until Mum picked it up.) I am grateful for all their support. Thanks also to my brothers, Charles and Robert, and to my entire extended family, especially my grandparents.

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My wife, Susan Earle, has supported me in every imaginable way during the past several months when this thesis was ostensibly written, especially during the past four weeks when the thesis was *really* written (what *did* happen to all that stuff I wrote in

April?). She always provided support when I needed it, yet also deftly avoided me (at my request) when, for example, Chapter Two took a particularly nasty turn. It is inconceivable that I would had made it through this without her, and it is to her that I dedicate this thesis.

Finally, I would like to thank coffee, without whom none of this would be possible.

CONTENTS

Chapter Three

ABBREVIATIONS USED IN THE GLOSSES

AP = antipassive
asp = aspect
cl = clitic
dem = demonstrative
dep = dependent (aspect)
dir = directional
ds = directional suffix
emph = emphatic
Encl = enclitic
fut = future
HAB = habitual
imperf = imperfective
ind = indicative (mood)
inf = infinitive
intr = intransitive
intens = intensifier
Neg = negation
nf = non-finite
part = participle
PASS = passive
prt = participial (mood)
perf = perfective
POSS = possessive
pst = past (tense)
Refl = reflexive
rp = recent past
SUBJ = subject agreement
tr = transitive

ABS	absolutive
ACC	accusative
COM	comitative
DAT	dative
ERG	ergative
GEN	genitive
INESS	inessive
NOM	nominative
OBL	oblique

De omnibus dubitandum.
One must doubt everything.

CHAPTER I

Putting 'subjects' in their place(s)

1.1 Introduction

While grammatical relations are regarded as primitives in many theories of language (for example, Relational Grammar and Lexical-Functional Grammar), notions of 'subject' and 'object' are defined rather in configurational terms in generative grammar. Since Chomsky (1965), which defined 'subject' as [NP,S] and 'object' as [NP,VP], generative grammarians have argued that grammatical relations are irrelevant to the formulation of grammatical rules. Nevertheless, there is evidence (see, for example, several of the papers in Li (1976)) that there does appear to exist a natural class of 'subjects' across languages. What, then, is a 'subject', and can the notion be usefully defined in a Principles and Parameters approach to linguistic knowledge as is adopted by this thesis? In the following sections, I turn briefly to an examination of the treatment of 'subjects' in the generative literature.

1.1.1 The Extended Projection Principle

Principles and Parameters theory (e.g., Chomsky (1981)) has undertaken to demonstrate that the grammatical roles accepted as primitives in Relational and Lexical-Functional (not to mention traditional) Grammar

can, and should, be expressed in terms of structural position. Nevertheless, the notion of 'subject' has survived into the theory to some degree, leading Chomsky (1982) to offer the Extended Projection Principle (EPP), which is stated here as (1), as a descriptive observance that all clauses must have a 'subject':

(1) [Spec,I] must be filled at S-Structure.

Thus, the EPP, taken together with the Case Filter (2),

(2) Lexical NPs need Case,

requires that if [Spec,IP] is not filled overtly at S-Structure, then the position be filled by a trace (*t*), PRO, or *pro*.[1] PRO is licensed iff an overt NP is impossible (i.e., when [Spec,IP] is governed neither by a lexical head (e.g., the complementiser *for*, or as in ECM-type constructions) nor by INFL bearing [+tense]), as can be seen in (3) where PRO, the 'subject' of the embedded infinitival clause, is controlled by the 'subject' of the matrix clause, *few*:

(3) Few are sufficiently idiotic [PRO to test nuclear weapons].

The distribution of PRO, then, is limited to the 'subject'-position of non-finite clauses when Case cannot be gotten 'elsewhere'.

[1] For discussion of the properties and distribution of *pro*, see, for example, Chomsky (1981), Rizzi (1986), and the papers included in Jaeggli & Safir (1989). I set aside discussion of traces in 'subject'-position for the moment, as well.

1.1.2 The EPP and the Minimalist programme

Under Chomsky's (1993) and Chomsky & Lasnik's (1993) treatment, the EPP is reduced to a feature property of the functional head T(ense). That is, T^0 contains an N-feature which must be checked against a category XP in its checking domain. In, say English, then, nominative Case is checked by a [+finite] T^0, PRO can be licensed (checked), for what Chomsky & Lasnik (1993) term "null" Case, by a [-finite] T^0, and, presumedly, the EPP feature is a non-Case feature of T^0.[2] The specific properties of the feature from which the EPP can be derived are open to some debate. Chomsky (1995) suggests that it is plausible to assume it to be a strong D(eterminer)-feature, although this, of course, is only one possibility pending further examination. I will proceed with the view that Chomsky's proposal is adequate for my present needs, but with the intention of deriving the EPP from a more specific feature as the analysis progresses.

1.2 Theoretical assumptions

This section briefly mentions some of the features of the theoretical model that this thesis assumes – the Minimalist Programme (Chomsky (1993,1994,1995) and much ongoing work). Necessarily, for reasons of space, I here take what amounts to a very preliminary glance at two rather salient

[2] While the introduction of "null" Case into the theory will not be of central importance to this thesis, I will return to it later in this chapter (§1.4.2) and in Chapter Two. The interested reader is referred to, for example, Martin (1995), Chomsky & Lasnik (1993), and Watanabe (1993a) for background and further discussion.

aspects of the model: Checking theory and clause structure. Other facets of the framework will be introduced as they become relevant to the discussion.

1.2.1 On features

Items are assumed, following Chomsky (1993), to be inserted into the derivation from the lexicon with their morphological features already intact. Movement in the syntax is then driven by the need to have these features checked. Any movement not triggered by this requirement is excluded. Whether this movement takes place in the overt syntax or in the covert syntax (LF) is determined by the *feature strength* parameters of individual languages. Morphological features must be weak or strong; strong features must be checked in the overt syntax, since they are uninterpretable at the interface level PF, where weak features must wait to be checked until LF (by *Procrastinate* (Chomsky (1993:30))).

"Features" are elements of a lexical entry which are directly involved in the human language computational system which yields the two interface levels that the Minimalist model assumes: PF and LF, corresponding to the phonological output and the interpretable representation, respectively. The interface levels are derived, via the computation, from a hypothetical *workspace* to which the set of initial *terms* of the derivation have been entered.[3] The point in the derivation at which the structure built by the

[3] *Term*, here, refers to a lexical item. Following Chomsky (1995), I will frequently refer to the elements of the syntactic computation as *terms*. In the text, *a hypothetical workspace to*

syntax (see below) is fed to the PF interface (either directly or via phonological/morphological processes which render it a well-formed PF object) is Spell-Out.

Several economy considerations (including Procrastinate, already mentioned) constrain movement. Transformations in the overt syntax are subject to the *extension condition*, which requires all such operations to target the root phrase marker, ensuring strict cyclicity in this component of the computation.[4] The *Minimal Link Condition* (MLC), a further constraint, will be considered in the following section on clause structure.

1.2.2 Clause structure and the terms of VP

Following Pollock (1989), Chomsky (1991) assumes that T and Agr are independent heads, each projecting their own phrases. Further, the structure Chomsky supposes 'splits' Agr into two heads, one a sister to the TP, the other projecting a phrase that is the complement of T^0.[5] It is important to note that, for Chomsky & Lasnik (1993) (and numerous subsequent researchers), the Agr heads are collections of ϕ-features non-

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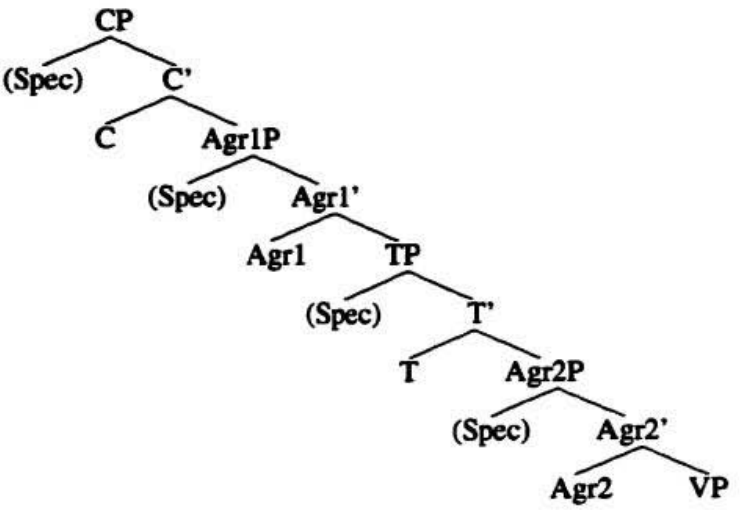
which...., is equivalent to Chomsky's (1995) *Numeration*.

[4] This, of course, is not entirely true, since head-adjunction always targets an embedded element. While the extension requirement as adopted in this thesis, then, is not as precise as one would like, I make no attempt to resolve the issue here (see Bobaljik (1995a: chapter 6) and Watanabe (1995) for further consideration on this point).

[5] Or as the complement of Neg^0, if present.

distinct from one another.[6] The universal structure of the clause is taken, then, to be as in the informal representation in (4):

(4)



It has been suggested in more recent research (i.e., Chomsky (1994,1995)) that Agr heads can be dispensed with altogether[7] if a more "minimalist" theory of phrase structure is assumed, rather than standard X'-theory. The theory, as it has come to be known, from Chomsky (1994), is *bare phrase structure*, and I adopt it here.[8]

[6] Such an assumed configuration is able to capture observations made by Kayne (1989) on the agreement patterning of (some) Romance past participles. I will not enter into a discussion of this topic here. See also Belletti (1994) for relevant discussion of agreement ordering.

[7] Or, at least, in most cases.

[8] While this thesis does not deny the possibility of Agr heads, neither does it take them to be universal components of a clause. Inasmuch as it is successful in forwarding its analysis without recourse to assuming such heads, it might be taken as evidence of the viability of Chomsky's suggestion.

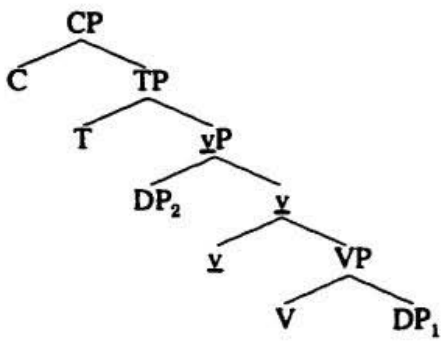
Structure-building is constrained by two possible operations: *Merge* and *Attract/Move*.[9] Attract/Move, in turn, is subject to the MLC, stated here as (5) (from Chomsky (1993:311)):

(5) *Minimal Link Condition*
K attracts α iff there is no β, β closer to K than α, such that K attracts β.

"Closeness", as defined here, is assumed in terms of the derivational notion of equidistance introduced in Chomsky (1993).

The phrasal structure that I assume for a simple transitive clause appears in (6):[10,11]

(6)



I will suppose, following Chomsky (1995), that an unaccusative predicate has the simple VP structure as in (7):

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[9] As Kitahara (1995) observes, there is a certain redundancy between the two operations, in that *Attract/Move* would appear to consist of a copying operation plus *Merge*. See Bobaljik (1995b) for one possible elimination of this redundancy that is not considered in this thesis.

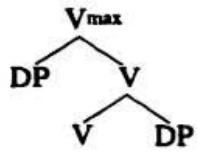
[10] Verbal arguments in many of the representations throughout this thesis are arbitrarily shown to be DPs for expository purposes; in (6), DP_1 the internal argument, and DP_2 the external argument.

[11] Since this thesis will maintain that 'subjects' occupy the [Spec,C] position in the overt syntax of many languages, the structural position of a possible Neg(ation)P – if, indeed, there is a universal NegP position – is left open for the moment. In (6), NegP might immediately

(7)

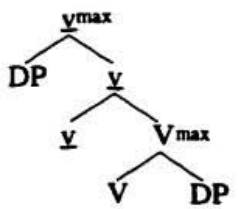
Following this line of analysis, I assume that all internal arguments occupy the positions of Spec and complement of the verb, (8) showing the relevant proposed structure:[12]

(8)



Extending this approach, it follows that external arguments occupy a position outside of the VP, and Chomsky (1995), following the work of Larson (1988) on double object constructions and Hale & Keyser (1991 et seq.), suggests that they occupy the Spec position of a light verb, v, which, in turn, takes the VP as its complement, as is represented in (9):

(9)



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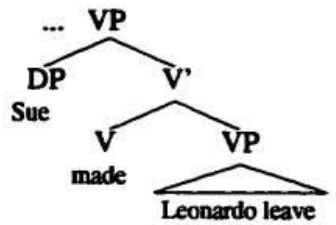
dominate TP or vP, depending on the location of the various arguments and the verb(s). The issue should become clearer as the discussion proceeds.

[12] I am glossing over consideration of possible thematic hierarchy rankings for the moment, referring the reader to discussion in, for example, Larson (1988), Grimshaw (1990), Baker (1993), and Takano (1995).

Thus, the proposed argument structure of a typical 'transitive' verb resembles the familiar analysis of causative constructions, as in the relevant structural representation of the English sentence (10):[13]

(10) a. Sue made Leonardo leave.

b.



In an 'accusative' language like English, the nominative Case-feature of DP_2 in (6), following the standard analysis, is assumed to be checked by some feature of T^0. I suppose that the feature that checks the accusative Case-feature of DP_1 (maintaining the assumption that the representation in (6) yields an English sentence) is a property of $\underline{v}^0$, rather than of V^0.[14] In a language like English, where the object does not typically undergo A-movement past the verb, such checking is covert, via adjunction of the formal features of DP_1 to whatever maximal head (H^{0max}) contains $\underline{v}$.

Checking takes place in a Spec-head relation, or via head-adjunction. I assume the definition of *checking domain* as developed in Chomsky (1993)

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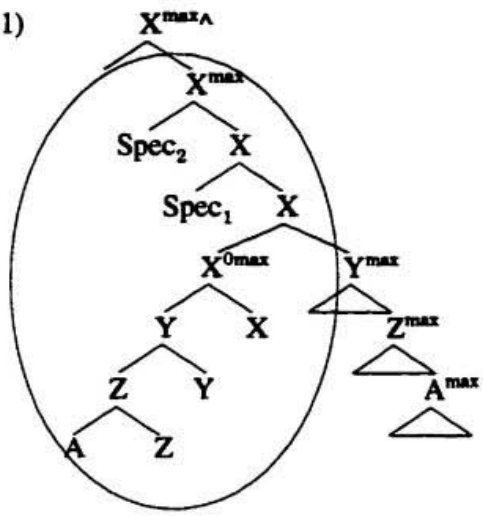
[13] Notice also that this idea revives, at least in part, the approach of the "generative semanticists" (for arguments against this idea at the time, see especially Fodor (1970); for discussion, see Newmeyer (1980)) that held that predicates like e.g. *kill* are derived from e.g. *cause to die/make die*.

[14] My reasons for this will become apparent, especially in Chapter Three. An immediate consequence is that the only *structural* Case available in a clause with an unaccusative as its main verb should be whatever Case is checked by T^0, the only other Case-checker, $\underline{v}^0$, never being selected into such a clause. This makes certain predictions contrary to those of, for example, Laka (1993b) for Basque. These will be dealt with in Chapter Three. Cases of passive and antipassive VPs, too, have a natural, though less obvious, working out. Passives

and elaborated in Chomsky (1995), where the checking domain of a head H includes everything contained within the maximal projection of the maximal head in which H is contained (i.e., the projection may be the maximal projection of H, though it need not be). (11) illustrates, the ellipse indicating the checking domain of the head H(Z):

(11)



1.3 'Subjects' revisited

1.3.1 Some necessary terminology

'Subject', as we have seen in the preceding discussion, is a convenient label. I have used it quite frequently where to do otherwise would involve much lengthier exposition. Nevertheless, referring to a natural class of 'subjects' while at the same time attempting to restrict the very definition of what a 'subject' is would lead to a necessarily circular argumentation. As

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are discussed in §2.1.4, and antipassives in Chapter Three.

such, I will adapt the terminology introduced in Dixon (1972,1979), and now familiar to the literature on ergativity, to my needs.[15] Additionally, where Dixon does not distinguish the sole *agent* argument of an unergative predicate from the sole *theme* argument of an unaccusative predicate, the distinction will play a crucial role here.[16] Consequently, I retain the term *S-argument* to refer only to the agent argument of an unergative predicate, and introduce the term *T-argument* to refer to the theme argument of an unaccusative verb. The agent argument of a transitive verb will be called the *A-argument*, while the *theme/patient* argument of a transitive verb will be called the *O-argument*. I will refer to the derived 'subject' of a passive VP as a *D-argument*. The notations used in this paper, and the Case-features associated with each such argument in English, are laid out in (12):

(12)

	Notation used in this thesis	Case-feature association in English
external argument of transitive	*A-argument*	NOM
internal argument of transitive	*O-argument*	ACC
external argument of unergative	*S-argument*	NOM
internal argument of unaccusative	*T-argument*	NOM
internal argument of passive VP	*D-argument*	NOM

[15] Notably, Dixon's approach takes A, S, and O, in reference to transitive subjects, intransitive (unergative *and* unaccusative) subjects, and transitive objects, respectively, to be universal primitives of the human language faculty. In contrast, I make use of the labels only as far as they are convenient notations, more specific than 'subject' and 'object', in referring to lexical items that must be inserted into a derivation in a certain structural position. In this, I assume some form of Baker's (1988) Uniformity of θ-Assignment Hypothesis, as stated in (i), to hold:

(i) **UTAH:**
Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-Structure.

[16] The distinction is due to Perlmutter (1978), in the framework of Relational Grammar, and subsequent adaptation of Perlmutter's proposal into P&P theory by Burzio (1986).

1.3.2 Ergativity

While a somewhat more precise definition of the phenomenon of ergativity will not be required until the third chapter of this thesis, some rudimentary details of the *ergative/accusative* language-type distinction should be made familiar for the present discussion. For introductory purposes, I conditionally offer the following definition: an ergative language is a language in which the external argument of an intransitive predicate and the internal argument of a transitive predicate pattern themselves in the same way with respect to Case-marking and verbal agreement, in a manner distinct from the Case and agreement patterning of the external argument of a transitive verb. The sentences in (13) (Inuktitut (Central Arctic)) serve to exemplify an *ergative* language:

(13) a. Anguti-up nutaraq taku-vaa.
man -ERG child(ABS) see-tr.ind,3s/3s
'the man sees/saw the child'

b. Angut niri-vuq.
man(ABS) eat-intr.ind,3s
'the man eats/ate'

c. * Anguti-up niri-vuq.

This type of language stands in contrast to the more familiar *accusative* languages, in which external arguments of both transitive and intransitive verbs form a natural class, differing from the Case and Agreement patterning of transitive objects, as in (14) (German):

(14) a. Der Mann seht den Hund
the.man(NOM) see.PRES,3s the.dog(ACC)
'the man sees the dog'

b. Der Hund ißt.
the.dog(NOM) eat.PRES,3s
'the dog eats'

c. * Den Hund ißt.

Such a definition is neither complete nor totally correct, but will suffice for present purposes. Revisions to the above will be made during the course of the paper, as required.

1.4 'Subjects' I: Some syntactic properties within the clause

First, I briefly examine some syntactic properties within the clause that appear to group S-, A-, T-, and D-arguments together in a natural class, since most analyses of ergativity since Anderson's (1976) paper have attempted to address the observation made there that there does appear to be a constant notion of 'subject' across both accusative and ergative languages. Accepted standard tests for 'subjecthood' (e.g., reflexive binding, *Equi-NP deletion*) are frequently invoked (see Keenan (1976), Silverstein (1976), and Van Valin (1977), among others) to show that, despite the differences in Case-marking, both transitive and intransitive 'subjects' are prone to the same processes across both language types.[17] In the following, however, I intend to demonstrate that, while this observation may be true of binding relations and control of *pro*,[18] control of PRO is a substantially more complex

[17] The following is not intended as an exhaustive inventory of 'subject'-like properties. For discussion along these lines, see, for example, many of the papers in Li (1976), Murasugi (1992), and the introductory chapter of Harley (1995).
[18] In the sense of Suñer (1984) for Spanish.

matter. Further, the remainder of this chapter begins an analysis that illustrates that whatever common properties can be attributed to 'subjects' result from a number of factors, and that "the subject" cannot, in any sense, be considered a primitive of the grammar.

1.4.1 Anaphoric binding

As is pointed out by Anderson (1976), Keenan (1976), and a host of other researchers, it appears to generalise across language typologies that A-, S-, T-, and D-arguments c-command the rest of the clause. Some examples of anaphoric binding in English (15), Inuktitut (16), Spanish (17), and West Greenlandic (18) are illustrated in the following:

(15) a. Jean said [that *Lucien and Preston*$_i$ hate *each other*$_{i/*j}$].
b. *They*$_i$ were walking towards *each other*$_{i/*j}$.
c. *We*$_i$ arrived at the same time as *each other*$_{i/*j}$.
d. *Lucien and Preston*$_i$ were slandered by *each other*$_{i/*j}$ in the Commons.

(16) Angut ingmi -nik taku-vuq.
man(ABS) himself-MOD see -ind/intr,3s
'the man$_i$ sees/saw himself$_i$'

(Marantz (1984:214))

(17) Sergio quiere [que *Daniel* hable a Tomás de *sí mismo*].
'Sergio wants Daniel$_i$ to talk to Tomás$_j$ about himself$_{i/*j/*k}$'

(18) a. Tuuma-p Suulut immi -nik uqaluttuup-paa
T. -ERG S. self -MOD tell -ind/tr,3s/3s
'Tuuma$_i$ told Suulut$_j$ about self$_{i/*j}$'

b. Piita immi-nut qungujup-puq
P.(ABS) self-DAT smile -ind/intr,3s
'Piita$_i$ smiled to himself$_i$'

(Bittner (1992:22))

The well-formedness of sentences (15) through (18) can be expressed in terms of a c-command condition, as in (19):

(19) An anaphor must be c-commanded by its antecedent.

In the ergative Inuktitut (16) and West Greenlandic (18), as in the accusative English (15) and Spanish (17), the A-argument asymmetrically c-commands the O-argument.[19] The conclusion here, then, is that A-, S-, T-, and D-arguments asymmetrically c-command any other argument or verbal adjunct in the clause at whatever interface level the binding conditions must be met.[20]

1.4.2 Control

Control of PRO, one of several constructions in which a DP (NP) in a subordinate clause is morphologically unrealised when co-referenced with a DP (NP) in the matrix clause, constitutes one example of what is frequently referred to in the literature (e.g., Anderson (1976), Dixon (1979,1994)) as Equi-NP deletion. PRO, as discussed in §1.1.2, is typically licensed for null Case by a non-finite T head (though see §2.3 for some qualifications). It follows that we should expect only those arguments licensed as nominative (by a finite T^0) to be able to appear as PRO in a corresponding non-finite

[19] This is considered in much further depth in Bobaljik (1992,1993), Campana (1992), Murasugi (1992), and Manning (1994), where a far wider range of data is examined. The reader is referred to these sources for further details. While I will argue against Bobaljik's structural correspondence of absolutive Case with accusative Case, I share his assumption, contra those other researchers and following Chomsky (1993 et seq.), that binding conditions hold only at LF. This assumption will be considered in significantly more detail in the subsequent chapters of this thesis.

[20] See *fn.*19.

clause, and this generally turns out to be the case. The sentences in (20) through (23) illustrate non-finite clauses in a variety of accusative languages:

(20) a. Michel$_i$ promised his constituents [PRO$_i$ to attack the soft cheese bill].
b. Preston$_i$ tried [PRO$_i$ not to cry].
c. Alexa$_i$ attempted [PRO$_i$ to leave].

(21) *French*
a. Jacques$_i$ veut [PRO$_i$ partir]
'Jacques wants to leave'
b. On a trouvé Jacques$_i$ en train de [PRO$_i$ pleurer].
'We found Jacques crying'

(22) *Chichewa* (Bantu: Malawi and surrounding areas))
Mw-aná w-ánu á-ma-zónd-á [ku-dyá onga].
1-child *1*-your *1*SUBJ-pres.-HAB-hate-ind. *15*-eat *14*gunpowder[21]
'Your child hates to eat gunpowder'
(Bresnan & Mchombo (1995:223))

(23) *Russian*
a. Ljuda$_i$ priexala [PRO$_i$ pokupat' maslo].
Lyuda came to-buy butter(ACC)
'Ljuda came to buy butter'

b. Sestra prosila ego$_i$ [PRO$_i$ peredat' pis'mo Ivanu].
sister asked him to-give letter to-Ivan
'My sister asked him to give the letter to Ivan'
(slightly adapted from Babby (1991:47))

c. Vanje$_i$ nravitsja [PRO$_i$ rabotat'].
Vanya-DAT likes to-work
'Vanya likes to work'
(slightly adapted from Bailyn (1991:87))

Depending on which structural Case is associated with T^0 (Infl) in a finite clause in an ergative language, whatever argument is licensed for that Case should typically be licensed for null Case (that is, it should appear as PRO) in a tenseless clause. For Bobaljik's (1993) analysis (see *fn*.19), then, the prediction is that the A-argument, licensed for ergative Case in transitive

[21] Numbers in the gloss mark nominal class and nominal class agreement.

finite clauses, should typically be licensed for null Case by a non-finite T^0.[22] On the other hand, analyses which take the absolutive Case of ergative languages to be the structural equivalent of nominative Case in accusative languages (recent generative research espousing such a view includes Johns (1987,1992), Campana (1992), Murasugi (1992), Bittner (1994), and Bittner & Hale (1996b)) would predict at least S- and T-arguments, both typically checked for absolutive Case in finite clauses, but not A-arguments, to be available for null case in non-finite clauses. But herein lies the problematic nature of using the distribution of PRO as a diagnostic in establishing Case relations in an ergative language. The fact is that it is very difficult to ascertain whether what appear to be non-finite clauses in most, if not all, ergative languages are, in fact, non-finite according to the narrow definition so far provided in this thesis, or, rather, subjunctive clauses or (gerundival) nominal forms.

1.4.3 Control in ergative languages

As it stands at the point of writing this paper, linguists' non-precise understanding of such clauses has led researchers to argue both ways in the debate. In the following, I will examine two such recent analyses – Murasugi's (1992) treatment of Lezgian "non-finites" and Bobaljik's (1992,1993) treatment of Inuit "non-finites" – and conclude that neither analysis is successful in its intent. The reason for this, I will suggest, is that

[22] See also Levin & Massam (1984), Massam (1985), Marantz (1991), Laka (1993b), and López & Austin (1995), among others, for a similar view.

the constructions which receive treatment as non-finite in both languages by these researchers are, in fact, finite.

Murasugi (1992) offers evidence from, among others, Lezgian (Nakho-Dagehestanian: eastern Caucasus; southern Daghestan, northern Azerbaijan) and Abkhaz (Caucasian: northwestern Caucasus; Georgia, Turkey) to show that both structural cases are available in non-finite clauses in some ergative languages. That both structural cases are available, she claims, suggests that such clauses are the ergative counterpart to the inflected non-finite clauses found in, say, European Portuguese (Murasugi (1992:111-112)).[23] Murasugi provides the Lezgian sentences shown here in (24) as evidence:

(24) a. didedi-z [ktab stold-a xa-na] k'an-zawa.
mother-DAT book(ABS) table-INESS be-nf want-imperf
'mother wants the book to be on the table'

b. [am taxsirly tusir-di] askara ja.
she(ABS) guilty be,Neg-nf clear be
'it is clear that she is not guilty'

c. didedi-z [gagadi ktab qacu-na] k'an-zawa.
mather-DAT boy(ERG) book(ABS) buy-nf want-imperf
'mother wants the boy to buy the book'
(adapted slightly from Murasugi (1992:113); attributed to Martin Haspelmath)

In (24a and b), where the verb in the embedded clause is intransitive (whether unaccusative or unergative is irrelevant for the present discussion, but for simplicity of argumental reference, I will assume it to be unaccusative

[23] See Raposo (1987), Murasugi (1992; esp. 89-95), and §2.3.3 of this thesis for further details on the relevant European Portuguese construction. In Chapter Two, I suggest subjunctive

in both cases), absolutive Case is available for the T-argument. In (24c), where the verb in the embedded clause is transitive, both structural Cases are available: ergative for the A-argument, and absolutive for the O-argument.

There are several reasons to doubt that the Lezgian examples given in (24) lend support to Murasugi's claim that absolutive and nominative Cases are structurally equivalent. First, Murasugi herself equates the Lezgian construction with the European Portuguese inflected non-finite clause in order to account for the availability of absolutive Case for the T-argument in (24a and b) and for the O-argument in (24c). If this type of analysis proves tenable, then the assumption that the verbs in the embedded clauses in the Lezgian sentences in (24) are strictly non-finite, in the sense discussed here and as Murasugi claims, becomes all the weaker. The onus of a theory like Murasugi's becomes the provision of strong evidence that these verbs *are* non-finite. In fact, there is fairly strong evidence to the contrary, which I will now briefly discuss.

Bobaljik (1993) suggests that the elements in question in (24) are of the *Masdar* class, or verbal nouns. Again, though, the evidence suggests this not to be the case, at least for the sentences in (24a and c). Let us first look at the relevant element in (24b), for which I conclude that Bobaljik's analysis

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features are present in this type of clause.

is correct, returning to the other two sentences. Murasugi glosses the embedded clause's verb in (24b) as (25):

(25) tusir-di
be,Neg-nf

Morphologically, (25) can be broken down further, on the basis of analysis found in Haspelmath (1993), as (26), for the moment leaving the final affix unglossed:

(26) tuš- ir- di
is.not- past- ??

(deriving the surface form *tusirdi* phonologically). In (26), *tuš*, the negative form of *ja/xa* 'be' (Haspelmath (1993:508)), is followed by the suffix *-ir*, which, according to Haspelmath (1993:128,558), derives past forms from negative non-past forms.[24] The exact nature of the final suffix, *-di*, is subject to some speculation, since the morpheme performs several functions in the language. Nevertheless, the fact that the Masdar may be inflected for (typically oblique) Case, combined with the form's common usage to express situations (which seems to fit well with the expressed meaning in (24b)),[25] leads me to posit that the final suffix in (26) is the oblique stem *-di*.

The embedded clauses in (24a and c) seem even less compatible with non-finite interpretations than does the one in (24b). The Lezgian examples in (24), it should be noted, all show instances of switch-reference with the

[24] Non-negative non-past forms are derived to past form via the suffix *-j*.

matrix 'subject'. When there is a controlled element in the embedded clause – that is, when the 'subject' of the complement clause is co-referenced with some element of the matrix clause – the verb in the embedded clause must appear in the *infinitive* form.[25] This is illustrated in (27) (from Haspelmath (1993: 297)):

(27) a. Nabisata-z [ktab k'el-iz] k'an-zawa.
Nabisat-DAT book(ABS) read-inf want-imperf
'Nabisat wants to read a book'

b. Nabisata-z [q^{h}üre-z] k'an-zawa.
Nabisat-DAT laugh-inf want-imperf
'Nabisat wants to laugh'

In (27a), the A-argument of the embedded clause's transitive verb is omitted, as is the S-argument of the embedded unergative verb in (27b). That both such arguments are licensed as PRO in the two sentences might be worthy of consideration, were it not for a couple of facts of Lezgian which must be noted. First, although Lezgian cannot be considered a freely *pro*-dropping language (Lezgian verbs do not show agreement with their arguments), the language has a strong tendency to omit pronominal arguments when they are recoverable from the context (see Haspelmath (1993:401-408)). Second, the *infinitive* in Lezgian is derived from the imperfective stem by the addition of the suffix *-z/-iz*. While the infinitive, unlike the Masdar, may not be inflected like a noun, neither, as Bobaljik (1993:63) observes, is there a single "non-finite" form in Lezgian. Rather, forms (including the participles, the converbs (used in subordinate clauses),

[25] Further discussion may be found in Haspelmath (1993:128,153ff).

the Masdar, *and* the infinitive) range across the tense/aspect categories in the language. One use of the infinitive, according to Haspelmath's grammar (1993:156,157), is in place of the imperfective in subordinate clauses (the *imperfective converb*), and I assume this to be the role that the form is playing in (27). In this, I conclude that the omitted A-argument in (27a) and the omitted S-argument in (27b) are *pro*s, rather than PROs, and that the verb form in question, typically referred to as the *infinitive*, is not tenseless at all.

This is contrary to the view taken in Manning (1994), who uses the *Lezgian infinitive as tenseless* assumption to argue against a *P&P* approach to the facts of Lezgian. However, Manning's assumption seems highly suspicious, given that he also adopts the view held here, following Haspelmath, that the form of the verb in the embedded clauses in the switch-reference example in (24a and c) is the *aorist converb*. Both the aorist converb and the imperfective converb (infinitive) are formed by the affixation of an invariant suffix: *-na*, attached to the aorist stem, and *-z/-iz*, attached to the imperfective stem, respectively. Both also appear only in complement clauses to certain verbs. Given the discussion above, together with the extensive treatment of the constructions found in Haspelmath (1993), I can think of no strong reason to treat one form (the aorist converb) as tensed, and the other form (the imperfective converb) as tenseless, as Manning (1994) suggests.

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[26] Here, I consider only cases of 'subject' control.

I therefore follow Bobaljik (1993) in concluding that the status of the verb in the embedded clauses in (24) is not "tenseless", as Murasugi (1993) suggests. Further, on the basis of the extended discussion above, I suggest that there is *no* strictly non-finite verb form in Lezgian. This is an interesting conclusion at any rate, and one that will come up again later on.

Bobaljik's (1993) analysis proceeds to consider the Inuktitut and West Greenlandic mood marker *-(l)lu*, and concludes that it is a non-finite form.[27] If this idea turns out to be sustainable, the obvious prediction for Bobaljik is that ergative Case should be unavailable in Inuit clauses containing the *-llu* construction. However, I will argue that this is the wrong conclusion, just as was Musasugi's (1992) as to the status of the Lezgian verb forms in (24).

First, it is worth considering the distribution of *-llu* in Inuit – at least the two environments that Bobaljik discusses: *-llu* can appear in clausal complements of the verb *promise* (28) and in certain gerundive clauses (29):[28,29]

(28) *West Greenlandic*

a. miiqqat [qiti-ssa-llu-tik] niriursui-pp-ut
children(ABS) dance-fut-LLU-4p promise-ind-3p
'the children promised to dance'

(Bittner (1994:7))

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[27] For convenience, I will refer to both Inuktitut and West Greenlandic as *Inuit* for the current discussion.

[28] *-(l)lu* has been referred to as (at least) the *contemporative* (Bergsland (1955), Fortescue (1984)), the *gerundial* (Bok-Bennema (1991)), and the *infinitive* (Bobaljik (1992,1993)).

[29] It is important to note that transitive verbs in Inuit typically, aside from the construction being presently discussed, show agreement with both their internal (absolutive) and external (ergative) argument.

b. [aggi-ssa-llu-tit] niriursui-v-utit
come-fut-LLU-2s promise-ind-2s
'you (s) promised to come'
(Campana (1992) and Murasugi (1992); attributed to Maria Bittner)

c. miiqqat [Juuna ikiu-ssa-llu-gu] niriursui-pp-ut
children(ABS) Juuna(ABS) help-fut-LLU-3s promise-ind-3p
'the children promised to help Juuna'
(Bittner (1994:6))

d. [miiqqat ikiu-ssa-llu-git] niriursui-v-utit
children(ABS) help-fut-LLU-3p promise-ind-2s
'you (s) promised to help the children'

(29) *West Greenlandic*

a. [niviarsiaq sikkar-lu-ni] kiina-nngu-a nui-ratannguar-p-uq
girl(ABS) giggle-LLU-4s face-little-3s appear-at.last-ind-3s
'the girl giggling, her little face appeared at last'

b. [qaammaššuaq uqaluaaartuannguar-lu-ni] niri-lir-p-ut
moon.man(ABS) tell.stories.continue-LLU-4s eat-start-ind-3p
'the moon man continuing to tell stories, they started to eat'

c. anguti-rujug-Suaq [aavir-Suaq uniar-lu-gu] tiki-lir-s-uq
man-very-big(ABS) walrus-big(ABS) trail-LLU-3s come-begin-prt-3s
'... the man who began to come trailing the big walrus...'
(Bobaljik (1993:14); attributed to Bergsland (1955))

The sentences in (28a and b) and (29a and b) contain intransitives in embedded control and gerundive constructions, respectively. As expected for Bobaljik, the *pro* S-argument in (28a) and the T-argument in (28b) – and likewise for (29a) and (29b), respectively – trigger (absolutive) agreement on the verb. That the transitive verbs in the embedded clauses in (28c and d) and (29c) lack agreement with the non-overt A-argument also follows for Bobaljik, since his analysis suggests that A-arguments in ergative languages, as in accusative languages, are checked for Case by a feature property of T^0. If the respective T heads in the clauses in question in the Inuit sentences in (28) and (29) are [–finite], as Bobaljik argues, then his analysis of *ergative as*

nominative/absolutive as accusative is quite strong. A-arguments in Inuit non-finite clauses, accordingly, should only be licensed as PROs. Again, however, there are several factors which raise doubt as to the non-finite status of the verb ending *-llu*. Foremost among these is the fact that numerous grammatical examples can be found in which the A-argument *can* appear overtly, licensed for ergative Case, in the so-called '*-llu* clauses'. Consider the sentences in (30):

(30) *West Greenlandic*

a. [Juuna-p arna-t taku-llu-git] qungujup-p-uq
J. -ERG woman-pl(ABS) see-LLU-3p smile-ind-intr,3s
'Juuna$_i$ seeing the woman, he$_i$ smiled'
(Bittner (1994:177))

b. [Piita-p miiqqa-t taku-llu-git] qungujup-p-uq
P. -ERG child-p(ABS) see-LLU-3p smile-ind-intr,3s
'Piita$_i$ seeing the children, he$_i$ smiled'
(Bittner (1994:113))

c. [arna-p atisassat irrur-lu-git] irinarsur-p-uq
woman-ERG clothes(ABS) wash-LLU-3p sing -ind-intr,3s
'the woman$_i$ washing the clothes, she$_i$ sang'
(Manning (1994:111))

d. [Kunu-up ilaga-lu-git] aullar-p-uq
K. -ERG be.together-LLU-3p go.out-ind-3s
'Kunuk being together with them, (he) went out'
(Bergsland (1955:58); gloss slightly adapted from Campana (1992:79))

Observation of the sentences in (30) shows that, while ergative Case is available for A-arguments in *-llu* clauses – providing evidence that the A-arguments in the *-llu* clauses in (28c and d) and (29c) are *pro*s, rather than PROs –, these arguments do not trigger verbal agreement, as is standard in other Inuit transitive constructions. Compare, for example, the sentences in

(31), where verbal agreement with both the ergative (external) and absolutive (internal) argument obtains:

(31) a. *Inuktitut* (Central Arctic)
Jaani-up tuktu taku-**vaa**
J. -ERG caribou(ABS) see-ind,3s/3s
'Jaani sees the caribou'
(Johnson (1980:17))

b. *Inuktitut* (Qairnirmiut dialect: Baker Lake area)
taku-**vara** nanuq kapi-**jait**
see-ind,1s/3s polar.bear(ABS) stab-prt,2s/3s
'I see/saw the polar bear (that) you stabbed'
(Johns (1987:109))

c. *West Greenlandic*
Juuna-p miqqat paasi-**vai**
J. -ERG children(ABS) understand-ind,3s/3p
'Juuna understands children'
(Bittner (1994:133))

What this illustrates is just that *-llu* appears to absorb (check) agreement (ϕ-) features; not that the verb ending is, in any sense, non-finite. As both Campana (1992) and Murasugi (1992) observe, ergative agreement in *-llu* clauses is not necessary, since the A-, S-, and T-argument in these clauses is obliged to be co-referenced with the 'subject' of the matrix clause.[30]

Second, Fortescue (1984:297) mentions that first and second person plural ergative agreement is occasionally available with third person

[30] The sentence in (29b) might be seen as providing counterevidence to this claim. However, Fortescue (1984) suggests that *-llu* can be used not only when a lower 'subject' is co-referential with a higher one, but also when it "overlaps in reference" with it, and Campana (1992) suggests that *moon man*, the S-argument of the *-llu* clause in (29b), must be included within the reference of *they*, the S-argument of the superordinate verb. I thank Mark Campana for further discussion and clarification on this point. That said, I am not providing anything of an explanation of these facts here. As Jonathan Bobaljik (personal communication) points out, absolutive S-arguments in these clauses (see, for example, the sentences in (28a and b) and (29a and b)) are also obliged to be co-referent with a higher

absolutive agreement in transitive *-llu* clauses. Bobaljik cites a personal communication from Michael Fortescue, suggesting that these cases "are late, analogical forms and are not generally accepted in the standard literary literature" (Bobaljik (1993:65,*fn*.17)). Nevertheless, double agreement in such clauses has been cited as perfectly grammatical at least as early as Bergsland's (1955) reporting of his West Greenlandic fieldwork. Schultz-Lorentzen (1945:102), too, cites certain double agreement cases to be perfectly acceptable. Provided in (32) is the agreement paradigm Bergsland offers for the *-llu* ending in West Greenlandic (slightly adapted from Bergsland (1955:57)):

(32) a. **Intransitives:**

	singular	dual	plural
1ABS	-llungu	-llunuk	-lluta
2ABS	-llutit	-llutik	-llusi
4ABS	-lluni	-llutik	

b. **Transitives:**

	3sABS	3dABS	3pABS
	-llugu	-llugik	-llugit
1pERG	-llutigu	-llutigik	
2pERG	-llusiyuk	-llusigik [31]	

The fact that the verb can show agreement with the ergative (A-) argument only when it occurs in a non-third person/non-singular form is, by all accounts, unexplained. While I attempt no explanation of this

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'subject', yet they obligatorily show verbal agreement. Bobaljik (1993) has an account of this fact, which I – and Campana (1992) and Murasugi (1992) – lack.

[31] Jonathan Bobaljik (personal communication) makes the observation that the *-ti-/-si-* morpheme in the transitives looks suspiciously like the antipassive. It is an intriguing suggestion, and, if correct, its general implication would be that these forms do not represent counterevidence to Bobaljik's (1993) analysis (though a great number of curiosities about the forms still arise, such as why the forms are only available with 3rd person 'objects'). Nevertheless, this seems to me a promising avenue of exploratory research, though one that will not be travelled here.

distribution, I will assume that the possibility of double agreement, taken together with the other facets of the construction discussed, is further suggestive that the Inuit *-llu* clauses are not non-finite.

Third, in some, if not most, of the Inuktitut languages, including at least Labrador Inuttut, the Arctic Québec dialects, and the dialects of the eastern Northwest Territories (including Baffin Island), *-llu* (albeit still always dependent upon the tense of the superordinate verb) has two forms:[32] one form (*-lu*) denoting non-future action, and the other (*-tsu*) denoting future action.[33] Compare the forms of *-llu* in (33a) and (34a), where the action takes place in the present/past, versus (33b) and (34b), where the denoted action takes place in the future (all taken from Dorais (1988:65-66); glosses added):

(33) *Inuktitut* (Arctic Québec)

a. [niri-**tsu**-ni] pisut-t-uq
eat- **LLU.nonfut**-4s walk-prt-3s
'(while) eating, (s)he walks/walked'

b. [niri-**lu**-ni] pisu-langa-j-uq
eat- **LLU.fut**-4s walk-near.fut-prt-3s
'(while) eating, (s)he will walk'

(34) *Inuktitut* (Arctic Québec)

a. [taku-**tsu**-gu] tusa-laur-t-ara
see- **LLU.nonfut**-3s hear-rp-prt-1s/3s
'(while) seeing her/him/it, I heard her/him/it'

b. [taku-**lu**-gu] tusa-laar-t-ara
see- **LLU.fut**-3s hear-distant.fut-prt-1s/3s
'(while) seeing her/him/it, I will hear her/him/it'

[32] I thank Alana Johns (personal communication) for bringing this to my attention.
[33] Forms given are those of the Arctic Québec Inuktitut dialects.

Similarly, two forms are available in, for example, the Iglulik dialect (Inuktitut: extreme northeast corner of mainland Northwest Territories), as shown by the contrast between the non-future *-llu* clauses in (35a and b) and the future (35c):

(35) a. [ani-**llu**-ni] qungat-t-uq
leave-**LLU.nonfut**-4s smile-prt-3s
'leaving, (s)he smiles'

b. [ani-**llu**-ni] qunga-lauq-t-uq
leave-**LLU.nonfut**-4s smile-pst-prt-3s
'leaving, (s)he smiled'

c. [ani-**lu**-ni] qunga-laaq-t-uq
leave-**LLU.fut**-4s smile-fut-prt-3s
'leaving, (s)he will smile'

(Mallon (1993:31-32); glosses added)

In the preceding section, I have examined certain facets of Inuit *-llu* constructions across a number of Inuit languages. The evidence, I have shown, is rather compelling against an analysis of *-llu* as a non-finite form, as argued for in Bobaljik (1992,1993). Further, the discussion which immediately preceded the consideration of Inuit *-llu* clauses reached much the same conclusion for a certain type of clause in Lezgian: namely, that the Lezgian '*-na* clauses' and '*-di* clauses' which receive a non-finite treatment in Murasugi (1992) are, in fact, finite clauses.

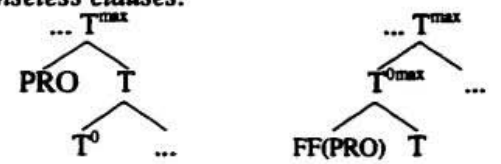
This, of course, brings us back to the underlying inquiry of this section: Can the non-finite be utilised as a diagnostic in determining the structural Case-checking relations in ergative languages? If nothing else, the preceding

discussion has illustrated the difficulty in finding a strictly non-finite clause in such a language. Nevertheless, I will now turn to a construction found in the ergative Mayan (Penutian: present-day Guatemala, southern México, and small areas of Belize and Honduras) languages which does appear to be non-finite. The unavailability of overt S- or T-arguments in this construction suggests a positive answer to the question posed above, and the evidence from the Mayan languages shows that the absolutive Case of ergative languages is associated with the Case-checking feature properties of the head T. To review, if absolutive Case is checked by some feature property of T^0, the prediction is that absolutive Case should be unavailable in non-finite clauses, as is schematically illustrated in (36):

(36) a. *Tensed clauses:*

$F_{+finite}(T)$ checks $F_{ABS}(DP)$ in its checking domain

b. *Tenseless clauses:*



$F_{-finite}(T)$ checks $F_{Null}(PRO)$ in its checking domain

In the following, for reasons of space, I will restrict my attention to facts observed in the Mayan language Jacaltec, spoken in the Huehuetenango Department of northwestern Guatemala.

1.4.3.1 Mayan non-finite clauses

In Jacaltec, both 'subject' and 'object' control structures are possible in those clauses which I will determine to be non-finite. As expected, motion and location verbs dominate 'subject' control structures, while causative matrix verbs take 'object' control complement clauses. Intransitive examples of the former type of clause are provided in (37), and of the latter type in (38):

(37) a. xc-ach to [sajch-oj]
asp-2sABS go play-inf
'you(s) went to play'

b. ch-in oc [way-oj]
asp-1sABS enter sleep-inf
'I am entering sleep' / 'I am falling asleep'

(Craig (1977:311,244))

(38) a. ch-ach hin-cuytze [sajch-oj]
asp-2sABS 1sERG-teach play-inf
'I am teaching you(s) how to play'

b. ch-oŋ s-chej ya' [way-oj]
asp-1pABS 3sERG-order cl/3s(older person) sleep-inf
'(s)he orders us to sleep'

(Craig (1977:317))

In the (37) and (38) sentences, the verb shows no agreement and takes the suffix *-oj*, which I assume to be the infinitive ending.[34,35] If the complement

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[34] As in Inuktitut and West Greenlandic, Mayan (transitive) verbs canonically show agreement with both their external (ergative) and internal (absolutive) argument.

[35] A further construction is available in Jacaltec to express roughly the same meaning as is expressed in (38b). Compare the example in (i):

(i) ch-oŋ s-chej ya' cu-wayi
asp-1pABS 3sERG-order cl/3s(older person) 1pERG-sleep
'(s)he orders us to sleep'

(Craig (1977:317))

Following Murasugi (1992:107-108), I will analyse the indicated construction in (i) as a nominal gerund, rather than as a sentential complement. My reason for this analysis comes

clauses in (37) - (38) are non-finite, as I am arguing, then the total absence of

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principally from the distribution facts of the construction. A fact which has not, to my knowledge, received attention in the literature, is that the construction is available as an alternative to the non-finite clause only when the matrix verb is transitive. Observe the ungrammaticality of (ii) versus the acceptability of (37a), where the matrix verb is intransitive (unaccusative):

(ii) * xc-ach to ha-sajchi
asp-2sABS go 2sERG-play

(Craig (1977:311))

This is contrasted with the availability of both options when the matrix verb is transitive, as in (iii):

(iii) a. xc-ach w-iptze sajch-oj
asp-2sABS 1sERG-force play-inf
'I forced you(s) to play'

b. xc-ach w-iptze ha-sajchi
asp-2sABS 1sERG-force 2sERG-play
'I forced you(s) to play'

(slightly revised from Craig (1977:312))

Since all cases of 'object' control structures involve a transitive matrix verb, the type of complement illustrated in (iii.b) is always available in these types of sentences. More telling are the 'subject' control complements of transitive matrix verbs, where the non-finite clausal complement is unavailable as an option. Consider the sentences in (iv), where the matrix transitive cannot take a non-finite clause as its complement (as glossed by Craig):

(iv) a. *w-ohtaj cheml-oj
1sERG-know weave-inf

b. w-ohtaj hin-chemli
1sERG-know 1sERG-weave
'I know how to weave'

(Craig (1977:312))

Note, first, that the possessive markers are morphologically identical to the ergative agreement markers in person and number in Jacaltec. The sentence in (iv.a) is ruled out, I will assume, by an unchecked (absolutive) Case-feature in the matrix clause which can be checked by the possessive construction *hin-chemli* 'my weaving' in (iv.b). The impossibility of (ii) is straightforwardly explained if the verbal complement, *ha-sajchi*, is analysed as a possessed gerund ('your(s) playing'), by the unavailability of a Case-checking mechanism (the only verb in the construction being the unaccusative *to* 'go'). Given this, I more carefully gloss the sentences in, for example, (i) and (iv.b) as in (v.a) and (v.b), respectively:

(v) a. ch-oŋ s-chej ya' cu-wayi
asp-1pABS 3sERG-order cl/3s(older person) 1pGEN-sleeping
'(s)he orders us our sleeping' / '(s)he orders us to sleep'

b. Ø-w-ohtaj hin-chemli
3sABS-1sERG-know 1sGEN-weaving
'I know my weaving' / 'I know how to weave'

verbal agreement with the S-argument in the intransitive (unergative) complement clauses is expected if the S-argument is checked for Case by a feature of T^0 – absolutive Case by a [+finite] T^0 and null Case by a [–finite] T^0. The non-overt S-arguments of the embedded clauses in (37) - (38) are, under this account, licensed as PROs.

While this works out fairly clearly in the intransitive complement clauses (though see *fn.35*), the issue becomes somewhat more complex in the case of transitive non-finites. Given the analysis sketched out above, we expect ergative, but not absolutive, Case to be available in these clauses. According to Craig (1977), however, the internal (O-) argument is always morphologically realised in such clauses. Consider the sentences in (39), which appear to run counter to the predictions of the above analysis:

(39) *Jacaltec*

a. ch-in to [il-o' kiŋ]
asp-2sABS go see-?? fiesta
'I am going to see (the) fiesta'

b. [lok-o' ixim] x-Ø-w-u txoŋbal
buy-?? corn asp-3sABS-1sERG-do market
'Buying corn is what I'm doing in the market'
(Craig (1977:245); gloss in (b) based on Campana (1992:71))

c. x-Ø-'oc naj [il-o' sajach]
asp-3sABS-begin cl/3ms see-?? game
'He began to see/to watch (the) game'
(Day (1973:87); gloss added)

The verbal ending which I have glossed as *??* in the above sentences is glossed as *future* by Murasugi (1992), based on treatment found in Craig (1977). Murasugi's conclusion, after examining such clauses in several

Mayan languages (Jacaltec, Mam, and Tzutujil), is that transitive non-finite complement clauses are disallowed in Mayan. While I will conclude, with Murasugi, that structural ergative Case is checked by a feature property of $\underline{v}^0$ (her Tr(ansitivity)^0), I will argue that the *-o'* suffix found in the lower clauses in (39) *is* a non-finite ending. That is, I will argue that transitive non-finite clauses in Jacaltec *are* possible, though they are subject to some rather telling restrictions that lend support to our common conclusion.

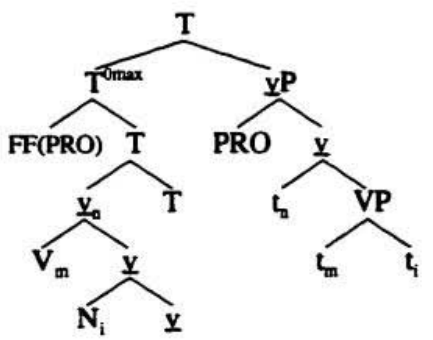
Craig (1977) observes two crucial aspects to the complement clauses in (39). First, the internal argument must be immediately followed by the *verb stem + ending*. Second, the verbal complement must be a bare, unmodified noun with no noun classifier. I take this as evidence that the internal argument in these clauses checks the Case-feature of $\underline{v}^0$ before the external argument is inserted into the derivation. I will assume that the ergative Case-feature of $\underline{v}^0$ is strong in Jacaltec – an assumption which I will strengthen in Chapter Three. If this is so, then any external argument merged with $\underline{v}^0$ in Jacaltec should be checked for Case by $\underline{v}^0$ unless that head's Case-feature is checked before insertion of the external argument takes place.[36] The proposal is not altogether obvious, and requires some discussion.

Consider first the impossible alternative, where the internal argument is inserted with an ergative Case-feature, but is not a bare noun. The feature

[36] Chomsky (1995) argues against the possibility of Case-checking taking place between $\underline{v}^0$ and an external argument inserted in [Spec,$\underline{v}$]. I argue that such checking can take place, if the Case-feature of $\underline{v}^0$ is strong, and I discuss the issue in more depth in Chapter Three.

is attracted by the strong (ergative) Case-feature of $\underline{v}^0$ when that head is projected, and the internal argument raises overtly to [Spec,$\underline{v}$]. [Spec,$\underline{v}$] is, I suppose, inherently a θ-position of the predicate, so this derivation can be ruled out as a violation of the verb's θ-structure. The other possibility, which derives the grammatical sentences in (39), involves a bare noun being inserted as the verb's internal argument, bearing an ergative Case-feature. The strong ergative Case-feature of $\underline{v}^0$ attracts the argument when $\underline{v}$ is projected, and the argument, being a bare noun, incorporates into $\underline{v}^0$, its Case-feature being checked. The head V then raises to $\underline{v}^{0max}$, and the external argument is generated in [Spec,$\underline{v}$]. As in unergative structures, this results in the unavailability of ergative Case for the external argument, so the external arguments of the lower clauses in (39) can be inserted with the null Case-feature which can be checked by [–finite] T^0. Subsequent overt head-to-head movement of the verb at least as high as T^0, reflecting the canonical VSO word order of the language, and the covert raising of the formal features of the external argument to adjoin to T^{0max} to check Case, creates the complex T^{0max} represented in (40):

(40)



The correct word order is thus derived, and the relevant feature of the external argument – PRO – is in a legitimate position to be controlled from the matrix clause.

More difficult to account for are the transitive non-finite clauses which apparently show verbal agreement with both their external (ergative) and internal (absolutive) argument, as the sentences in (41) illustrate:[37]

(41) a. x-Ø-(y)-iptze naj ix [hin s-col-o']
asp-3sABS-3sERG-force cl/3ms cl/3fs 1sABS 3sERG-help-inf
'he forced her to help me'

b. ch-in to [hach hin-col-o']
asp-1sABS go 2sABS 1sERG-help-inf
'I am going to help you(s)'

c. ch-in s-chej naj [hin-col-o' ix]
asp-1sERG 3sABS -order cl/3ms 1sERG-help-inf cl/3fs
'he orders me to help her'

(Craig (1977:321,320,242))

Interesting to note, however, is the distribution of arguments in simple (finite) clauses having, as their main verb, *col* 'help'. As Day (1973:42) points out, most transitives in Jacaltec can take the ending *-wa*, which signals that the complement object has been incorporated into the verb. Verbs bearing this suffix are understood as being transitive, but cannot select an internal

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[37] As far as I am able to determine, the set of predicates which appear in non-finite controlled clauses with double agreement in Jacaltec is extremely restricted, perhaps consisting solely of the verb *col* 'help'. Thus a verb like *tzab* 'grab' can never take the *-o'* non-finite ending. When such verbs do appear in control structures, they are expressed via a number of mechanisms, most notably through the (nominal) gerund construction discussed in *fn*.35. Observe the sentence in (i), taken from Craig (1977:321); gloss modified):

(i) ch-oŋ s-chej ya' hach cu-tzaba an
asp-1pABS 3sERG-order cl/3s(older person) 2sABS 1pGEN-grabbing 1p
'(s)he orders us our grabbing you(s)' / '(s)he orders us to grab you(s)'

argument. Consider the sentences in (42) - (43), where the transitive verb *il* 'see' is able to take an overt or *pro* complement is (42), but is disallowed from doing so in (43):

(42) a. x-Ø-w-il naj
asp-3sABS-1sERG-see cl/3ms
'I saw him'

(Day (1973:64))

b. ch-ach w-ila
asp-2sABS 1sERG-see
'I see you(s)'

(Craig (1977:121))

(43) a. ch-ach il-wa
asp-2sABS see-WA
'you(s) see something'

b. * ch-ach il-wa ánma / * ch-ach il-wa naj
asp-2sABS see-WA people / asp-2sABS see-WA naj

c. * ch-ach w-il-wa
asp-2sABS 1sERG-see-WA

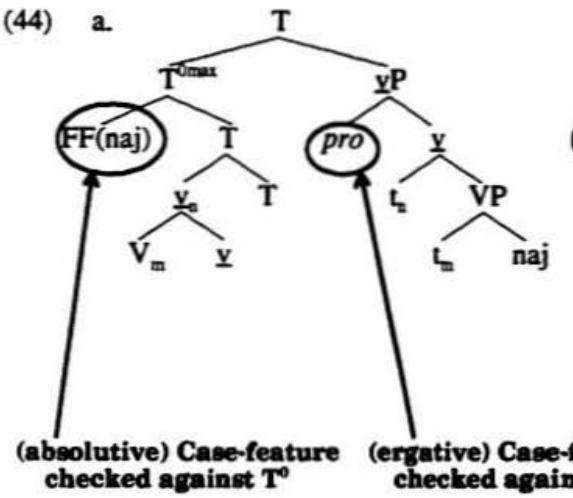
(simplified from Day (1977:42))

The ungrammaticality of (43b) shows that *-wa* verbs cannot take a direct complement, and (43c) illustrates that structural ergative Case is unavailable with *-wa*.

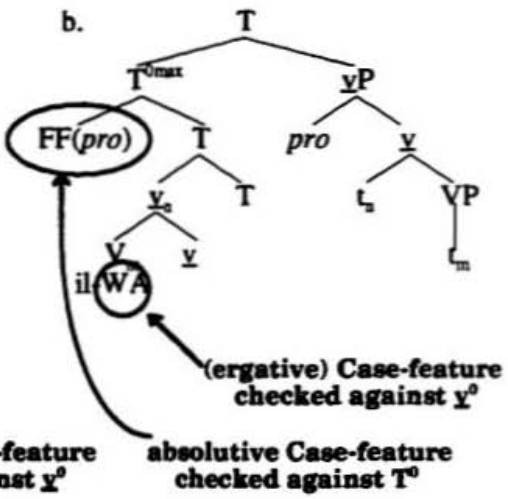
In (42a), the (ergative) Case-feature of the external argument in [Spec,v] is checked by $\underline{v}^0$. The only structural Case left, absolutive – associated with T^0 –, can be checked covertly via raising of the formal features of the internal argument to adjoin to T^{0max} at LF. But, as the sentences in (43) demonstrate, ergative Case is unavailable for the external argument when the verb takes the suffix *-wa*.

I will propose that *-wa* has, amongst its properties, an ergative Case feature, and that it is lexically attached to the verb as its internal argument. The impossibility of ergative Case-checking for the external argument in the sentence in (43a) is thus accounted for, since V^0 – carrying *-wa* – enters into a legitimate checking relation with $\underline{v}^0$ prior to the external argument's insertion into the clause. The suffix *-wa*, it follows, essentially antipassivises the verb. The external argument, it follows, must be inserted bearing an absolutive Case-feature which can be checked by [+finite] T^0. Partial representations of the derivations which I propose for the sentences in (42a) and (43a), then, are provided in (44a) and (44b), respectively:

(44) a.



b.



Consider now the sentence in (45), where, at first approximation, the distribution of Case appears identical to what we saw in the (42) sentences (that is, ergative Case for the external argument, and absolutive Case for the internal argument):

(45) ch-oŋ s-col naj
asp-1pABS 3sERG-help cl/3ms
'he helps me'

(Craig (1977:108))

I will return to an analysis of the sentence above, first turning to an examination of those cases where *col* 'help' takes the *-wa* ending. The facts presented by these clauses, I will argue, illustrate that the sentence in (45) cannot be analysed along the lines proposed for the transitive clauses in (42) above. As in the sentences in (43), the sentences in (46) below show that structural ergative Case is unavailable for any of the syntactic arguments when *col* takes the lexically compounded *-wa* ending:

(46) a. ch-ach col-wa y-iŋ nay
asp-2sABS help-WA 3sOBL-to cl/3ms
'you(s) help him'

b. x-Ø-col-wa ix w-iŋ
asp-3sABS-help-WA cl/3fs 1sOBL-to
'she helped me'

(Craig (1977:116,102))

Important to note, however, is the fact that the internal argument must still be expressed, though by means of a prepositional phrase.[38] The facts of (46) are at least partially accounted for under the previous analysis, since the

[38] It should be noted that *-wa* verbs such as the one in (43a) are able to take an optional adjunct phrase, as shown in (i) (based on information in Day (1973) and Craig (1977)):

(i) ch-ach il-wa (y-ul te' ŋah)
asp-2sABS see-WA 3sOBL-in the house
'you(s) see something (in the house)'

What is important to note is that these verbs, while lexically transitive, can never take an O-argument complement.

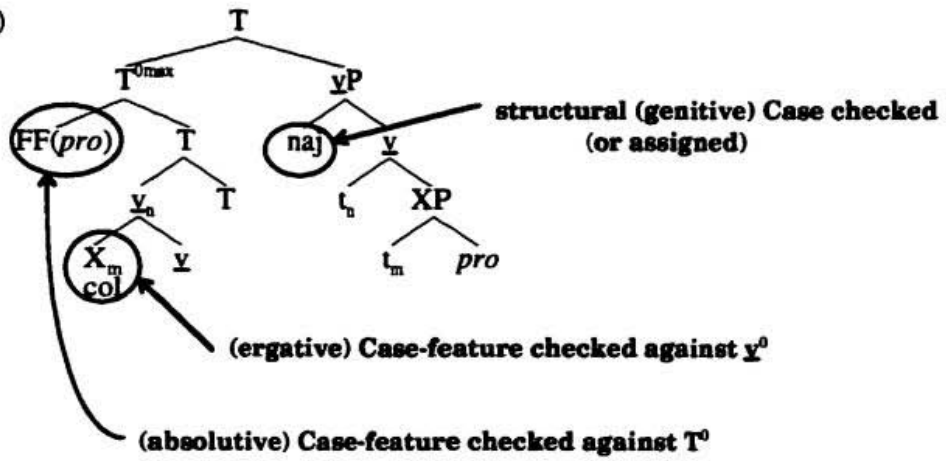
unavailability of ergative Case for the external argument follows as it did above.

The obligatory nature of the prepositional complement might suggest that *col* takes two internal arguments, though such an analysis would run into difficulties in accounting for the acceptability of the sentence in (45), where only the two structural Cases appear to be available. What I propose instead is that *col* is a lexically-compounded [V+N] form. That is, I propose that *col* is a head with both verbal and nominal features. In the case of the *colwa* form, *-wa* replaces the compounded nominal, and the head lacks these nominal features. The apparent unavailability of ergative Case is thus explained, since [V -wa] checks the feature of $\underline{v}^0$. The predicate, however, still takes an obligatory syntactic complement, which can only get its Case prepositionally, the external argument's Case being checked (covertly) against T^0.

This buys me an alternative account of the derivation which results in the well-formed sentence in (45). The lexically-compounded *col*, carrying both the verbal features and nominal (including Case) features of both its constituents, raises to adjoin to $\underline{v}^0$ and checks its Case-feature. Ergative Case is thus unavailable for either of the predicate's phrasal arguments. Insertion of the external argument in [Spec,$\underline{v}$] places that argument in exactly the canonical genitive Case structural relation with the head *col*, which, recall, has nominal properties. The external argument checked for (or assigned)

genitive Case, the Case-feature of the verbal complement is free to adjoin to T^{0max} at LF to be checked. Recall from above (see *fn.35*), too, that, in Jacaltec Mayan, the ergative and genitive Cases are phonologically realised identically. Superficially, then, the derivations resulting in the sentences shown in (42a) and (45) appear to proceed identically, though, in fact, they are quite different. The proposed derivation of (45) is partially represented in (47) (where, for convenience, the head *col* is labeled as X):

(47)



I now return to the sentences in (41), and show that the analysis just sketched out can be extended to allow me to maintain that the subordinate clauses found there are non-finite. I repeat the sentence found in (41b) as (48) here (gloss slightly revised in light of the preceding developments):

(48) ch-in to [hach hin-col-o']
asp-1sABS go 2sABS 1sGEN-help-inf
'I am going to help you(s)'

The initial concern with an analysis of the complement clause in (48) as non-finite must surely be the fact that the internal argument shows overt

agreement with the verb, although it is presumedly checked for null Case by [–finite] T^0.[39] Nevertheless, as the expressed meaning of the clause clearly demonstrates, the internal argument is not controlled from the matrix clause, even though it dominates all other arguments within its (non-finite) clause. This, notably, is a situation which never arises in canonically accusative languages, where O-arguments are always checked for Case in a lower position than are A-arguments.

The fact that PRO is not licensed by [–finite] T^0 in the lower clause in (48) becomes less mysterious if we proceed from the assumption that PRO must be anaphoric. While this is obviously not an uncontroversial assumption, some trends in the recent literature have suggested the idea to be tenable. While a suitable treatment of this idea is clearly beyond the scope of this thesis, it is worth considering at least one case where PRO doesn't appear to have an antecedent. Consider the type of construction exemplified in (49), which has frequently been forwarded as evidence that PRO need not be anaphoric:

(49) a. It is fun [PRO to attend weddings].
b. It would be interesting [PRO to know where this thesis is heading].

Postal (1970), however, observed that the sentence in, say, (49a) cannot mean that it is fun for one person if another person attends weddings. Building on Postal's observation, both Epstein (1984) and Koster (1984) have suggested

[39] Further, in (41c), we see that the pronominal complement of the lower verb is morphologically realised.

that the matrix predicate in such sentences takes an implicit (experiencer) argument, and that this argument serves as the antecedent of the PRO in the lower clause. While I will not enter into a discussion of the specifics of their, or like, analyses, I will adopt the position that PRO requires an antecedent – that is, that PRO is always anaphoric.[40]

The derivation proposed for the tenseless lower clause in (48) is virtually identical to the one proposed in (47) for the tensed clause in (45). The only difference lies in the Case checked by T^0; absolutive Case by the [+finite] T^0 in (45), and null Case by the [–finite] T^0 in (48). The relevant question, then, is just this: Why is PRO not licensed in the subordinate non-finite clause in (48)? But, in fact, the query has already been answered, since the licensed argument in question is not anaphoric. The conclusion is that the (perhaps poorly named) null Case-feature of [–finite] T^0 in control structures licenses an anaphoric argument as PRO, and a non-anaphoric argument as an overt XP.[41] Notice that such a conclusion does not lose its explanatory force when applied to the accusative languages: Economy considerations to be discussed in Chapter Three rule out the possibility of an

[40] A position which, to be sure, cannot be empirically justified in a work such as this. The reader is referred to, for example, Vanden Wyngaerd (1994), which, in the present author's view, presents convincing evidence in support of this assumption.

[41] Implicit to this analysis is the adoption of Martin's (1995 [1992]) proposal that the feature content of T^0 in control structures is different from that of T^0 in raising/ECM constructions. I suggest this in the vaguest sense possible here. Further consideration of Martin's theory, and adoption of it in a more articulated form, is found in Chapter Two. Roughly speaking, in the terms found there, T^0 in the subordinate non-finite clause in (48) in the text is specified for [–finite/+tense] features, and, as such, checks null Case.

O-argument being checked for Case by T^0 in an accusative language, so the relevance of the conclusion never arises.[42]

Suppose now that the argument licensed for Case by T^0 in control structures must c-command all other arguments within its clause. This might be attributable to the inherent temporal dependency property of control structures, such that the argument checked by 'dependent' T^0 in such clauses must *event-bind* all other arguments and adjuncts within its clause. Again, such a proposal gives us few insights into control structures in the accusative languages, since the argument checked for Case by T^0 in such languages *always* asymmetrically c-commands all other arguments in its clause at LF (see Chapter Two).[43] However, I will show in Chapter Three that O-arguments in ergative languages, typically checked for Case by T^0, do *not* (typically) c-command all other arguments in their clauses. That is, I will show that the checking of an ergative Case-feature against $\underline{v}^0$ creates a new feature on the category checked by $\underline{v}^0$ if that category is a full XP. Further, any element carrying this newly created feature is forced to raise to C^0 – either covertly or overty (covertly, in the case of Jacaltec) –, and is able to bind from this position.

The scarcity of non-finite transitive control structures in ergative languages now becomes far less mysterious: They can only obtain if the

[42] Somewhat paradoxically, if T^0 checks a non-anaphoric argument in a control structure in an accusative language, it is not a control structure.
[43] I will also propose a significantly revised version of *event*-binding in Chapter Two.

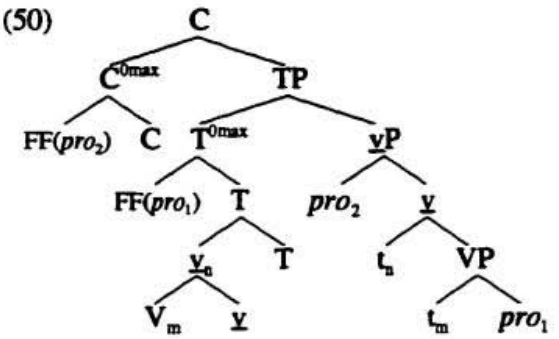
argument checked for Case by T^0 dominates all other arguments in the clause, which it typically does not do. Jacaltec, it seems, has at least two strategies for making non-finite transitive control structures possible. The first, exemplified by the sentences in (39), involves insertion of a bare N verbal complement which can adjoin to $\underline{v}^0$ to check its Case-feature before the external argument is projected. The internal argument is not a full XP, so no new feature is created by the checking relation between it and $\underline{v}^0$. The external argument then raises covertly to adjoin to T^0 to check its Case-feature, following overt X^0-movement of $\underline{v}^{0max}$ to T^0, and the structure in (40) is created. The external argument, anaphoric and checked for null Case by [–finite] T^0, is licensed as PRO, and its formal features asymmetrically c-command the O-argument. The derivation is thus allowed.

The second strategy, restricted to those clauses whose main predicate belongs to the small set of lexical [V+N] compounds (perhaps having only one member, specifically *col*), prevents the A-argument from raising to C^0, and allows the argument licensed by T^0 to c-command all other argument within the clause. Since the ergative Case-feature of $\underline{v}^0$ is checked by the predicate itself (see above), the external argument does not bear the feature that requires it to raise to C^0.

Without these strategies, the external argument of a transitive verb in Jacaltec will always be checked for Case by $\underline{v}^0$. The implication of this checking, I have suggested above and will examine in more detail in Chapters

Two and Three, is that a feature is created on the external argument which forces its formal features to (covertly) raise to C^0, and that the argument is able to bind from this position. The movement in such a derivation, while legitimate, results in a representation which is uninterpretable, since the argument checked by [–finite] T^0 does not c-command all other arguments within the clause. The illegitimate representation of such a derivation is given in (50):

(50)



1.5 Concluding remarks

In this chapter, I have explored, within a Minimalist context, some of the properties which group together a number of arguments under the label "subject" across a variety of language types. It was demonstrated that A-, S-, T-, and D-arguments asymmetrically bind other possible arguments in their clauses at whatever level Binding Conditions hold. It was shown that a conspiracy of factors result in the impossibility of O-arguments in control structures being bound from the matrix clause. It was also shown, however, that while control in these structures does appear to be confined to A-, S-, T-, and D-arguments, the availability of just these arguments to be controlled, to

the exclusion of O-arguments, is not attributable to their being checked for Case in a certain position, being inserted in a uniform position, or to a primitive notion of "subjecthood". Rather, the relevant factor in the uniformity of the class for binding and control issues is that A-, S-, T-, and D-arguments (or their formal features) never appear at LF in a position lower than that of other arguments/adjuncts within their clauses. In addition, an account of the scarcity of non-finite control structures in ergative languages was offered, and several strategies of making such constructions possible were considered. Having primarily looked, in this chapter, at clause-internal structures which do tend to pick out only A-, S-, T-, and D-arguments for 'special' treatment, the next chapter moves beyond the clause, and examines some extractability issues. It will be seen that, in this respect, A-, S-, T-, and D-arguments do not pattern similarly.

CHAPTER II

[Spec,C], clausal dominance, and a definition of 'subjecthood'

2.1 'Subjects' II: Some extractability issues

2.1.1 Branigan's (1992) treatment of 'subjects'

It has been observed at least since Huang (1982) that not all instances of extraction are equally sensitive to island violations. Consider the sentences in (51):[44]

(51) a. * *Why* do you wonder [whether Jean said [Jessie hates Fidel *t*]]?
b. ?* *Who* do you wonder [whether Jean said [*t* hates Fidel]]?

An abundance of literature in the *P&P* tradition that discusses the asymmetry illustrated in (51) exists. For instance, Lasnik & Saito's (1984) well-known analysis of the ungrammaticality distinction between adjunct extraction in (51a) and 'subject' extraction in (51b) argues that the ECP applies equally to intermediate traces as it does to initial traces. That is, the intermediate trace in [Spec,C] of the lowest clause in (51b) antecedent-governs the initial trace, and so deletes (52):

[44] The sentence in (51a) is, of course, perfectly acceptable under the interpretation in which *why* modifies the matrix clause, yielded by the representation in (i):

(i) [*why* do you wonder [whether Jean said [Jessie hates Fidel]] *t*]?

Interpretation of *why* as modifying the downstairs clause, involving adjunct extraction out of

(52) ... $[_{CP}\ t'\ [_{TP}\ t$ ...]]
t' antecedent-governs t
(assuming Chomsky's (1986a) formulation of *antecedent-government*)

On the other hand, the intermediate trace in (51a) is unable to antecedent-govern the trace at the end of the chain, so it cannot be deleted, resulting in a chain containing a trace that is not properly governed. That both (51a and b) are degraded is attributed to the fact that *wh*-movement in both skips over an intervening [Spec,C], already filled by *whether*, in raising to the higher clause, violating subjacency. That the sentence in (51a) is considerably worse than the one in (51b) follows, for Lasnik & Saito, from the fact that the chain created in (51a) also violates the ECP.

That there exists a like asymmetry between 'subjects' and 'objects' in a range of constructions (e.g., *that*-trace effects, anti-*that*-trace effects, extraction from an island) is also a well-observed phenomenon, and it is a fact which receives considerable attention in Browning's (1987) work on null operator constructions. Largely developing and extending the analysis of Chomsky (1977), Browning's discussion leads to the fairly strong conclusion that an intermediate trace must delete if it binds an argument trace, a proposal which has carried significant weight in the recent literature on chain uniformity (see, for example, Chomsky & Lasnik (1993) and references cited therein, and further consideration in Chomsky (1995)). But chain uniformity, if we define uniformity with respect to some property P, can

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a *wh*-island, however, is impossible.

clearly obtain in several ways. Plausible candidates for the relevant properties include L-relatedness, A-position versus A'-position, and θ-relatedness.

The 'subject'/'object' asymmetry in extractability from an island is illustrated in (53):

(53) a. ?* *Who* did Julia know why Alex said *t* blamed Silvio for this mess?
b. ? *Who(m)* did Julia know why Alex said Romano blamed *t* for this mess?

'Subject' extraction from a *wh*-island, as in (53a), results in a fairly seriously degraded sentence, as it did in (51b), whereas the otherwise identical 'object' extraction in (53b) results in a sentence that is marginally acceptable. As Rizzi (1990) notes in his discussion of the above asymmetry, long-distance 'subject' extraction from an island is considerably better than adjunct extraction, yet somewhat (and systematically) worse than 'object' extraction. More recently, Branigan (1992) has proposed that 'subjects' in fact uniformly occupy an A'-position, namely [Spec,C]. Given Pesetsky's (1982) observation that long-distance movement from a A'-position appears to be more sensitive to island conditions than is long-distance movement from an A-position, the facts of (53) receive a ready account in a theory like that of Branigan's that holds that extraction in (53a) is from an A'-position, while in (53b) an A-position serves as the extraction site.

Yet, further observation of the facts exemplified in (53) suggests that a 'subject'/'object' asymmetry is not enough to capture the data that such sentences represent. Consider the sentences in (54):[45]

(54) a. ?* *Who* did Julia wonder whether Alex said *t* ate?
b. ? *Who* did Julia wonder whether Alex said *t* arrived *t*?
c. ? *Who* did Julia wonder whether Alex said *t* had been blamed *t*?

The strength of the ungrammaticality of (54b), an instance of extraction of a T-argument, seems more on a par with judgements on extraction of a 'pure object', or O-argument, as in (51b). Judgements on the grammaticality of extraction of a D-argument (54c) are, again, about the same as for the extraction of the O-argument in (51b). Extraction of the S-argument, taken here, following Hale & Keyser (1986 et seq.), to be underlyingly identical to an A-argument, in (54a) results in a strongly ungrammatical sentence on a par with similar A-argument extraction in (51a).

The above observations may suggest that while A- and S-arguments uniformly occupy an A'-position (presumedly [Spec,C]), T- and D-arguments – both also lumped under the label of 'subject' thus elaborated – do not.

While the judgements in (51) and (54) are quite delicate, (un)grammaticality distinctions between the extractability of the different types of arguments become substantially sharper when other types of island violations are observed. Consider extraction from a finite clause contained

[45] Indicated judgements are relational, rather than absolute.

within an adjunct, as in (55), where the distinctions in the gradations of ungrammaticality are quite robust:[46]

(55) a. ?* *Who* did you visit Rebecca without knowing *t* had invited John?
b. ?* *Who* did you visit Rebecca without knowing *t* had already eaten?
c. ? *Whom* did you visit Rebecca without knowing she had invited *t* ?
d. ? *Who* did you visit Rebecca without knowing *t* had already left *t* ?
e. ? *Who* did you visit Rebecca without knowing *t* had been invited *t* ?

Similar judgements are found in cases of *wh*-movement from a finite clause contained within a relative clause, as seen in (56):

(56) a. ?* *Who* did he hear the rumour that Alexander thought *t* had apprehended the criminal.
b. ?* *Who* did he hear the rumour that Alexander thought *t* had sung at the party?
c. ? *Whom* did he hear the rumour that Alexander thought Sally had apprehended *t* ?
d. ? *Who* did he hear the rumour that Alexander thought *t* had just arrived *t* ?
e. ? *Who* did he hear the rumour that Alexander thought *t* had been apprehended *t* by Sally?

2.1.2 [Z]

It seems clear that the feature which uniformly attracts movement of A- and S-arguments to [Spec,C] must be a non-Case feature. Otherwise, T- and D-arguments would be obliged to raise to the position as well – at least in an accusative language like English, where all such arguments are typically licensed for nominative Case –, which I have argued not to be the case. But, while I will maintain the former assumption as to the non-Case status of the feature F of C^0, further consideration reveals that it is not entirely obvious (or even wanted) that T- and D-arguments should be excluded from also

[46] The (a) and (c) sentences in examples (55) and (56) here are adapted from Branigan (1992).

uniformly raising to [Spec,C]. Indeed, I will argue that T- and D-arguments *do* uniformly raise to [Spec,C], but differ from A- and S-arguments in that they must reconstruct back into the A-system. I now examine why this might be, initially restricting my attention to the English data.

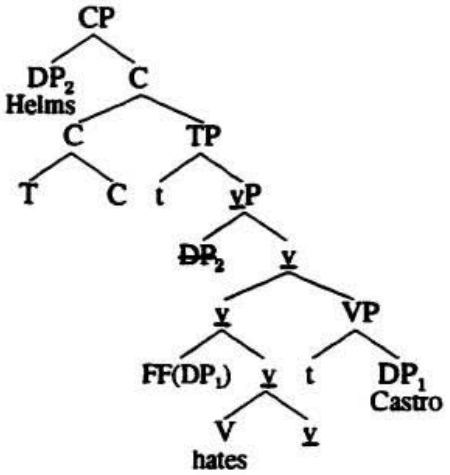
Since I have yet to establish the (morphological) properties which characterise the proposed feature of C^0, let us first assign it an arbitrary label – call it a Z-feature ($F_Z(C)$). Still, I have suggested that at least A- and S-arguments are attracted by the feature; if I am able to demonstrate that T- and D-arguments are, too, then the feature might be related in some way to the nominal status of these categories. So, for the moment, let us proceed under the assumption that $F_Z(C)$ is 'nominally-related'.[47] Further, since I have suggested that interclausal extraction of A- and S-arguments in English is from [Spec,C], $F_Z(C)$ must be a strong feature.

I begin with a simple English transitive clause, exemplified in (57a), representing its derivation as in (57b):

[47] Such an assumption is, of course, utterly speculatory, and will not drive my analysis in any way.

(57) a. Helms hates Castro.

b.

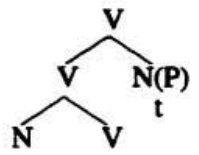


The derivation I propose for (57) proceeds as follows: V is merged with DP_1; $\underline{v}$ is merged with V; $\underline{v}$ has a strong V-feature which attracts V; DP_2 is merged with $\underline{v}$; T is merged with $\underline{v}$; C is merged with T; C, like $\underline{v}$, cannot stand on its own, and attracts T (see discussion below); further, strong $F_Z(C)$ attracts the relevant feature of DP_2 to [Spec,C]; $F_Z(C)$ is checked against the relevant feature of DP_2, and the Case feature of DP_2 is also checked by T, adjoined to C. In the covert syntax, the Case-feature of DP_1 is attracted by weak $F_{ACC}(\underline{v})$, carrying along $FF(DP_1)$.

Unergative derivations proceed along roughly the same lines, following Hale & Keyser's (1991 et seq.) analysis of unergatives as being underlyingly transitive. Notably, though, the incorporated internal argument of an unergative predicate will be checked for Case overtly, unlike its transitive counterpart. Let us suppose that an unergative predicate is simply a transitive predicate which has, as one of its properties, a strong "needs

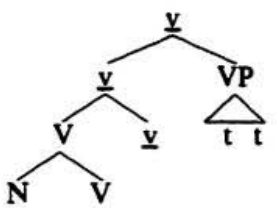
Af(fix)" feature – $F_{*Af}(V)$. The derivation of a simple unergative clause in English can be analysed as involving the following: V is merged with N(P). Strong $F_{*Af}(V)$ must be checked before the derivation can continue, and can be satisfied by *incorporation*, in the sense of Baker (1988), of the nominal element of N(P) into V, deriving (58):

(58)



v is then merged with V, and the strong V-feature of v must be satisfied before v can further project. It can be checked via X^0-movement of V^{0max} to adjoin to v, forming (59):

(59)

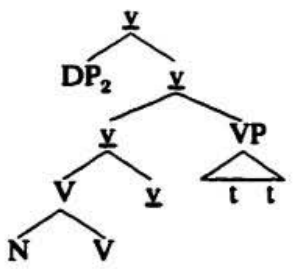


At this point, the incorporated internal argument enters into a checking configuration with v. If the Case-features of N and v match, they are checked and erased. If they do not match, the derivation is canceled by 'feature mismatch', stated here in (60) (from Chomsky (1995:309)):

(60) Mismatch of features cancels the derivation.

DP_2, the external argument, is merged with v, forming (61):

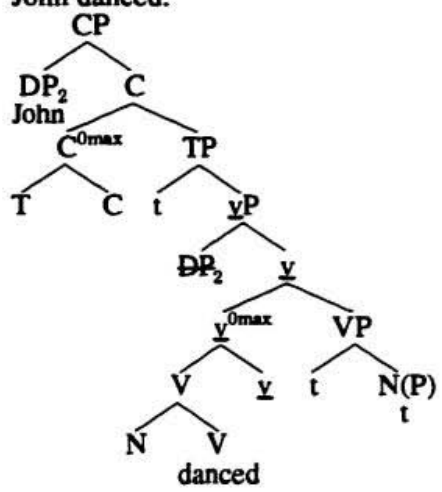
(61)



At this point, the derivation proceeds in much the same way as in a transitive clause, DP_2 raising overtly to [Spec,C] where its Z-feature checks $F_Z(C)$. For me, then, the simple unergative clause in (62a) is analysed as (62b):

(62) a. John danced.

b.



Notably, this proposed derivation makes a strong prediction: the Case-feature of the incorporated argument of an unergative verb *must* match the Case-feature of v, since this argument will enter into a legitimate checking relation with v before any other category. This, of course, is the expected and desired result in the class of 'accusative' languages, where the Case properties of external arguments of both transitive and unergative predicates

(i.e., A- and S-arguments) match up. The prediction becomes more interesting in the case of 'ergative' languages, where these same arguments are not licensed for the same Case. The prediction here is that the only structural Case available for S-arguments in ergative languages is the Case associated with T^0 – the Case-feature of $\underline{v}$ being necessarily checked and erased before the external argument is even inserted into the derivation. This runs counter to several recent analyses of ergativity (for example, Bobaljik (1992,1993), Cheng & Demirdache (1993), Laka (1993b), and López & Austin (1995)), which argue that the Case of S-arguments in ergative languages, absolutive, should be associated with the Case of the verb (here, of $\underline{v}$; regardless, my proposal makes the same prediction either way) – the structural equivalent of accusative Case in, say, English. The consequences of the prediction forced here are considered in some detail in Chapter Three of this thesis.[48]

I might now suggest, in view of the approach to transitives and unergatives above, that the proposed Z-feature of C^0 is taking over the role of the EPP-feature typically associated with Infl. It certainly seems to play the same role, in forcing some argument to overtly raise out of the VP. External arguments of transitive and unergative predicates are overtly attracted to [Spec,C] by the proposed $F_Z(C)$. They do not move through [Spec,T] *en route*

[48] It should be noted that the approach here is compatible with the suggestion made in Mahajan (1990) for Hindi and Bobaljik (1993) and Laka (1993b) for Basque, that the so-called "ergative unergatives" in these languages are not, in fact, unergative at all (though Martínez Etxarri (1994) makes the interesting proposal that the O-argument of such clauses in Basque necessarily incorporates into the verb at LF).

to this position, since T^0 in these clauses lacks a strong feature which would allow that head to project a Spec position.[49]

I turn now to unaccusatives, which lack an external argument, and see that the analysis developed thus far forces me to conclude that their internal argument, too, is forced to raise to [Spec,C] to check $F_z(C)$. I assume unaccusative predicates, as discussed in §1.2.2, to lack a projection of v, and to be immediately selected by T (or by another V in cases of clauses containing auxiliaries). So, a simple English unaccusative clause like the one in (63a) will project a structure along the lines of the shape of the representation in (63b):

(63) a. The icebergs arrived.

b. $[_{CP}\ [_{TP}\ [_{VP}\ V\ \textit{T-argument}]]]$

I propose, however, that T^0 merged into the extended projection of an unaccusative verb *does* contain a strong feature, necessitating that the internal argument of such predicates raise to [Spec,T], before raising further to [Spec,C] (attracted there by strong $F_z(C)$). Two important questions arise: First, why should T^0 in the clausal projection of an unaccusative predicate encode different properties than does T^0 in the clausal projection of a transitive/unergative predicate? And, second, what is the status of the

[49] The lack of movement through [Spec,T] would seem to be best explained via an economy account. That is, external argument raising through [Spec,T] to be checked for Case, *en route* to [Spec,C], produces a derivation less economical than if the external argument raises directly to [Spec,C] and is checked for Case by T at LF. The former derivation violates economy, and is excluded.

proposed feature of T^0? The relevant difference between unaccusative and transitive/unergative predicates, I suggest, lies in the "poverty" of the argument structure of unaccusatives, most notably that they lack a $\underline{v}^0$ projection altogether. I will suppose that, for English, any T^0 merged into the extended projection of a main verb that does not project a $\underline{v}^0$ must be specified for a strong D-feature which overtly attracts the closest feature that can check that property of T^0.[50] This proposal will need to be revised when I come to the passives, below, but I will keep to it for the moment.

The derivation of an unaccusative clause, then, proceeds somewhat differently than does the derivation of a transitive or unergative clause, since T^0 has a strong feature which cannot be skipped over in the overt syntax. The strong D-feature of T^0 will have to be checked before the derivation can proceed, so the T-argument will raise to [Spec,T] to check it, before further raising to [Spec,C], attracted by strong $F_z(C)$. Movement to [Spec,T] satisfies the Chain Condition (Chomsky (1986b), Chomsky & Lasnik (1993)), since the Case-feature of the T-argument is also checked by T^0 as a "free rider". The same, however, cannot be said for the chain created by the subsequent raising from [Spec,T] to [Spec,C], where the trace in [Spec,T] heads a nontrivial argument chain – interpretation of the argument at LF will be impossible if the formal features of the trace/copy in [Spec,T] are erased.

[50] Why this might be is uncertain at this point. One possibility is that the proposed feature of T^0 is able to 'compensate' for the predicate's impoverished argument structure, though it is unclear how this might obtain.

I am now in a position to consider chain formation in cases of A- or S-argument extraction versus T-argument extraction.[51]

2.1.3 The treatment of uniform and non-uniform chains

The argument/adjunct asymmetry in extractability out of an island was considered briefly in §2.1.1 of this chapter, where I discussed the relevant analysis of Lasnik & Saito (1984). What Lasnik & Saito's treatment and most subsequent accounts of the asymmetry in question have in common is that they all attribute the additional ill-formedness of adjunct extraction to an "offending" intermediate trace, which (under the theory assumed here) results in a chain which does not constitute a well-formed LF object.

Consider now the sentences in (64), similar to those in (51) and (54), where extraction of the A-argument from an island in (64a) results in a sentence considerably more degraded than extraction of a T-argument (64b) or O-argument (64c):

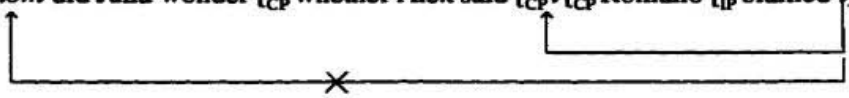
(64) a. ?* *Who* do you wonder [whether Julia said [*t* hates Alex]]?
b. ? *Who* do you wonder [whether Julia said [*t* arrived *t* late (for the meeting)]]?
c. ? *Who* do you wonder [whether Julia said [Rebecca hates *t*]]?

Extraction of the O-argument in (64c) results in the creation of two chains in the overt syntax. One chain has its head in [Spec,C] of the lowest clause,

[51] Derived 'subjects' of passive VPs, D-arguments, remain to be discussed, since I have suggested that they pattern similarly, in this respect, to T- and O-arguments. I return to passives following consideration of chain formation in the more "basic" cases.

Rebecca hates t, and its tail as the complement of V. The other chain has its head in [Spec,C] of the matrix clause, and its tail as the complement of V in the lowest clause. The head of the first chain deletes, and, at LF, the formal features of the lowest copy raise to be checked by v:

(65) [$_{CP}$ *whom* did Julia wonder [$_{CP}$ whether Alex said [$_{CP}$ *t* [$_{CP}$ Romano [$_{IP}$ blamed *t*]]]]]?



Extraction of the A-argument in (64a) results in three chains being created. One chain is an argument chain, although it does not constitute a uniform A-chain, since its head is in an A'-position ([Spec,C] of the lowest clause), while its tail is in an A-position ([Spec,v]). The Q-feature of a secondary C^0 in the lowest clause attracts strong F_Q(A-argument) to its Spec position, creating a second chain.[52] (I am, therefore, assuming a CP-recursion structure). The second chain, hence, has its head in the Spec position of a secondary C head of the lowest clause, and it tail in [Spec,v]. The final chain has its head in [Spec,C] of the matrix clause, and its tail in [Spec,v] of the lowest clause. But consider the copy in [Spec,C_I] of the lowest clause. It is in this position that the argument is checked for Case (by T^0). Assuming some form of the Visibility Condition (Chomsky & Lasnik (1993); see also Chomsky (1991)) to hold, the copy cannot delete, because doing so would cause the derivation to crash. Suppose, then, that the tail of the chain created by the *wh*-movement

[52] Future research will explore the relationship between Z- and Q-features. For present purposes, I simply assume the features to be incompatible in that they may not be inserted as common properties of a single minimal head. (Notice that this may require me to assume that the Z- and Q-features of nominal elements, too, do not appear on the same minimal head. If this is so, I might suggest that the Q-feature is a property of the head D, while the

is actually in [Spec,C_1] of the lowest clause. *Wh*-extraction of an A- or S-argument, then, is from an A'-position, unlike in the case of O-argument extraction, which is from an A-position. Consequently, long-distance extraction of A- (or S-) arguments should be more sensitive to intervening islands than is long-distance extraction of O-arguments, since, unlike the 'intermediate' traces of O-argument extraction which *must* be deleted, the 'intermediate' traces of the uniform A'-chain created by A-argument extraction cannot.

This is enough to account for the ill-formedness of A- or S-argument extraction from a *wh*-island, unlike the otherwise identical marginal acceptable cases of T-argument extraction. The tail of the relevant chain created by the former derivation occupies an A'-position ([Spec,C]), while my approach holds that the latter derivation includes a chain with its tail in an A-position ([Spec,T], which, in turn, heads a uniform A-chain). Some specifics remain to be worked out, but the proposal here seems able to capture an asymmetry which has no immediate account in a theory which ascribes a uniform reconstruction site for all 'subjects'. While both types of extraction result in degraded sentences, since both involve a violation of the MLC, stated in (5), the ill-formedness of *agent* extraction is attributed to whatever Pesetsky's (1982) observation that long-distance extraction from an A'-position is more sensitive to islands than extraction from A-position is reducible to under Minimalist assumptions.

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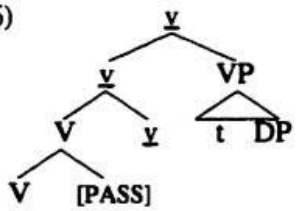
proposed Z-feature is a property of N^0.)

I have now pointed towards a reasonable account of the (un)grammaticality gradations of extraction out of an island for A- and S-arguments versus T- and O-arguments in English: A- and S-argument A'-extraction creates a chain with its tail in an A'-position ([Spec,C]), while T- and O-argument A'-extraction creates a chain with its tail in an A-position ([Spec,T]). I now return to derived 'subjects' of passive VPs – D-arguments –, which, recall, I have suggested pattern similarly, in this respect, to T- and O-arguments.

2.1.4 Passives

I follow Baker, Johnson, & Roberts (1989) in analysing passive morphology as an argument which absorbs the external θ-role of the predicate, and checks the Case-features of $\underline{v}$. The passive morphology, I assume, is attached to V and checks the Case of $\underline{v}$ when V^{0max} adjoins to that head, resulting in a structure as in (66):

(66)



The external θ-role of the predicate absorbed by the passive morphology, $\underline{v}$ is unable to project a Specifier, since the position exists only by virtue of its being a position where an argument can be θ-marked – its presence is not

motivated by any requirement of the grammar, and is therefore excluded. Any projection of a passivised verb, then, is "impoverished" in a sense that does not hold for the transitives and unergatives already discussed. Why do I say this, and how might such a distinction help in establishing my claim that passive VPs pattern alike to unaccusatives with respect to the argumental extraction facts being presented? The proposed "poverty" of passive (and unaccusative) VPs, I suggest, is related to the predicate's lack of an external θ-role at the point of its merger with further structure. That is, any element inserted into a clause projected from such a VP is a member of the extended projection of a verb which lacks (or has already discharged) an external θ-role.

In the case of a passive VP, the strong V-feature of $\underline{v}$ must be satisfied before further structure can be created. V raises to $\underline{v}$ to check the feature, carrying along the passive morphology which checks the Case-feature of $\underline{v}$, and also absorbs the verb's external θ-role. Only then can the operation Merge apply to the root. Likewise for unaccusative VPs, which totally lack an external θ-structure. Revising the proposal which I made above in §2.1.3, I suggest here that, in English, any T^0 selected into the extended projection of a *main* verb which lacks an external θ-role must be inserted with a strong D-feature. Note that this precludes the possibility of strong $F_D(T)$ in the extended projection of a transitive or unergative predicate – the external θ-role of these verbs can only be discharged into [Spec,$\underline{v}$] once the argument generated there has been made visible for θ-marking by Case-checking

against some feature of T^0, necessarily after T^0 has been inserted into the derivation.

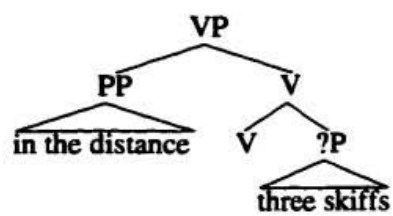
The prediction is as desired, then: The D-argument of a passive VP will pattern similarly to T- and O-arguments in cases of illegitimate A'-extraction in triggering weaker ungrammaticality judgements for most English speakers than does illegitimate A'-raising of A- and S-arguments. The reason for this asymmetry, I have claimed, is that the tail of the resultant *uniform* chain created by A- or S-argument extraction occupies an A'-position, namely [Spec,C], while the tail of the resultant *non-uniform* chain created by T- or D-argument extraction occupies an A-position, namely [Spec,T].

2.1.5 A note on locative inversion

The above proposal might deal with the optional nature of English locative inversion as being determined by the properties of the locative PP. Consider the sentences in (67), for which I will assume a VP-structure as represented in (67'):

(67) a. Three skiffs appeared in the distance.
b. In the distance appeared three skiffs.

(67')



Suppose that the PP in such structures can be optionally selected with or without a D-feature. If inserted with a D-feature, the PP will raise overtly to T^0 to check that head's D-feature, being closer to that head than the T-argument, *three skiffs*. An inversion structure then obtains, as in (67b). Note now that the PP must also be capable of checking the strong Z-feature of C^0, or the T-argument will be overtly attracted to it, losing an account of the word order in these clauses.[53]

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[53] Here, something needs to be said about the ill-formed sentence in (i), which the account in the text predicts to be acceptable:

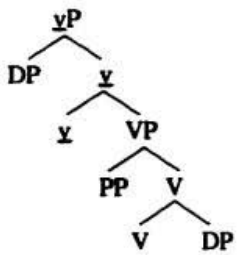
(i) * I put in the fridge the ale.

versus the perfectly well-formed (ii):

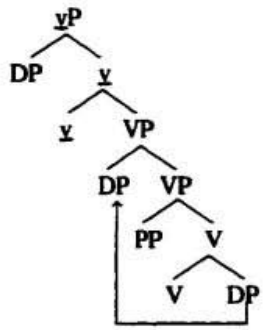
(ii) I put the ale in the fridge.

I would suggest that Takano's (1995) analysis offers the most promising account of the ill-formedness of the sentence in (i). Takano argues that Economy forces the *theme* argument to to scramble to adjoin to VP, putting it closer to the position where its Case-feature can be checked, supposing that such scrambling is costless, since the argument remains within the same minimal domain (of V^0). Given a cost-free status for this type of scrambling, the derivation in which the *theme* argument remains in its insertion position (see the structure in (iii)) should be ruled out, the Case-feature of that argument having to raise further at LF to be checked than if the argument overtly scrambled to VP (see the structure in (iv)):

(iii)



(iv)



See Takano (1995) for further discussion on the lack of such scrambling in DP-DP internal argument frames. Takano's treatment clearly requires further consideration to be adopted in full here, but constraints of space and time prevent it.

On the other hand, if the PP is inserted lacking a D-feature, the T-argument raises to check both the D-feature of T^0 and the Z-feature of C^0, and the sentence in (67a) is the result. As such, A'-extraction past an island of the T-argument in the non-inverted construction should result in a marginally acceptable sentence, just as obtains when the T-argument is the sole non-verbal element in the VP. And, the marginal acceptability of the sentence in (68) suggests this to be the case:[54]

(68) ? *What* do you wonder [whether Julia said [*t* appeared in the distance *t*]]?

Slightly more problematic is an account of the apparently unergative 'motion' verbs, which allow inversion of a (necessarily) goal PP. It seems that these verbs (e.g, 'walk', 'run') have both an unergative and unaccusative variant. Consider the sentences in (69) and (70) where (69b) shows that a non-goal PP may not be inverted in these constructions, though a goal PP (70b) may:

(69) a. Ivan ran on the track.
b. * On the track ran Ivan.

(70) a. Ivan ran into the house.
b. Into the house ran Ivan.

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[54] Note, however, that the present proposal lacks an explanation for the impossibility of extraction of the T-argument from a clause in which locative inversion has taken place. Consider the contrast in (i):

(i) a. *What* did you say *t* appeared in the distance *t* ?
b. ?* *What* did you say in the distance appeared *t* ?

I will not venture an account of the above contrast here. See, for example, Hoekstra & Mulder (1990), Branigan (1992), and Branigan (1993) for possible accounts.

The contrast exemplified in (69b) versus (70b) has received considerable attention in the literature (see, for example, Coopmans (1989), Levin & Rappaport Hovav (1992), and Levin & Rappaport Hovav (1995), among others), and I will not pursue the issue in any depth here. However, I will suggest that the *unergative/unaccusative variant* approach would appear to gather support from the following sentences in (71):

(71) a. Ivan ran a good race on this track / on Thursday.
b. * Ivan ran a good race into the house / into the stadium / etc..

The impossibility of the verb in (71b) taking an apparent *theme* complement is easily explained if 'run' in that sentence is unaccusative and 'Ivan' is already occupying its thematic complement position.

The contrast in the sentences in (71) above is relevant to the present analysis in the following manner: If V^0 differs in the two sentences in that it projects a $\underline{v}$ head in (70a), but not in (71a), we should expect a contrast in the acceptability of the sentences if 'Ivan' undergoes A-extraction. And, in fact, such a contrast is apparent. Observe the sentences in (72):

(72) a. ?* *Who* did she hear the rumour that Alexander thought ran on this track?
b. ?? *Who* did she hear the rumour that Alexander thought ran into that house?

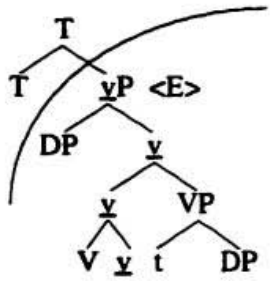
While the above contrast is by no means conclusive, I will suggest that it be seen as further evidence that whether or not T^0 in English is inserted with a

strong D-feature is determined by the thematic properties of the main verb which it selects.

2.2 [Z] as [event]

I will now suggest that the feature which I have proposed as an inherent property of C^0 is an [event] feature. The *raison d'être* of the [event] feature, I propose, is at least two-fold. First, it is required to check a [+tense] feature of the head T.[55] Second, it checks an [event] feature of some argument, which receives that feature by virtue of being in a certain relation with a verb when that verb discharges its event-role. The form in which I adopt the idea here is essentially that of Higginbotham (1985), which introduces an event position – designated by *E* – into the argument structure of verbs, and where it is proposed that the event-role of the verb is discharged at the point where VP meets Infl.[56] Consider, then, the structure given in (73a) for the VP projected of a transitive verb:

(73a)



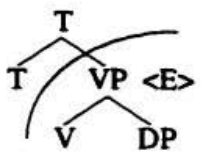
[55] I will not work out in any great detail here how such a proposal works out in the majority of tenseless constructions in English. This aspect of the proposed [event] feature plays a central rôle in the consideration of certain constructions in Italian and European Portuguese found in §2.3. It should be noted that I assume, following Martin (1995), that T^0 in non-finite control structures has a [+tense] feature. I will derive this requirement in §2.3.

[56] For some recent related research, see, for example, Travis (1994) and Harley (1995).

For transitives, the event-role is discharged when T is merged with the projection of v. What I propose here is that a feature – an [event] feature – is created on the 'closest' (Chomsky (1995)) argument to the 'binding position' of the *e*-role. The external (A-) argument, occupying [Spec,v], is the closest item, and so an *event* feature is created on that argument. Similarly for unergatives, where an [event] feature will be created on the external (S-) argument in [Spec,v].

In the case of unaccusatives, the event-role is discharged when T is merged with the projection of V, as illustrated in (73b):

(73b)



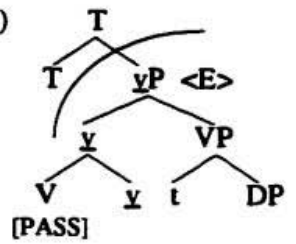
The closest argument, the internal (T-) argument in this instance, gets the [event] feature.

The [event] feature is attracted (overtly, in English) by strong $F_{event}(C)$, and thus derives the required raising of those arguments bearing the feature to [Spec,C].[57] I will show further, in consideration of ergative languages in Chapter Three, that the [event] feature created on the argument is a

[57] English *want*-type verbs, I suppose, have a selectional property which restricts them from taking an eventive complement. The *for*-complementiser, I assume, is the lexical spell-out of a C head lacking an [event] F. I will not pursue this line of thought, but the idea becomes

specified type of D-feature, just as Chomsky (1995) proposes to treat *wh-* (Q-) features. In fact, supposing that the [event] feature is a type of D-feature effectively simplifies the treatment of passive VPs, as well. Consider the structure in (73c), given for a passive VP:

(73c)



Following Baker, Johnson, and Roberts (1989) that the passive morphology has argumental status, we might expect the passive morphology to pick up the [event] feature. Given the supposition that the [event] feature is a D-feature, however, this expectation disappears. The null hypothesis is that the [event] feature can only be created on a full XP, and I will keep to that assumption unless led by the data to suppose otherwise. In that case, the internal (D-) argument of a passive VP gets the [event] feature, and is attracted, eventually, to [Spec,C] by $F_{event}(C)$.[58]

I will now examine how the above proposal can account for certain facets of two curious constructions – the Italian absolute past participle clause and the European Portuguese inflected non-finite clause. While both

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relevant in the discussion of European Portuguese inflected non-finite clauses in §2.3.3 below.

[58] I keep to the assumption here, following Higginbotham (1985), that all verbs discharge an *e*-role. More recently, Kratzer (1989) has argued that only certain predicates – *stage-level*, rather than *individual-level* predicates – bear *e*-roles. See also Diesing (1992) for related

constructions have received attention in the literature (notable here are Belletti (1992) and Raposo (1987), respectively), these accounts require machinery which is not obviously consistent with the framework of assumptions laid out in Chomsky (1993,1995) and adopted here, and nor have several of the remarkable similarities between the two constructions been explored.

2.3 On '*ne*-cliticisation' and other related things

Following a proposal made to me by Philip Branigan (personal communication) (see also Branigan (in prep)), I will suppose that the Italian 'partitive' clitic *ne* (French *en*, Catalan *en*, Sardinian *nde*, etc.) is licensed by movement into C. If *ne* is able to quantify an argument YP, I assume that *ne* must bind that YP. Hence, the conclusion is that if *ne*-quantification of YP results in a well-formed derivation, the argumental feature(s) of YP must reside in a position below C^0. If this is so, I should be in a position to determine the reconstruction site of various verbal arguments, depending on whether or not they can be associated with this clitic.

2.3.1 The facts of Italian

At this juncture, I will briefly review the distribution of the clitic *ne* in Italian in the most basic of clauses. The consideration given is neither comprehensive, in any sense, nor conclusive, and is sketched out here only to

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discussion.

serve as a background for the analysis of a specific type of Italian clause which follows.

Only O-arguments and T-arguments may be quantified by the clitic *ne* in Italian. T-arguments, further, may only be quantified by the clitic if they do not undergo overt raising out of the VP. Compare, for example, the perfectly well-formed sentence in (74a) with the ungrammatical sentence in (74b):

(74) a. Ne arriveranno molti.
of.them will.arrive many
'many of them will arrive'

b. * Molti ne arriveranno.

(Burzio (1986:22,23))

That the ill-formedness of (74b) does not result from the pre-verbal position of the T-argument can be shown by the grammaticality of both sentences in (75a and b):

(75) a. Molti esperti arriveranno.
many experts will.arrive

b. Arriveranno molti esperti.
will.arrive many experts

(ibid.:21))

Overt raising of the T-argument would appear to be optional, and the optionality of overt raising holds for the external arguments of transitives and unergatives, as well, as can be observed in the sentences with transitive verbs in (76):

(76) a. Molti esperti esamineranno il caso.
many experts will.examine the case

b. Esamineranno il caso molti esperti.
will.examine the case many experts

(ibid.)

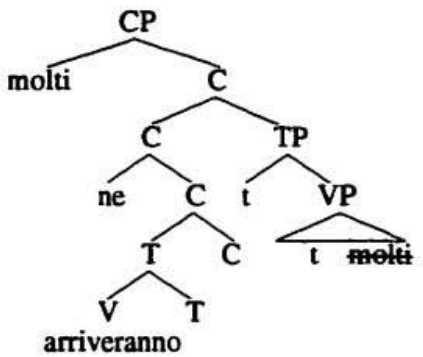
However, as can be seen in the (76) sentences, if the external does not undergo obvious overt raising, it must be extraposed to a post-verbal position – post-verbal-complement position, in the case of transitives. I will not pursue the matter here, but I will suppose that if the external argument does not overtly undergo the type of raising which derives the sentence in (76a), it must postpose to a position adjoined to TP, deriving (76b).

The most obvious account of the optionality of such raising for an analysis of the type developed here is to suppose that the [event] F of C in Italian has both a strong and a weak option.

Consider now the contrast between the grammaticality of *ne*-quantification of the T-argument in (74a) versus its impossibility for the T-argument in (74b). Recall that I argued that T^0 projected from an unaccusative verb in English necessarily carries a strong D-feature which attracts the T-argument. If the proposal carries over to Italian, I lose a possible account of not only the acceptability of the sentence in (74a), where the T-argument should be forced to raise overtly to a pre-verbal position, but also of the ungrammaticality of (74b), where *ne*-quantification of the T-argument should be legitimate, the clitic *ne* – attached to C^0 – being able to

bind the formal features of the T-argument occupying [Spec,T], where the argument's Case-feature is checked. The conclusion, then, is that the T head projected of an unaccusative (or passivised) verb in Italian does not bear a strong D-feature, as it does in English. This makes the correct predictions for the sentences in (74): If the [event] F of C^0 is strong, as I suppose it is in (74b), the T-argument raises directly in the overt syntax to [Spec,C] to checks its own [event] F. Supposing that strong $F_{event}(C)$ also attracts the [tense] F of T^0 overtly,[59] T^{0max}, presumedly also carrying the verb, also raises to adjoin to C^0 overtly. Consider the proposed Spell-Out/LF representation created:

(77) * Molti ne arriveranno.



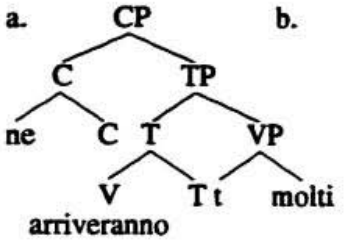
The clitic *ne* is unable to bind the argument from which it is extracted, and, as predicted, the derivation fails.

Now consider the perfectly acceptable sentence in (74a), which, I have suggested, results from a derivation that differs from the illegitimate one in (74b) only in the strength of its [event] F of C^0 – strong in (74b); weak in

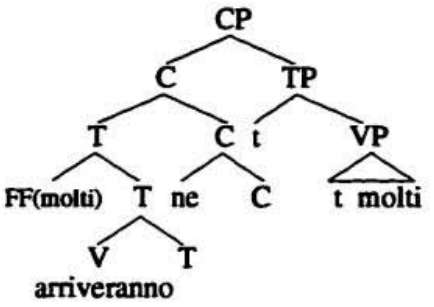
[59] I consider this in further detail in Chapter Three. Its immediate adoption is not required,

(74a). The proposed Spell-Out and LF representations of the sentence are given in (78a) and (78b), respectively:

(78) a.



b.



Here, the clitic attaches to C^0 in the overt syntax, though the formal features of the T-argument, *molti*, must wait (by Procrastinate) until LF to adjoin to T^{0max}, where the argument's Case-feature is checked. Weak $F_{event}(C)$ further attracts T^{0max} – specifically, the [tense] F of T, in addition to the [event] F of the argument –, and the maximal head adjoins to C. The relevant features are checked, and *ne*, being contained within the same minimal head (C) that dominates the formal features of the argument is able to bind (and quantify) the argument. The derivation thus converges.

2.3.2 The position of syntactic objects in Italian *Absolute Past Participle Phrases* (I)

I now examine the so-called Absolute Past Participle Phrases (APPPs) in Italian, discussed in Belletti (1981), Belletti (1990: specifically, Chapter Two), and Belletti (1992). First, I will introduce some of the more salient characteristics of the Italian APPP. I then demonstrate that a certain

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since covert raising of T^0 to C^0 here would derive the same effects.

construction in European Portuguese shows suspicious similarities with the Italian clause in question. I offer an analysis of the Portuguese construction, which, in turn, also provides me with an account of the Italian APPP initially considered.

The properties characterising these constructions which interest me here are exemplified in (79):[60]

(79) a. Arrivata io/*me, Gianni tirò un sospiro di sollievo.
arrived(fs) I(NOM)/me(ACC) G. drew a sigh of relief
'I [having] arrived, Gianni was relieved'

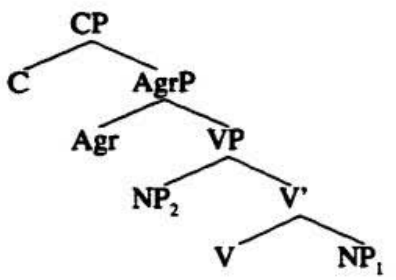
b. Conosciuta me/*io, hai cominciato ad apprezzare il mare.
known(fs) me(ACC)/I(NOM) you started to like the seaside
'[Having] known me, you started liking the seaside'

c. * Telefonato Gianni, Maria andò all'appuntamento.
telephoned(ms) G. M. went to.the appointment

d. * Salutata Maria da Gianni, tutti uscirono dalla sala.
greeted(fs) M. by G. everyone went.out of.the room

As Belletti notes, APPPs lack full temporal specification. Because of this fact, Belletti assumes T^0 to be absent in such constructions, allowing a (minimal) structure as in (80) for APPPs:

(80)



[60] Unless otherwise noted, all example sentences found in this subsection are taken from Belletti (1992). First person verbal agreement also shows feminine agreement.

Let us first examine the APPP in (79a) with an unaccusative verb. The first important observation is that the order in the constituents in the APPP in (79a) is mandatory, the T-argument being unable to appear in front of the verb, as shown by the impossibility of (81):

(81) * Maria arrivata, ...
Maria arrived(fs)

Therefore, if the T-argument has raised in the clause to the Spec of Agr, for whatever reason, the verb must be adjoined to C. That the T-argument has overtly raised out of its base-generated position as the complement of V is a forced conclusion for Belletti, since she demonstrates that *ne*-cliticisation cannot take place in APPPs with an unaccusative verb, as shown in (82):[61]

(82) a. Arrivati parecchi invitati, la festa cominciò.
arrived(p) many guests the party began
'Many guests [having] arrived, the party began'

b. * Arrivati*ne* parecchi, ...
arrived(p)-of.them many

But, recall that the approach to *ne*-cliticisation sketched out above suggests that the well-formedness of the construction is not dependent upon the availability of *ne* for extraction, but, rather, that *ne*, attached to C^0, be able to c-command the reconstruction site of the category that it modifies. So, according to this approach, the T-argument in the APPPs in (79a) and (82a) cannot reconstruct to a position lower than C^0. One means of ensuring that

[61] Worth pointing out here is the fact that *ne*-cliticisation within transitive APPPs is possible.

the T-arguments in these phrases will not be reconstructed below C^0 is to suppose that they always raise directly from their VP-internal position to [Spec,C] to check the proposed [event] feature of C^0. Noticeably, this forces a slightly different status for the strength parameter of the [event] feature of C^0 between simple clauses and APPPs in Italian. Specifically, I concluded above, in §2.3.1, that the feature strength of $F_{event}(C)$ in Italian is optionally strong in simple clauses, yet in APPPs it must be uniformly strong in order to account for the impossibility of (82b). Following Belletti's suggestion that APPPs lack a T head may provide me with something of an explanation of this distinction, in that V, unable to check its V-features against T (since it is absent in this sort of clause) is forced to adjoin to C^0 to have these features checked.[62] While I conclude with Belletti, then, that T-arguments obligatorily raise overtly from their VP-internal positions in APPPs, I differ from her in the proposed landing site – here, drawn by strong $F_{event}(C)$ to [Spec,C]; for Belletti, [Spec,Agr].[63] Still, the obligatory word order of *past participle–T-argument* remains unexplained for me, as does the availability of nominative Case for the T-argument. I turn first to the problem raised by the latter fact, returning to the former in due course.

As is well-known since Rizzi (1982) and Raposo (1987), both Italian and European Portuguese (EP) allow nominative DPs in certain non-finite

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I discuss this below.

[62] Not a very good explanation, to be sure, and one that will be dropped shortly.

[63] It is not entirely clear what sort of feature of Agr^0 (or, more precisely, Agr^{0max}) might attract the T-argument under Belletti's approach. The question becomes irrelevant if our analysis proves successful.

clauses: for Italian, the gerundival construction exemplified in (83); for EP, the inflected (or, personal) infinitive construction, exemplified in (84). That A- and S-arguments of both finite and non-finite clauses in EP raise overtly out of their VP-internal position is fairly well attested (see Raposo (1987), Murasugi (1992)). If this raising is to the Spec of I^0 (here, [Spec,T]), the auxiliary in (84) must occupy a position at least as high as C^0.

(83) Avendo tu telefonato alla polizia, ...
having you(s) telephoned to.the police
'you(s) having telephoned the police, ...'

(Rizzi (1982:129))

(84) Eu penso [ter*em* algumas pessoas comprado esse livro].
I think to-have-3p some people bought that book
'I think that some people have bought that book'

An immediate observation which must be made is that both the Italian gerundival and EP inflected infinitive constructions are able to license (overt) nominative A- and S-arguments, while this is impossible in Italian APPPs, as shown by the ungrammaticality of (79c), repeated here as (85):

(85) * Telefonato Gianni, Maria andò all'appuntamento.
telephoned(ms) G. M. went to-the appointment

Therefore, care must be taken not to equate the Italian gerundival phrases and APPPs. Rather, in what follows, I intend solely to demonstrate the viability of Case-checking in [Spec,C] in terms of these other constructions, and to show that related operations can explain the licensing of nominative Case in some APPPs. I restrict my attention to the EP inflected infinitive

clause, though, hopefully, the facts of the Italian gerundive construction follow from the account offered.

2.3.3 European Portuguese and the feature properties of C°

The problem, in short, is that the claim that infinitival tense ([–finite] T^0) checks null Case-features, if unqualified, is insufficient to account for the distribution of Case in EP inflected infinitive clauses. The kernel of a solution is found in Stowell (1982), who observes that ECM/raising constructions are temporally dependent upon the main verb of their matrix clause, while control structures need not be.[64] Stowell suggests that by locating tense in COMP, many facts could be accounted for if ECM-type verbs select S (IP) complements, whereas control predicates select S' (CP) complements. While such a view will not exactly be taken here, a fact worthy of consideration is that a nominative DP is licensed in EP non-finite clauses apparently only when there is overt verbal material in COMP.[65]

Developing on Stowell's observation, Martin (1995) proposes that the feature content of T^0 in control structures differs from that of T^0 in

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[64] The reader will note that this is stated vaguely enough to avoid a necessary discussion of the counterevidence which Hornstein (1990) presents to Stowell's initial proposal that control structures are never temporally dependent upon their matrix predicate. I will not proceed along the strict lines of Stowell's analysis far enough to make discussion of Hornstein's concern's necessary.

[65] Notably, the situation in Balkan (Albanian, Modern Greek, Rumanian) subjunctive clauses is remarkably similar to what we find with EP inflected infinitives, in that a nominative DP/*pro* is licensed only when the verb moves into COMP (see, for example, Rivero (1990), Varlokosta & Hornstein (1993), and Watanabe (1993b)). Indeed, the Balkan languages employ subjunctive complements in much the same way that the Germanic and western Romance languages employ infinitival complements, though it is worth observing that any fruitful attempt to extend the analysis of the EP inflected infinitive found here to the Balkan subjunctive (or vice versa; neither of which we attempt here) would necessarily need to assume that the Balkan subjunctive clause is non-finite, or, at least, in Watanabe's terms,

ECM/raising constructions, an idea which I have already adopted in discussion of the Mayan non-finite clauses in §1.4.3.1. The relevant difference in the two types of heads, for Martin, lies in the [tense] feature and its interaction with the [finite] feature. Control and ECM/raising constructions, both [–finite], differ in that the T head of control structures has an unspecified [+tense] feature, while the T head of ECM/raising verbs has a [–tense] feature. The resultant distinctions are schematically illustrated in the chart in (86):

(86)

Type of clause	Feature properties of T^0	Case-checking ability of T^0
finite clause	[+finite] [+tense]	checks nominative Case
?	[+finite] [–tense]	?
control structure	[–finite] [+tense]	checks null Case
ECM/raising construction	[–finite] [–tense][66]	does not check Case

The relevant EP data is represented in (87) and (88):[67]

(87) a. * Eu penso/afirmo [algumas pessoas ter*em* comprado esse livro].
I think/claim some people to-have-3pAGR bought that book
'I think/claim that some people have bought that book'

b. Eu penso/afirmo [ter*em* algumas pessoas comprado esse livro].
I think/claim to-have-3pAGR some people bought that book

c. * Eu penso/afirmo [comprar*em* algumas pessoas esse livro].
I think/claim to-buy-3pAGR some people that book

"defective in tense".
[66] Perhaps subject to parametric variation. See Watanabe (1993a) for discussion.
[67] English glosses are only approximations.

(88) a. Eu lamento/aprovo [algumas pessoas ter*em* comprado esse livro].
I regret/approve some people to-have-3pAGR bought that book
'I regret/approve that some people have bought that book'

b. Eu lamento/aprovo [ter*em* algumas pessoas comprado esse livro].
I regret/approve to-have-3pAGR some people bought that book

c. * Eu lamento/aprovo [comprar*em* algumas pessoas esse livro].

In (87), where the inflected non-finite clause acts as the complement of an epistemic/declarative predicate, the argument licensed as nominative must follow the inflected infinitive. This is contrary to the evidence from embedded complement clauses of factive verbs, where no such constraint on the order of constituents holds, as can be seen in (88). In the (c) examples of (87) and (88), we see that it is a constraint of both types of complement clauses that the main verb does not appear to be able to move past the nominative Case-marked DP.[68]

Following the approach outlined thus far, I first examine the inflected non-finite complement clauses of epistemic/declarative verbs.

I propose that the EP inflected infinitive bears a [+subjunctive] feature. The presence of this feature, I will show, is not only the defining property which distinguishes inflected infinitives from 'standard' infinitives, but also accounts for the availability of nominative Case in the EP inflected non-finite constructions. I propose that, like the feature combination [–finite/

[68] Volitional predicates may never take an inflected non-finite clause as their complement in EP. I will not discuss the relevant data here (see Raposo (1987:98-101) for some discussion), though I suggest below that their impossibility follows naturally from the account offered.

+tense], which is able to license null Case, the feature combination [–finite/ +subjunctive] is also able to license structural case. In EP, this Case is morphologically spelled-out as nominative. A further property of the [+subjunctive] F is that it can only be checked and erased in a checking relation with the feature [+tense], a property of the head T. Such checking erases both features, and I demonstrate that this process provides crucial insights into the properties of non-finite clauses in general, and control structures in particular.

I first briefly consider how this treatment works out in finite clauses, and conclude that the implications are more interesting in their non-finite counterparts. In a finite clause, the [+subjunctive] feature of a (subjunctive) verb must raise to be checked by the [+tense] feature of T^0. Both features are erased, and T^0 is left with only its [+finite] feature. This feature, I assume, is capable of checking nominative case. A derivation, then, is allowed to proceed with nominative case being checked by T^0.[89]

(89) Eu pensava [que êles ganha-ssem o prêmio]
I thought that they win-subjunctive,3p the prize
'I thought that they won the prize'

The situation is not quite as straightforward in the inflected infinitive construction, where T^0 has a [–finite] F. If T^0 is inserted with a [+tense] F,

[89] Note now that the obvious gap in the chart in (86) has been filled in. Finite clauses in which T^0 lacks a [+tense] feature are subjunctive clauses, and T^0 in these clauses checks nominative Case. Semantically, at least, such an analysis makes sense: Subjunctive clauses, by their very definitive, lack temporal specification. I take this up in more detail in Wharram (in prep).

then the inflected infinitive can raise to T^0 to have its [+subjunctive] feature checked. Both features are erased, and T^0 is left encoding only the property [–finite] F. This feature, according to Martin's (1995) proposal, is incapable of checking any Case-feature on its own. As such, we can rule out T^0's insertion into these clauses bearing a [+tense] feature; if it is, the argument which needs to have its Case-feature checked by T^0 can never have that feature checked. Insertion of T^0 encoding [–finite] and [+tense] features into these clauses will always result in an illegitimate derivation.

The alternative is T^0's insertion with [–finite] and [–tense] features. In such a structure, the [+subjunctive] F of the inflected infinitive will not be able to be checked by any property of T^0, and must raise to a position where it can be checked. Recall that I have argued on independent grounds, in §2.2 of this thesis, that C^0 contains an [event] feature, and I suggest here that it is this feature which attracts the [+subjunctive] feature of the inflected infinitive (V^0) to C, raising through T^0. Thus, the present approach ensures, if the [event] feature of C^0 which attracts [+subjunctive] F is strong, that the verb will be carried along to C^0, a fact which appears to characterise these constructions (see Rizzi (1982), Raposo (1987)).

Now consider the non-inflected infinitive counterparts to the forms being discussed, as illustrated in the examples in (90):

(90) a. Eles querem [PRO aprovar a proposta].
'They want to approve the proposal'

(Raposo (1987:86))

b. Eu lamento [PRO ter comprado o livro].
'I regret having bought the book'

The infinitive in these cases has no [+subjunctive] feature to be checked, so if T^0 is inserted into these structures with a [+tense] F, then [+tense] F will remain. Suppose that T^0 is specified for [–finite] and [+tense] features upon insertion into these clauses. Both features remain, and are, together, able to check null Case. PRO, then, can be licensed in *these* clauses, but not when the verb bears a [+subjunctive] F. What about the alternative, where T^0 is inserted with a [–finite] F and an [–tense] F? No [+subjunctive] F is available to combine with [–finite] to check structural Case, and nor can null Case be checked, since no [+tense] feature is available to combine with [–finite] F. The Case-feature of whatever argument is normally checked by T^0 remains unchecked, and the derivation crashes. The alternative is therefore excluded, since it always leads to an illegitimate derivation, and the (non-subjunctive) non-finites *must* be control structures.

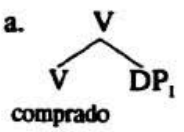
In light of these proposals, I return to examination of the data found in (87), partially repeated here as (91) (I will return to a treatment of the example in (87c)), where the inflected non-finite clause acts as an embedded complement to an epistemic/declarative predicate:

(91) a. * Eu penso/afirmo [algumas pessoas ter*em* comprado esse livro].
I think/claim some people to-have-3pAGR bought that book

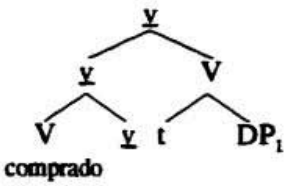
b. Eu penso/afirmo [ter*em* algumas pessoas comprado esse livro].
I think/claim to-have-3pAGR some people bought that book

I will assume the intermediate structures shown in (92) for the derivations which result in the ungrammatical (91a) and the grammatical (91b), respectively, where DP_1=*esse livro* 'that book' and DP_2=*algumas pessoas* 'some people':

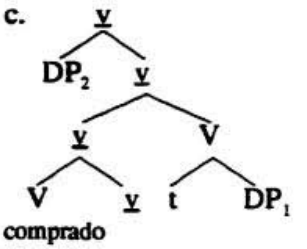
(92) a.



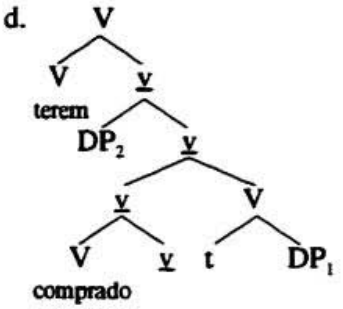
b.



c.



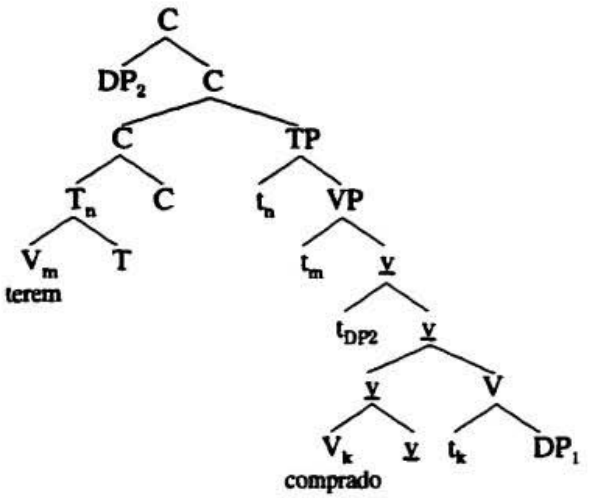
d.



The next step in the derivation following (92d) is to merge T with V, followed by C's merger with T. Here, the strong [event] feature of C^0 has at least two roles to play in the derivation. First, it is responsible for checking the [+subjunctive] feature of V^0. Hence, V^0 raises via X^0-movement to adjoin to C^0. The [event] feature of C^0 is not, of course, [tense] per se, so it is incapable of erasing [+subjunctive] F, though it can check it. Second, the [event] feature attracts the [event] feature of DP_2, the external argument (as discussed in §2.2), and DP_2 raises overtly to [Spec,C] where the feature is

checked, as is its nominative Case-feature by the combination of [–finite] and [+subjunctive] features, contained within C^{0max}. The structure in (93) represents the proposed derivation:

(93)



Covertly, the weak accusative Case-feature of $\underline{v}$ attracts the Case-feature of the internal argument, and $FF(DP_1)$ adjoin to $\underline{v}^{0max}$.

The mysterious availability of nominative case in such constructions now has an account. Still, the obligatory word-order in which the inflected infinitive auxiliary must precede the argument licensed as nominative remains unexplained. For one reason or another, the inflected infinitive auxiliary must raise into a secondary C head, forcing a CP-recursion structure as in (94):

(94) $[_{CP2}\ [_{C1}\ \text{terem}]\text{–}C_2\ [_{CP1}\ DP_2\ t\ [_{TP}\ \ldots\ ]]]$

What I will argue here is that further raising of C^{0max} to adjoin to a higher C^0 is a selectional property of the matrix predicate. Note that my immediate concern is with clausal complements of epistemic/declarative predicates, which take non-propositional (i.e., *eventive*) clausal complements. What is important to note is that epistemic/declarative predicates *require* that their clausal complements have an eventive reading. I will suggest that a clause which lacks temporal specification (that is, any clause which does not contain a T head specified for a [+tense] feature) can be interpreted as relating an event if and only if the [event] feature which I have proposed as a property of C^0 is able to bind all arguments in its clause. If this is so, then an account of the word-order requirements of both epistemic/declarative and factive clausal complements is easily achieved. Epistemic/declarative predicates require their clausal complements to be eventive, so the C head in such clauses, if its Spec position is filled by an argumental category, is obliged to raise to a secondary C^0 in order to bind that argument. Otherwise, the clause is uninterpretable as an event, as required by the selectional properties of the matrix verb. Factive verbs, on the other hand, may take eventive clausal complements, though they are not obliged to do so, selecting also propositional clauses as their complements. Consider again the sentences in (88a and b), repeated here as (95):

(95) a. Eu lamento [algumas pessoas ter*em* comprado esse livro].
I regret some people to-have-3pAGR bought that book

b. Eu lamento [ter*em* algumas pessoas comprado esse livro].
I regret to-have-3pAGR some people bought that book

Telling were my consultant's responses to the above sentences. Translating the sentence in (95b) as "I regret that some people have bought that book", she offered the following for the sentence in (95a): "'I regret it', well, not so much that they bought the book... well... OK, it's more like 'some people bought that book and I regret that I couldn't stop them'."

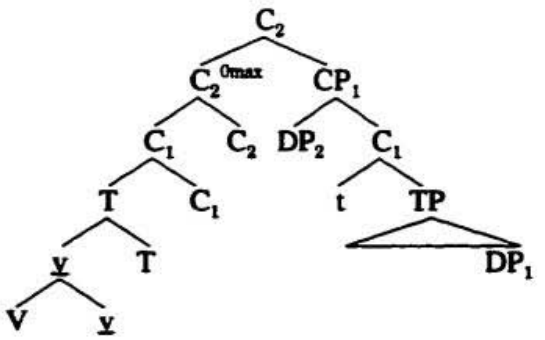
Even more telling is the fact, noted by Raposo (1987:98,*fn*.21)), that the EP inflected non-finite clausal complements of epistemic/declarative matrix verbs require the presence of an auxiliary or modal verb to take the inflectional ending, while clausal complements of factives do not. Observe the contrast in grammaticality between the sentence in (96a) and the one in (96b):

(96) a. * Eu penso [os deputados comprar*em* esse livro].
I think the deputies to-buy-3pAGR that book

b. Eu lamento [os deputados comprar*em* esse livro].
I regret the deputies to-buy-3pAGR that book

Consider the derivation required to represent the sentence in (96a). The verb raises to C^0 to check its [+subjunctive] feature against [event] F. Further, if an eventive interpretation of the clause is required by the matrix predicate, as it is in (96a), the complex head will have to further raise to a secondary C^0 so that the [event] feature can bind the external argument in [Spec,C]. The structure in (97) represents the relevant part of the derivation:

(97)

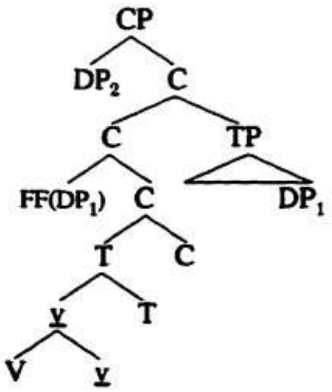


Note, however, that the weak Case-feature of the internal argument, DP_1, has not yet been checked, and must covertly raise to adjoin to C_2^{0max} to be checked by v. In doing so, the obligatory binding relation in EP, where A-arguments asymmetrically c-command O-arguments, is reversed.[70] Thus, the lower clause in (96b) becomes uninterpretable, and the derivation fails.

In (96b), where the C head (specifically, that head's [event] feature) of the inflected non-finite clause is not required to raise past the external argument in [Spec,C], the formal features of DP_1, the internal argument, raise to adjoin to C^{0max} where its Case-feature can be checked by v, deriving (98):

[70] I will. suppose that the uninterpretability of the clause derives from the fact that the [event] F of DP_2 (created on that argument when the verb discharges its event-role, as discussed in §2.2) must bind all other arguments in the clause. In the above case, it cannot.

(98)



Note now that both arguments stand in their typical binding relation to each other (i.e., the A-argument c-commands (the formal features of) the O-argument). The event feature does not bind either argument,[71] though an eventive interpretation of the clause is not required by the matrix verb, so the derivation converges.[72]

Here, too, we have an account of the impossibility of EP inflected non-finite clauses as complements of volitional predicates. Following my proposal in §2.2 above for English that volitional verbs, such as *want*, never select an eventive CP-complement, V^0 can never bear a [+subjunctive] feature in such non-finite clauses, since such a feature could never be checked.

Thus, I have supplied a fairly principled account of the availability of nominative Case in the EP inflected infinitival clause, and of the word-order

[71] Arguably, the [event] feature here is able to bind the formal features of the internal argument, DP_1, as I will suggest below that the feature becomes a shared property of C^{0max}. Important, though, is that the external argument, DP_2, in the proposed representation in (98) cannot be event-bound.

[72] The prediction here is that an eventive reading of the lower clause in (96b) should be

constraint in such clauses acting as complements to epistemic/declarative verbs. Having established that nominative Case-checking is possible within a very restricted set of non-finite clauses, I now return to the construction which prompted such consideration – the Italian APPP.

2.3.4 Italian APPPs (II)

I am now in a position to explain the availability of nominative Case for the T-argument in the Italian APPP. Consider the example in (79a), repeated here as (99):

(99) Arrivata io, Gianni tirò un sospiro di sollievo.
arrived(fs) I(NOM) G. drew a sigh of relief
'I [having] arrived, Gianni was relieved'

Suppose now that what makes nominative Case available in this construction is precisely what makes it available in the European Portuguese inflected non-finite clauses just discussed – the participle in (99), *arrivata*, has a [+subjunctive] feature. Again, Belletti's (1992) observance that APPPs lack full temporal specification seems to tie in well with this type of analysis. Moreover, if the facts of the Italian APPPs can be accounted for along the lines of a subjunctive analysis, Martin's (1995) controlled T^0 as [–finite/ +tense] versus 'raising' T^0 as [–finite/–tense] distinction suggests that no special clausal structure need be attributed to these constructions. That is, unlike Belletti (1992), who suggests – as discussed in §2.3.2 – a reduced

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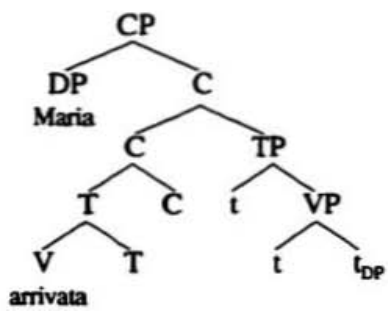
impossible. I have been unable to determine if this is so.

clausal structure for the APPP, in that no T head is present, I will allow for the head's presence.

I now return to the relevant clause in the sentence in (99), and keep to the proposal that the participle there bears a [+subjunctive] F. Familiar from the EP construction just discussed, the participle must raise to position where its [+subjunctive] F can be checked. Consider first the derivation if T^0 is merged into the clause encoding [–finite] and [–tense] features. [+subjunctive] F of V^0 cannot be checked by any feature of T^0 in the derivation, so it must raise, carrying the verb, to adjoin to C^0, where it can be checked by [event] F. The internal (T-) argument is also attracted by the [event] feature of C^0, and raises to [Spec,C], where it can be checked for Case by the feature combination [–finite/+subjunctive].[73,74] The proposed derivation is represented in (100):

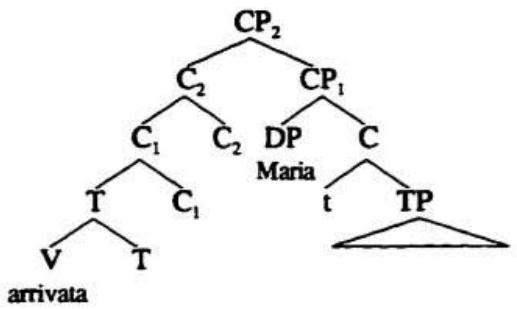
(100)



[73] A more principled, though still stipulatory, account of the obligatory overt raising of the T-argument to [Spec,C] in these clauses than was offered in §2.3.2 above is now possible: [event] F which checks [subjunctive] F is a strong feature in Italian.
[74] As in EP, the Case checked by these features is spelled-out morphologically as nominative in Italian.

The availability of nominative Case in the clauses thus receives an account, though the obligatory *past participle–DP* word order remains unexplained. Again, though, the analysis of the EP inflected non-finites has already provided me with a plausible account. If these clauses must be interpreted as an event, which appears to be the case, then F_{event}(C) must raise to a second C head, as shown in (101), in order to event-bind the T-argument.

(101)

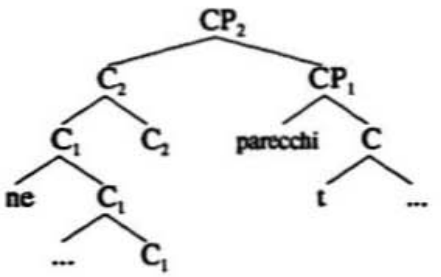


The fact that *ne*-cliticisation cannot take place in unaccusative APPPs – mentioned briefly in §2.3.2, and with the relevant example repeated here as (102) – also follows from this analysis.

(102) *Arrivati*ne* parecchi, ...
arrived(p)-of.them many

The current approach holds that *ne* attaches to C^0, being licensed by some property of that head. It may do so freely in (102), but note that the head must then raise to a secondary C^0, so that the [event] feature can bind the internal argument, deriving the representation in (103):

(103)



The clitic *ne* is now too deeply embedded within the maximal head to bind the argument, as it must, so the impossibility of legitimate *ne*-cliticisation in these clauses is explained.

The well-formedness of the sentence in (99) has now been accounted for, though another possible derivation, in which a T^0 specified for [–finite] and [+tense] features is merged with V, remains to be considered. An immediate account is available, again from the above analysis of the EP inflected infinitives, where it was observed that such a derivation will fail, since T^0 will be left with only a [–finite] feature. The Case-feature of the argument (internal, in the present discussion) will remain unchecked. Nevertheless, we find that the control structure counterpart to the APPP in (99) is perfectly acceptable, as shown in (104):

(104) Arrivata, Maria chiuso il dibattito.
arrived(fs) M. closed the debate
'[Having] arrived, Maria closed the debate'

Apparently, the participle in Italian APPPs can optionally be inserted with a [+subjunctive] F. If the form is subjunctive, a clause like the one in (99) is possible; if the form is non-subjunctive, a control structure obtains. T^0 in the

APPP in (104) must be inserted with a [+tense] feature, in addition to its [–finite] feature, or the internal argument's Case-feature will remain unchecked. In (104), then, [–finite/+tense] T^0 checks null Case, licensing a PRO T-argument. For the unaccusative APPPs, both subjunctive and control structure options are available.

It would, of course, be preferable not to require the stipulation that participles are able to bear [+subjunctive] features only when they appear in APPPs. Better, would be to derive its possibility from some principle that excludes its possibility elsewhere. In this, Belletti's analysis offers several intriguing insights which seem promising, and I examine them now.

First, Belletti observes that the transitive counterparts to the unaccusative APPPs exemplified in (99) and (104) *must* be control structures. That is, the external argument in these clauses may never be lexically realised. Observe the acceptability of the sentence in (79b), repeated here as (105a), versus the total ungrammaticality of (105b) (adapted from Belletti (1992:32)):[75]

(105) a. Conosciuta me/*io, hai cominciato ad apprezzare il mare.
known(fs) me(ACC)/I(NOM) you started to like the seaside
'[Having] known me, you started liking the seaside'

b. * Conosciuta Maria io, ... ***(any order)***
known(fs) M. I(NOM)

[75] For good evidence that the verbs in these clauses are active (i.e., non-passive) transitives, see especially Belletti (1992:31-34).

Following Belletti, I suppose that the external argument here is licensed as PRO (under current assumptions, checked for null Case). We also find that *ne*-cliticisation, quantifying the O-argument, is perfectly acceptable in these clauses, entailing that *ne*, adjoined to C^0, c-commands the O-argument (or its formal features) in these clauses. Observe the perfect acceptability of the transitive APPP in (106):

(106) Salutat*ene* tre, ...
greeted-of.them three
'[Having] greeted three of them, ...'

(Belletti (1992:32))

Consider the required derivation if the transitive participle in (106) were inserted with a [+subjunctive] F. Entailed would be that T^0 be merged into the structure lacking a [+tense] F, and that the participle be attracted (overtly) by $F_{event}(C)$ to check its [+subjunctive] feature. At this point, *ne* could attach to C^0, and the external (A-) argument could raise to [Spec,C] – attracted there by the strong [event] feature of the C head. The external argument should then be licensed for Case by the feature combination [–finite/+subjunctive] of C^{0max}. The clause, however, would lack a [+tense] feature, forcing the [event] feature of C^0 to raise to a position where it could bind the external argument in [Spec,C], so that the clause could receive its required eventive interpretation. This does not seem overly problematic, since it is almost precisely the same derivation which I proposed for the unaccusative APPP in (99) above. Nonetheless, *ne*-cliticisation should not be permitted, contrary to the facts observed in (106), and nominative Case should be available for the external argument, shown in the sentences in

(105) to be impossible. But, observe that the Case-feature of the internal argument has not yet been checked, and must raise covertly to adjoin to C_2^{0max} to be checked by v. This, notably, has come up before, in ruling out the possibility, in European Portuguese, of an epistemic/declarative verb selecting an inflected non-finite complement clause if the inflected infinitive is not an auxiliary. The example I used in (96a) is repeated here as (107):

(107) *European Portuguese*
* Eu penso [os deputados comprar*em* esse livro].
I think the deputies to-buy-3pAGR that book

I suggested that the lower clause in (107) is uninterpretable, since the required binding relation between the arguments is violated when the formal features of the internal argument raise to a position (adjoined to C_2^{0max}) which dominates the external argument (i.e., the [event] F of DP_2 cannot bind $FF(DP_1)$). Since the analysis would appear to carry over fruitfully to the Italian data being discussed, I will keep it here. This, effectively, rules out the possibility of a transitive participle in the Italian APPP constructions being inserted with a [+subjunctive] feature. If it is, the resultant clause will always be uninterpretable.[76]

The requirement that transitive and unergative APPPs be control structures has now been derived, and I can turn my attention to how such clauses obtain. For reasons of space, I will restrict my attention to the

[76] This analysis also accounts, with equal efficacy, for the impossibility of unergative [+subjunctive] participles in these clauses, since the incorporated N will always have to raise with the verb to an embedded position within C_2^{0max}.

transitive cases, suggesting that the unergative derivations proceed with only the obvious differences. The participle, necessarily lacking a [+subjunctive] F as discussed above, still raises to adjoin to T^0 – perhaps attracted there by that head's [+tense] feature, a feature unnecessary, and, hence, disallowed in the subjunctive unaccusative APPP considered in (99). Further raising of T^{0max}, carrying along the participle, is required so that the [+tense] F can be checked against the [event] F of C^0. Note now that C^{0max} encodes a number of features: the [event] F of C; the [–finite] and [+tense] features of T, capable of checking null Case; and the feature of $\underline{v}$ which checks an accusative Case-feature. The external argument, attracted to [Spec,C] by the strong [event] F, raises, and the possibility of a *feature mismatch* – a conceptual assumption which I adopt to rule out a plethora of unwanted derivations –, stated in (60) and repeated here as (108), arises.

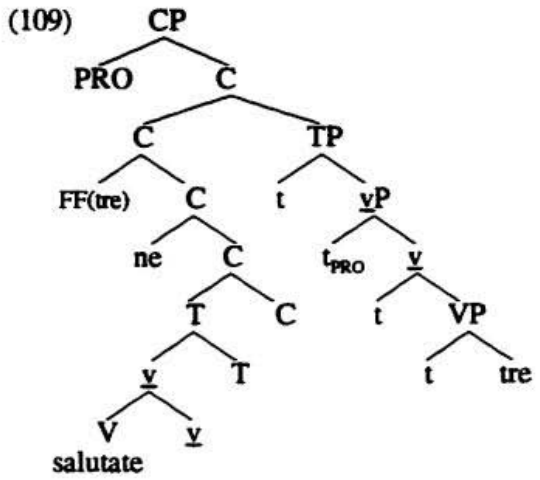
(108) *Feature mismatch*
Mismatch of features cancels the derivation.

(Chomsky (1995:309))

I will claim here, though, that the state of affairs excluded by (108) does not hold for the proposed derivation. Since $\underline{v}$ is more deeply embedded within the maximal head than is T, the [–finite/+tense] features of T enter into a checking configuration with the external argument in [Spec,C] before the [+accusative] F of $\underline{v}$ does. Thus, if the Case-feature of the external argument matches the checking possibilities of T, which here can check only null Case, then the Case-features of both categories erase, and the derivation converges up until this point. The checking configuration established between $\underline{v}$ and

the external argument in [Spec,C] no longer presents a problem: The Case-feature of the argument has already been erased when the configuration obtains, so no mismatch occurs. Consider the proposed representation in (109) for the well-formed transitive APPP in (106):

(109)



That *ne*-quantification of the O-argument in these constructions is legitimate also follows from the proposed representation in (109). The clitic's overt attachment to C^0 is followed by covert adjunction to that head by the formal features of the internal argument, attracted there by the Case-checking feature of v. The clitic, contained within the same head (C) to which FF(internal argument) is adjoined, is able to bind FF(internal argument). Further, the [event] F of C does not have to – and, therefore, does not – raise past the external argument in [Spec,C], since the [+tense] feature of T checks against $F_{event}(C)$. Returning, then, to the concrete example of (106), the external argument, PRO, is checked for its proper (null) Case by the features [–finite] and [+tense]; the external argument, PRO, c-commands the

argument feature of the O-argument, *tre* (in C^{0max}); the clitic *ne* binds the formal features of the O-argument, and can therefore quantify it; and, the clause is interpretable as relating an event, since a [+tense] F is available to check the [event] F of C.

A further intriguing aspect of the Italian APPP which Belletti (1992) observes is that passive APPPs, like their transitive and unergative counterparts, allow only for control structures, disallowing their internal argument from being lexically realised. Thus, the passive APPP stands in contrast to the unaccusative APPP, which, as discussed above, *does* allow for a lexically realised internal argument (see, for example, the sentence in (99)). By all accounts, including my own, this is an unexpected contrast – until this point, I have been treating T- and D-arguments as essentially identical. Consider again the ill-formed sentence in (79d), repeated here as (110a), and compare it with the perfectly grammatical (110b), where the passive APPP is a control structure:

(110) a. * Salutata Maria da Gianni, tutti uscirono dalla sala.
greeted(fs) M. by G. everyone went.out of.the room

b. (PRO) Salutata da tutti, Maria lasciò la sala
greeted(fs) by everyone M. left the room
(Belletti (1992:22,40))

While I will not attempt to present Belletti's analysis here, she proposes that the contrast lies in the passive participle's inability to raise to C^0, from where it can assign nominative Case to the argument in the Spec position of its

complement AgrP (see the partial representation in (80)).[77] This is essentially the same proposal that Belletti offers for the impossibility of a lexically realised A-argument in the transitive and unergative APPPs. Specifically, she argues that a transitive verb, an accusative Case-assigner, is prevented from moving into C^0, also a position from which Case is assigned. Adopting, as do I, a Baker, Johnson, & Roberts (1989) analysis of passivisation which assigns the passive morphology an argumental status, Belletti argues that the transitive analysis should carry over to the passives, as well: The passive participle retains its Case-assigning status, and is prevented from raising to C^0, where a Case conflict would obtain.

If transitives are, in fact, restricted from raising to COMP in these clauses, then Belletti's argument that passives should also be restricted from doing so is convincing.[78] However, the observant reader will notice that I have proposed that the transitive participle in these APPPs *must* raise to C^0, a requirement driven by overt attraction of the [+tense] feature of T by the [event] feature of C^0 (see the representation in (109). Belletti's analysis would then seem to be incompatible with the present account. Nevertheless, our common assumption that the passive morphology has an argumental status offers me a fairly simple explanation for the ungrammaticality of the sentence in (110a). The passive APPP found there is, in fact, ruled out for exactly the same reason that the non-controlled transitive and unergative

[77] Short shrift, indeed, for what I find to be her extremely interesting analysis. However, for lack of time and space, it will have to suffice.
[78] In the framework adopted here, this proposal might translate into a localised principle

APPPs in (105b) and (79c), respectively, are. Consider, briefly, the by-now familiar derivation required to produce the APPP in (110a). Again, the participle will be inserted specified for a [+subjunctive] feature, necessitating that T^0 be merged into the structure lacking a [+tense] F. The participle will eventually have to raise to a second C head, carried there by the requirement that the [event] feature of C raise to a position from which it can bind the D-argument in [Spec,C] – necessitated by the clause's lack of temporal specification (i.e., a [+tense] F of T^0). The passive morphology is now in a position that dominates the D-argument, and the required binding relation between the arguments in the language is reversed, resulting in an uninterpretable derivation.[79] The control structure for passive APPPs is, therefore, forced.

While my analysis of the Italian APPPs differs from that of Belletti's, it shares her view that the ill-formedness of non-controlled passive APPPs should be explained via the same mechanism that rules out non-controlled transitive and unergative APPPs. Further, the analysis proposed would appear to account, with equal facility, for certain facets of both the inflected non-finite clauses found in European Portuguese and the Italian APPP without need of substantial, or any, modification. Along the way, some insights into the nature of non-finite clauses in general, and control structures in particular, were gleaned.

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restricting $\underline{Y}^0$'s movement into C^0.

[79] Here, far broader insights into the more general requirement that passives in the languages being presently discussed (i.e., the Romance languages, in addition to English) be

2.5 Concluding remarks

All 'subjects', then, I have argued, are not entirely created equal. Chapter One discussed some of the properties of human language that do appear to group A-, S-, T-, and D-arguments under the label, to the exclusion of O-arguments. The present chapter, however, began with a reexamination of the standardly assumed 'subject'/'object' extractability asymmetry, and it was strongly suggested that the asymmetry, at least for English, could not be strictly maintained. While assertion of a distinction between A- and S-arguments and T- (and D-) arguments is certainly not new, dating back at least to Perlmutter's (1978) *Unaccusative Hypothesis*, the analysis which followed showed the distinction between the two types of arguments to necessarily go further than simply positing their insertion/generation in different A-positions.

A certain clause in Italian in which T-arguments may be lexically realised, while A-, S-, and (most interestingly) D-arguments may not, was then considered. The analysis of the construction which I offered, an extension of my account of the European Portuguese inflected non-finite clause, differs from Belletti's (1990,1992) analysis of same. Common to both analyses, however, is the conclusion that the unavailability of lexically realised A-, S-, or D-arguments should be explained by essentially the same mechanism in each case.

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selected by an auxiliary verb might be drawn.

The most promising definition of 'subject', then, is that the term refers to whatever argument (or its formal features) occupies a higher position than all other (if any) arguments within its clause. Given this, observing that a subject always binds an object is somewhat akin to stating that X>Y because X>Y. The observation may be true, but it is not very interesting. It says nothing about what constitutes X, what properties of X make it ">Y", nor what the value of X is. These questions are immeasurably more interesting, and I have begun to address them in this chapter. I continue along this line in the final chapter.

CHAPTER III

E^3 revisited: Ergativity, economy, and [event]

3.1 Preliminaries

In Chapter One of this thesis, I suggested that the absence, or near absence, of transitive non-finite control structures in ergative languages is derivable from the fact that arguments checked for null Case (i.e., licensed as PRO) in such languages do not typically occupy a position where they can be controlled from a higher clause. My proposal there was somewhat imprecise, but, in light of the developments in the previous chapter, I am now in a position to offer a more principled account of why this is the case.

That said, constraints of time and space will allow only a preliminary glance at what I consider to be two of the more intriguing characteristics of ergative languages in general. The first, which received brief consideration in Chapter One, is that A-arguments in ergative languages, as in accusative languages, appear to asymmetrically bind O-arguments.[80] The second, a characteristic common to many of the ergative languages, is that A-arguments are totally restricted from undergoing A'-extraction, such as

[80] Though see Johns (1996) for discussion of a construction in one Inuktitut dialect, Labrador Inuttut, where this is not so obvious.

relativisation and *wh*-movement. On this latter point, I will restrict my attention to the Inuktitut languages.

I will argue, in what follows, that whether a language has an ergative pattern of Case-checking or an accusative pattern of Case-checking is determined strictly in terms of economy, depending on the strength of certain features. I will demonstrate below, for example, that the very different Case patterns of, say, English and Inuktitut, essentially derive from a single, relatively minor feature strength parameter: In English, the Case-feature of T^0 is weak; in Inuktitut, it is strong.

3.1.1 On 'crossing' versus 'nested' paths

Recent years have seen considerable discussion of 'crossing' versus 'nested' path movement of D/NP arguments in ergative languages. It has been claimed that nested paths are, in fact, ruled out of the grammar of natural languages by principles of economy (see Bobaljik (1993), Chomsky (1993), among others), and that structural ergative case must be associated with nominative Case as being checked by [+finite] T^0 (possibly in the Spec position of an Agr head dominating TP). Such claims are contrary to those of, for example, Bittner (1987), Johns (1987,1992), Campana (1992), Murasugi (1992), and Phillips (1994b) (see also Bittner (1994) and Bittner & Hale (1996b) for related conclusions), where it is argued that absolutive Case is – in the terms of the framework assumed here – checked by a feature property

of T^0. The analysis which proceeds here adapts and then adopts the latter view, and demonstrates that some apparent problems for this approach that are raised in Bobaljik (1993) can be dealt with while still maintaining many of Bobaljik's theoretical assumptions.[81]

That is, I argue that structural ergative is checked by a property of $\underline{v}^0$, and that it can be checked overtly on a category in [Spec,$\underline{v}$] by the Case-feature of $\underline{v}^0$ if that Case-feature is strong. Chomsky (1995), on the other hand, argues against the availability of [Spec$_1$,$\underline{v}$] as a legitimate checking position. Since my analysis will contend that features can, in fact, be checked in this position, it is worthwhile examining Chomsky's reasoning for excluding this option.

3.1.2 When Merge meets Arg

The exclusion is motivated, in part, by consideration of elements such as *whether*, *if*, and, in many cases, expletives. Such categories are able to, or *must*, satisfy other features while remaining in their Merged (that is, base) position. Taking an example, *whether* in (111) is base-generated in the Spec position of a C^0 with a strong Q-feature, and is able to satisfy that feature in that position:

(111) (I've never questioned) [$_{CP}$ *whether* C^Q [Jessie Helms is a fascist]]

[81] In particular, I follow Bobaljik in my assumption that Binding conditions hold only at LF (see Chomsky (1993 et seq.)).

So, at least in some cases, the operation Merge can create a checking position. But Chomsky argues that the generalisation cannot carry over to cases of merger of an external argument, DP_2, with $\underline{v}$, thereby allowing DP_2 to carry the Case checked by $\underline{v}$ (for the current discussion, I will refer to the structural Case checked by (finite) T^0 as *Case X*, and that checked by $\underline{v}^0$ as *Case Y*). Chomsky achieves this by excluding extension of the operation Attract to the merger of arguments, appealing to the notion that an argument constitutes a nontrivial chain CH=(α,*t*), where α has raised for feature checking and *t* is in a θ-position (Chomsky (1995:311-312)). I will take what I consider to be a more *minimalist* approach, claiming that an argument/nonargument distinction in this respect is unmotivated, and that the unwanted derivations can be excluded by principles already available to the theory.[82]

3.2 The economy of {erg|accus}ativity

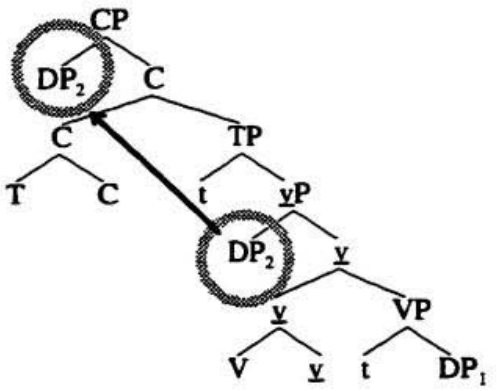
I claimed above that some of the most salient syntactic differences between a language like English and one like Inuktitut could be accounted for by a single parameter determining the strength of the Case-feature of T^0. I will now explore how this could be, keeping first to those clauses projected from strictly transitive (i.e., not unergative) verbs. First, I briefly review the derivation which I proposed for standard English transitive clauses in §2.1.2 of this thesis.

[82] In the following section (§3.2), DP_1 and DP_2 should be read as interchangeable with *internal argument* and *external argument*, respectively.

3.2.1 English: Accusativity forced

First, I adopted Higginbotham's (1985) proposal that an <event> role is one of the theta-properties of a predicate, and that this role is discharge by a verb at the point where T is merged with the verbal projection (see §2.2). Further, I suggested that a specific type of D-feature – an [event] feature – is created on the argumental category closest to the binding position of this role, and that this feature is overtly attracted to [Spec,C] by a strong [event] feature of C^0. $F_{event}(C)$ also, I proposed, overtly attracts the [tense] feature of T^0, and T^0 raises to adjoin to C^0, deriving the Spell-Out representation in (112):

(112)



The external argument, DP_2, is checked overtly for case, by some feature of T^0 when it raises to adjoin to C. The internal argument's Case-feature is attracted by $\underline{v}$ in the covert syntax, and $FF(DP_1)$ raise to adjoin to $\underline{v}^{0max}$. The maximal head $\underline{v}$ further raises at LF to adjoin to C^{0max}, so that the verb can be checked for its various T- and V-features.

T^0 lacking a strong feature, nothing is attracted to adjoin to that head or substitute into its Spec position overtly. Overt raising of the external argument is forced only by attraction to strong $F_{event}(C)$.

So far, I have been considering only the derivation forced if the external argument is inserted with a Case X feature and the internal argument with a Case Y feature. What happens if the external argument is inserted with a Case Y feature and the internal argument with a Case X feature (that is, I am arguing, the canonical state of affairs in ergative languages)? Again, assuming the UTAH (Baker (1988)), the internal argument (DP_1) is inserted as the sister of V^0, and the external argument (DP_2) is merged with $\underline{v}$. It is not at all apparent that the operation Merge places DP_2 in a checking relation with $\underline{v}^0$, since $\underline{v}^0$ in this case, I have suggested, lacks a strong feature with which to 'attract' an argumental feature. More obvious would be the case if DP_2 remains in [Spec,$\underline{v}$] and the Case-feature of $\underline{v}^0$ remains unchecked throughout the overt syntax. Covertly, when the Case-feature of $\underline{v}^0$ becomes 'syntactically active', the Spec-head relation should constitute a legitimate checking configuration. I will propose, then, the principle informally stated in (113), to be taken as a property of the operation Merge:

(113) Merger of α with β places α and β in an immediate checking configuration iff β contains some strong feature capable of entering into a relation with some feature of α, where β is any head (or feature) contained within β^{0max}.

DP_2, however, is still the recipient of the event-role of the transitive verb, and its resultant [event] F is attracted by strong $F_{event}(C)$, carrying along the entire category to [Spec,C], with its Case-feature as yet unchecked. Recall, though, that I have argued independently that $F_{event}(C)$ also attracts the [tense] F of T^0, and T^0 raises overtly to adjoin to C^0. Subsequently, the Case X feature of T^0 and the Case Y feature of DP_2 enter into a checking configuration, and the derivation is canceled by (108). The standardly assumed pattern of Case checking in English – DP_2 by T^0; DP_1 by $\underline{v}^0$ – has now been forced, at least for the strictly transitive clauses.

For the unergatives, I have argued that the incorporated internal argument always enters into a possible checking relation with $\underline{v}$ before the external argument does, by virtue of a strong feature requirement of $\underline{v}^0$ that V^{0max}, carrying the incorporated argument, must raise to check before $\underline{v}$ can be merged with further structure. The Case-feature of $\underline{v}^0$ always being checked prior to the external argument's insertion into a legitimate derivation, the insertion of DP_2 with a Case X feature, able to be checked by T^0, is forced if the derivation is to converge. The internal argument of an unaccusative, too, must be specified for a Case X feature, since unaccusatives do not project a $\underline{v}$ head, and, therefore, no possibility for the checking of a Case Y feature exists.

The state of Case checking affairs has now been fixed for English: The Case-features of A-, S-, and T-arguments can only be checked by some

property of T^0; the Case-features of O-arguments and the (incorporated) complements of unergative predicates can only be checked by a property of $\underline{v}^0$. Any such argument bearing features not conforming to the above specifications which is inserted into a derivation will force that derivation to crash. What, then, is the forced derivation of a clause if T^0 is specified for a strong Case-feature? I turn to this now, claiming that the result is an ergative pattern of Case-checking.

3.2.2 Inuktitut: Ergativity forced

Maintaining the same set of assumptions as I did above for English, where the Case-feature of T^0 was proposed to be weak, the arguments of unergatives and unaccusatives should pattern identically with respect to their Case-features there, whether the Case-feature of T^0 is strong or weak, since their required Case-feature association is established before T^0 is projected. Consider, though, the derivation of a transitive clause under these circumstances.

Suppose, first, the state of affairs required in English, where the external argument is specified for a Case X feature upon its insertion, and the internal argument for a Case Y feature. T^0, when merged, has a strong Case X feature which overtly attracts DP_2 into its Spec position. The Case X features of both categories are checked and erased, and C is merged with T(P). Strong F_{event}(C) then attracts the [event] F of DP_2, created on that

argument when it receives the event-role of the transitive verb, and DP_2 raises to [Spec,C]. Covertly, the Case-feature of DP_1 raises to $\underline{v}^{0max}$, attracted by the Case Y feature of that head. $\underline{v}^{0max}$ then raises to adjoin to C^{0max}, so that the verb can check its features against T, and, possibly, C. The derivation would appear to converge, all required features being checked. Call this *derivation A*.

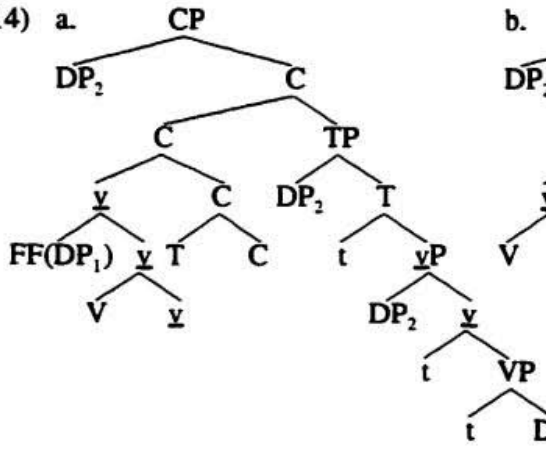
Consider now, however, the alternative *numeration*, where the external argument is selected with a Case Y feature, and the internal argument with a Case X feature.

V^0 still raises overtly to adjoin to $\underline{v}^0$, as it must, to check $\underline{v}$'s strong V-feature(s). The external argument, merged with $\underline{v}$, does not enter into a checking configuration with any feature of $\underline{v}^{0max}$, by (113). T^0 is projected, and its strong Case X feature is satisfied by the internal argument's raising to [Spec,T], attracted overtly by that feature. C is then merged with T(P), and the [event] F of C attracts T^0 (specifically, its [tense] feature). The [event] F of DP_2, created in its theta-marking, is also attracted by strong $F_{event}(C)$, and DP_2 raises directly from [Spec,$\underline{v}$] to [Spec,C] prior to Spell-Out. DP_2 cannot be checked for Case in the overt syntax, but at LF, either its copy in [Spec,$\underline{v}$] can be checked by the Case Y feature of $\underline{v}$ *in situ*, or, more likely, its copy in [Spec,C] can be checked by $\underline{v}$ when $\underline{v}^{0max}$ necessarily raises to adjoin to C^{0max} to be checked against T, contained within that maximal head. Notice that the initial substitution of DP_2 into [Spec,C] does not present a possible Case

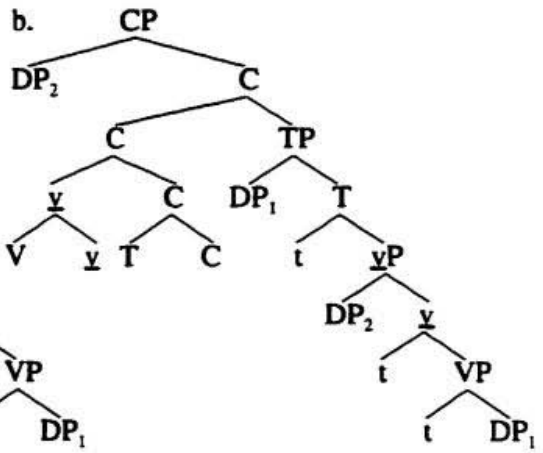
mismatch violation between the Case Y feature of DP_2 and any feature of T, contained within C^{0max}: T at this point has no Case-feature, it being already both checked and erased against DP_1 in [Spec,T]. So, this derivation – call it *derivation B* – would also appear to converge.

I am left with two possible LF representations, both competing to derive the transitive clause of whatever, if any, language I am attempting to analyse. Consider the proposed LF representations of *derivation A* and *derivation B* in (114a) and (114b), respectively:

(114) a.



b.



But, in fact, only the derivation in (114b) can converge, since the *numeration* selected for the derivation in (114a) results in a less economical derivation than the one that results in (114b). In (114a), the operation Attract/Move must apply twice overtly to raise DP_2 to [Spec,C], and, covertly, it must apply once in raising $FF(DP_1)$ to adjoin to $\underline{v}^{0max}$. In (114b), on the other hand, two overt applications of the operation, once on DP_1 and once on DP_2, are sufficient to move the arguments into their respective Case-checking position.

$\underline{v}^{0max}$, containing V, must raise to C^{0max} at any rate to be checked against T, and checks the Case Y feature of DP_2 as a "free rider", a costless operation. The representation in (114a) violates economy, and so is ruled out as a legitimate derivation. Economy forces the Case-feature of DP_1 to be checked by some feature of T^0, and the Case-feature of DP_2 to be checked by some feature of $\underline{v}^0$. Economy, in essence, forces ergativity in such a clause, and the result is the Case checking patterns of a language like Inuktitut.

Consider the basic Inuktitut sentences in (115), where the verb in each is transitive:

(115) a. anguti-up arnaq taku-vaa
man-ERG woman(ABS) see-ind,3s/3s
'the man sees/saw the woman'

b. arna-up tuktu niri-vaa
woman-ERG caribou(ABS) eat-ind,3s/3s
'the woman eats/ate the caribou'

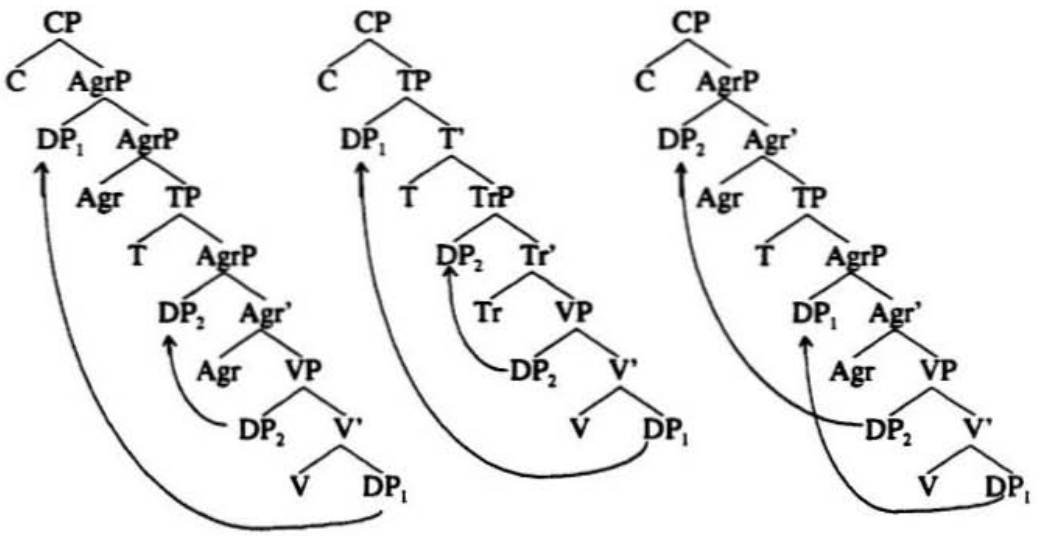
(Johns (1987:17,40))

Under the approach here, the A-argument in the above sentences occupies [Spec,C] and the O-argument occupies [Spec,T] at the point of Spell-Out to the phonological component of the grammar. The unmarked SOV word-order of the language is also derived, the verbal complex contained within $\underline{v}^{0max}$ only raising to adjoin to C^{0max} at LF. The movement of DPs does not technically create 'nested' paths, as in the ergativity analyses of both Campana (1992) and Murasugi (1992), though it roughly shares their conclusions regarding which Case is associated with which head: Structural absolutive Case is

checked by [+finite] T^0, and structural ergative Case is checked by a feature of $\underline{v}^0$.[83]

As Bobaljik (1993) observes, however, both Campana's and Murasugi's analyses of a transitive clause in an ergative language propose that the absolutive DP is checked for Case in a position which dominates the position where the Case-feature of the ergative DP is licensed. For convenience of reference, I provide, in (116) and (117), the representations of an (ergative) transitive clause proposed by both researchers, in addition to Bobaljik's proposed representation of such a clause, shown in (118) (ignoring, in each case, possible X^0-movement):

(116) **Campana (1992)** (117) **Murasugi (1992)** (118) **Bobaljik (1993)**



[83] Interestingly, while the proposal here adopts essentially the same sort of Case-checking relations proposed in Campana (1992) and Murasugi (1992) for ergative languages, it suggests that the D/NP movement which derives the viability of these checking relations proceeds in a manner that shows much parallel to the type of movement that Johns (1987,1992) proposes in her 'nominalist' analyses of Inuktitut.

The representations proposed by both Campana (116) and Murasugi (117) predic , incorrectly, Bobaljik points out, that O-arguments in ergative languages should bind A-arguments in transitive clauses if Binding conditions hold only at LF, an approach which he assumes. The fact is not especially problematic for either Campana or Murasugi, since they both take the view that Binding relations can be established at S-Structure. The fact is important here, however, since I have adopted Bobaljik's assumption of Binding as an LF phenomenon. Consider again, however, the derivation proposed in (114b), which, in fact, makes the correct prediction under current assumptions. The A-argument, checked for Case in [Spec,C] at LF, does not undergo reconstruction back into [Spec,v], and it can properly bind the O-argument in [Spec,T].

The availability of anaphoric O-arguments taking A-argument antecedents in ergative languages, then, is expected, as are the Weak Crossover effects in Basque which Bobaljik points out. Bobaljik (1993:58) suggests that the required Binding relations observable in ergative languages make an analysis positing the absolutive Case of ergative languages and the nominative Case of accusative languages to be checked by the same head impossible to maintain. However, the Binding concerns raised in Bobaljik (1993) with such an approach (as is found here), effectively disappear under the current proposal, since the analysis here holds that the O-argument

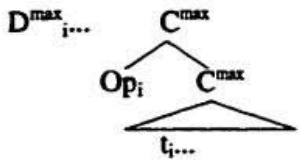
checked for absolutive Case in [Spec,T] *is* c-commanded by (the formal features of) the A-argument, checked for Case by y in [Spec,C].

Under this account, DP movement in an unaccusative clause in a language like English is identical to the DP movement forced in an unaccusative clause in a language like Inuktitut. In both languages, the sole argument is inserted as the complement of V^0, and receives an [event] F by virtue of receiving the event-role of the predicate. The argument raises overtly to [Spec,T] – in English, attracted there by a strong D-feature (see §2.1); in Inuktitut, attracted by a strong Case-feature –, its Case-feature is checked by some property of T^0, and it then raises to [Spec,C], its [event] F attracted by strong $F_{event}(C)$. Unergative clauses, too, proceed somewhat similarly in the two types of languages, though with one notable difference: In English-type languages, S-arguments raise directly to [Spec,C] to be checked for both their Case and [event] features; in Inuktitut-type languages, S-arguments also raise to [Spec,C], but must raise via [Spec,T], driven there to satisfy the strong Case-feature of T^0 before further structure (i.e., C) can be merged. As such, we should expect S-arguments in Inuktitut to pattern alike to T- and O-arguments in their accessibility to extraction, unlike the situation in English, where S- and A-arguments pattern alike, in this respect (see §2.1). A further, though less obvious, prediction is that A-arguments in Inuktitut should be totally unavailable for overt A'-extraction. I will take this up briefly now.

3.2.2.1 Relativisation in Inuktitut

Although I am not aware of a totally satisfactory account of the structure of the relative clause (for some suggestions, see, among many others, Chomsky (1973), Abney (1987), Rizzi (1990), and Law (1991b)), I assume that it at least involves a relative head and a co-indexed operator in COMP, as shown in (120) for the English relative clause in (119):[84]

(119) The dog that buried the bone.

(120) 

In Inuktitut, relativisation of S- and O-arguments may proceed directly, to the exclusion of A-arguments. Transitives verbs must be antipassivised – essentially resulting in their A-arguments becoming S-arguments – in order that their external argument may be available for relativisation. This is illustrated in the examples in (121), where (121a) shows a relativised S-argument and (121b) a relativised O-argument. (121c) demonstrates the unavailability of the A-argument to relativise until it is derived, via antipassivisation of the verb, into a S-argument (121d):

(121) a. angut imngi-lauq-tuq quviasuk-tuq
man(ABS) sing-pst-part.intr,3s happy-part.intr,3s
'the man who sang is happy'

(Johns (1987:162))

[84] Vague, to be sure, but sufficient for my present purposes.

b. nutaraq taku-ja-ra qimak-tuq
child(ABS) see-part.tr-1s/3s run away-part.intr,3s
'the child who I saw ran away'

(Johns (1987:162))

c. * anguti-up arnaq kunik-taa
man-ERG woman(ABS) kiss-part.tr,3s/3s
'the man who kissed the woman'

d. angut arna-mik kunik-si-juq
man(ABS) woman-COM kiss-AP-part.intr,3s
'the man who kissed the woman'

(Murasugi (1993b:6))

More precisely, then, the relativised element in Inuktitut must be an argument which is checked for absolutive Case, a fact well-noted in the literature (see, more recently, Johns (1987), Murasugi (1992), Manning (1994), and, particularly for West Greenlandic, Fortescue (1984) and Bittner (1994)). Johns further observes that in double object constructions, only the non-oblique argument is available for relativisation, as shown in (122) (from Johns (1987:156,157)):[85]

(122) a. angut pilauti-mik arna-up tuni-jaa angaju-ga
man(ABS) knife-COM woman-ERG give-part.tr,3s/3s brother-poss,1s
'the man that the woman gave the knife to is my brother'

b. * anguti-mut pilaut tuni-jaa angaju-ga
man-ALL knife(ABS) give-part.tr,3s/3s brother-poss,1s
'the man that he gave the knife to is my brother'

A fact of the relative construction in Inuktitut which should be noted early on is that it involves a relative head followed (not necessarily immediately) by

[85] *angaju-ga*, glossed here for the sake of simplicity as 'brother', comes into English, according to Alana Johns (personal communication), more as 'a sibling of the same sex'.

the participial form of the verb.[86] Murasugi (1992) considers the participial construction in Inuktitut to be [–finite], allowing only 'absolutive' arguments to be relativised by first having their Case checked by a [+finite] C^0, an approach motivated by her analysis of the European Portuguese inflected infinitive construction. Given the participial form's wide-spread appearance on the matrix verb in Inuktitut (though, notably, not in West Greenlandic (see Bok-Bennema (1991) and references cited therein and Fortescue (1984))), I will assume this not to be the case.[87]

I will now demonstrate that the total restriction on the availability of the A-argument for relativisation in Inuktitut follows from the analysis offered so far.

Recall that I have argued that the A-argument raises directly from [Spec,$\underline{v}$] to [Spec,C] in the overt syntax to check its [event] feature against $F_{event}(C)$, and that its Case-feature remains unchecked until LF, when $\underline{v}^{0max}$ raises to adjoin to C^{0max}. Relativisation, placing a null Operator in a secondary COMP and further extracting the argument, creates a chain which, by all accounts, views the trace/copy of DP_2 in [Spec,C_1] as an intermediate link in a non-uniform A'-chain (with its head as Op in $COMP_2$

[86] Both the indicative and participial mood are standardly available for matrix (declarative) predicates. While participial forms can show up in other constructions as well (see Dorais (1988), Bok-Bennema (1991), Johns (1992), Mallon (1993), Manning (1994)), indicative marking is restricted to the main verb. In most dialects of Inuktitut, the indicative mood marker is found as /v/ after a stem ending in a vowel and as /p/ after a stem ending in a consonant, while /j/ is found as the participial mood marker after a stem ending in a vowel and /t/ after a stem-final consonant.

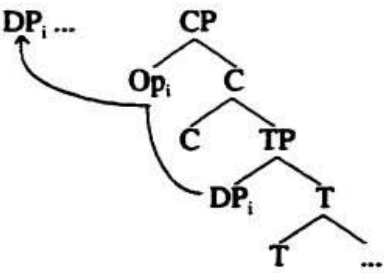
[87] An alternative analysis of the European Portuguese inflected infinitive was given in §2.3.3.

and its tail occupying [Spec,v]). The copy of DP_2 in [Spec,C] therefore deletes, and its formal features reconstruct to the copy in [Spec,v], where the argument's Case-feature can be checked by v at LF. However, the result is that the [event] F of DP_2, although checked by $F_{event}(C)$, no longer binds the O-argument in [Spec,T], and the derivation crashes as uninterpretable. The unavailability of A-arguments undergoing relativisation is thus derived, and the account equally predicts that A-argument A'-extraction of any type should be impossible in Inuktitut. The prediction is the correct one, though I will not pursue the issue here.

Consider now the Inuktitut sentence in (121d), which shows that the external argument of an antipassivised transitive verb may be freely relativised. I adopt the view that antipassivisation, like passivisation, checks the Case-feature of v. On the basis of evidence from Mayan data discussed in Wharram (1996), however, I suggest that the difference between the two types of processes is that while the passive morphology absorbs the *agent*-role of the verb, the antipassive morphology absorbs the *event*-role of the verb.[88] Given this sort of approach, the grammaticality of the sentence in (121d) is expected, the partial Spell-Out representation in (123) showing its proposed derivation (ignoring the possibly adjoined position of the lexically Case-marked internal argument):

[88] Future research will investigate the possibility of deriving the absence of antipassivisation in accusative languages, given the analysis contained here.

(123)



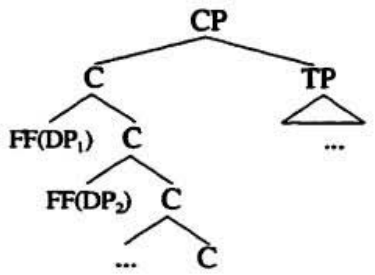
3.2.3 Mayan: Ergativity forced

Consider now another possibility. That is, consider the type of checking relations which would be forced in a language in which the head $\underline{v}$ is always specified for a strong Case-feature, while the Case-feature of T^0 remains weak. The required Case-feature properties of the internal arguments of unergatives and unaccusatives which could result in a legitimate derivation should remain as discussed above, their feature either being checked by $\underline{v}^0$ prior to the S-argument's merger with $\underline{v}$ (as in the case of unergatives), or their Case-feature being checked (covertly) by T^0, determined by the total lack of a $\underline{v}$ head (as in the case of unaccusatives). By (113), however, any and all A-arguments merged with $\underline{v}^0$ will be checked for (ergative) Case by that head, *in situ*. Again, an ergative pattern emerges.

The proposed [event] feature of C^0 – and of the A-argument now, too – remains to be considered. Keeping to an attempted explanation of some of the characteristics of the Mayan group of languages, suppose that the feature in question is weak, attracting the formal features of the argument carrying the [event] F only at LF (as I have proposed, in §2.3, to be an option in

Italian). If the [tense] F of T^0 *is*, however, overtly attracted to C^0 by that head's [event] F, some rather substantial concerns regarding the argumental binding relations that hold at LF are raised. Observe that the formal features of the A-argument, being closer to C^{0max} than the O-argument, should raise covertly to adjoin to C^{0max}, so that $F_{event}(C)$ can check $F_{event}(DP_2)$. The Case-feature of T, contained within the maximal C head, should then attract the formal features of the O-argument, DP_1, to raise to adjoin to C^{0max}, deriving the partial representation in (124):

(124)



The [event] F of DP_2 in (124), however, cannot bind the formal features of DP_1, and the derivation is ruled out. I conclude, then, that if $F_{event}(C)$ is weak, in the sense that it does not overtly attract the [event] F of an argument, it also does not overtly attract $F_{tense}(T)$.

But further consideration reveals that the problem for transitives, in fact, remains, even if the [tense] feature of T^0 raises to C^0 to be checked only at LF.[89] The illegitimate LF representation in (124) remains unchanged. So,

[89] The same problem for unergatives never arises, since the incorporated internal argument is embedded deeply enough in the maximal head to be c-commanded by the formal features of the A-argument.

if such a derivation is to converge, T must be blocked from raising to C^0. This, of course, essentially nullifies my argument that T raises to C because its [tense] feature must be checked against $F_{event}(C)$. If such raising must be blocked here, then what checks $F_{tense}(T)$? I am suggesting that the type of language that I am describing is exemplified in the Mayan languages, and I will show below that some of these languages obligatorily introduce special morphology which is able to check the [tense] feature of T^0, when T^0 is unable to raise to C^0. Another option, too, should be available, in which T^0 raises to C^0 covertly, after the formal features of the internal argument have adjoined to T^0 to be checked for Case. The formal features of DP_2 should then raise to adjoin to C^{0max}, and be able to bind $FF(DP_1)$. In the following, I will refer to the former strategy as *Option A*, and the latter as *Option B*. In general, the Mamean and Quichean Mayan languages choose *Option A*, while the great majority of the other Mayan languages choose *Option B*. It is argued elsewhere (Wharram (1996)) that which option a language chooses determines the relativisability of the A-argument in that language.

Consider the basic clauses in (125), taken from two Mayan languages, where the verb in each is transitive:

(125) a. *Tzotzil* (Mayan: Cholan, western Guatemala)

I-Ø-y-il	ti	pale-e
asp-3sABS-3sERG-see	the	priest-Encl

'the priest saw it'

(Aissen 1993 (:6))

b. *Mam* (Mayan: Mamean, northwestern Guatemala)

ma	chi	kub'	t-b'iyo-'n	Xwaan	xiinaq
rp	3sABS	dir	3sERG-hit-ds	Juan	man

'Juan hit the man'

(England (1983:141))

Under the account here, the A-argument occupies [Spec,$\underline{v}$] at Spell-Out, where it is checked for Case by $\underline{v}^0$, and the O-argument remains in its position as the complement of V^0 (or its trace). As can be observed in the sentences above, and as was discussed in Chapter One, the unmarked word-order in the Mayan languages is VSO, so the verbal complex in $\underline{v}^{0max}$ must raise to T^0 in the overt syntax, presumedly to check a strong V-feature of T^0. The derivation of the Tzotzil sentence in (125a), I propose, selects *Option B*, discussed above, and T^{0max} further raises to C^{0max} at LF. The derivation of the Mam sentence in (125b) follows along the lines of *Option A*, T^{0max} remaining in its Spell-Out position throughout the covert syntax. The verbal affix *-'n*, glossed here as a *directional suffix*, I propose elsewhere (Wharram (1996)), is generated in T^0 and serves to check the [tense] feature of that head.[90]

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[90] This verbal suffix, termed by England (1983) as the *directional suffix*, (/-'n/ or /-n/ in Mam; /-j/ in Quiché) appears on all main transitive verbs. Campana (1992) observes, however, that there are some cases where this suffix appears to be optional in basic transitive clauses, as is shown in (i):

(i) *Mam*

a.

ma	chi	t-tzeeq'a-ya
rp	3pABS	2sERG-hit-cl

'you hit them'

(England (1983:174))

b.

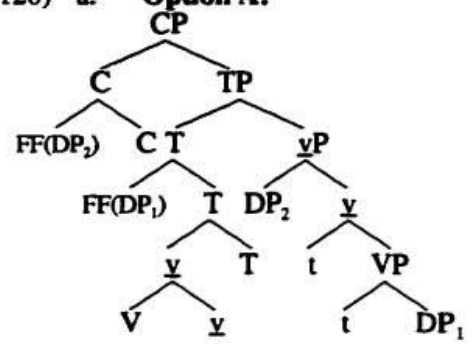
ma	chin	ok	t-tzeeq'a-n-a
rp	1sABS	dir	2sERG-hit-ds-cl

'you(s) hit me'

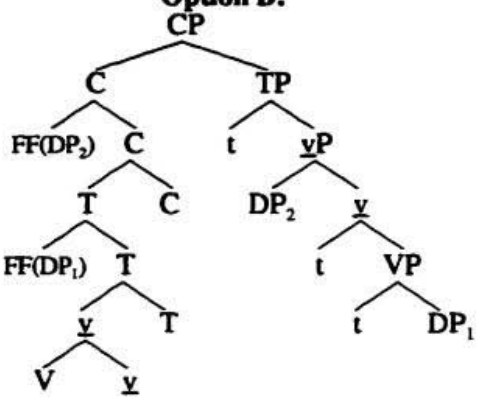
(Campana (1992:30))

The LF representations of the derivations of transitive clauses and unergative clauses which I propose to hold generally for the Mayan languages are given in (126a) and (126b), respectively:

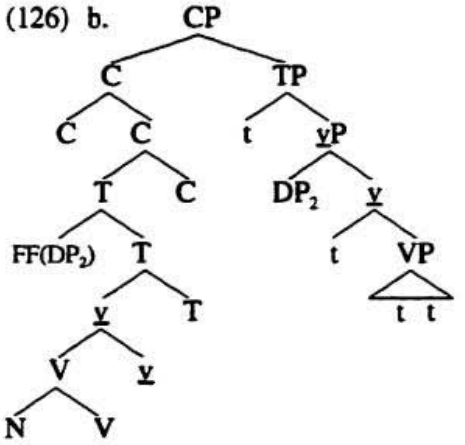
(126) a. **Option A:**



Option B:



(126) b.



However, the optionality of the suffix in such sentences in Mam is extremely restricted. According to England (1983), its occasional absence in elicited data is due to "repeated questioning", and that

> **... to all intents they are obligatory since Mam speakers do not like transitive verbs without directionals and will not use them. (p.170)**

I will assume this to be the case. The suffix's presence in clauses from which relative or *wh*-extraction of a A- or O-argument has taken place is, at least, obligatory, and I am aware of no piece of elicited Mam data of this type where the suffix is absent.

3.3 Conclusion

In this thesis, I have introduced what I believe to be some rather intriguing contrasts in a number of languages which are quite unexpected if current assumptions hold, and have offered a preliminary alternative analysis. Further, I have offered a strictly Economy-based account of the phenomena of accusativity and ergativity which is, I think, compelling on at least two levels. First, it supports the general direction in which the current theory appears to be heading – for lack of a more enlightening term, a strictly *minimalist* account of the human language faculty. Second, the discussion in Chapter Two illustrated how the introduction of a single feature into a derivation could change that derivation substantially. Given this, the appearance of ergative and accusative 'splits' should become much less mysterious in a theory in which Case checking relations are determined on a purely economical basis.

It need not be said, but: clearly, further research is called for...

FIN

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