



National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

CASE AND SYNTACTIC GEOMETRY

Máire B. Noonan

Department of Linguistics

McGill University, Montreal

July 1992

A Thesis submitted to the Faculty of Graduate Studies
and Research in partial fulfillment of the requirements
of the degree of DOCTOR of PHILOSOPHY.

© Máire B. Noonan 1992



National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file: Votre référence

Our file: Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-80270-7

Canada

Acknowledgements

I would here like to express my gratitude for the advice and patience of my thesis supervisor, Mark Baker, whose special attention over the last couple of weeks made it possible to lay this thesis to rest in a stunningly short time. Without doubt, his inspiration is reflected throughout my work. Special thanks to Lisa Travis, not only for being a great "source" linguistically speaking, but also for always being very encouraging. Thanks to many other members of the Department at McGill University, among them Mengistu Amberber, Jean-Charles Beaumont, José Bonneau, Kathy Burns, Ornella Cavaliere, Nicole Domingue, Marc Fabiani, Eithne Guilfoyle, Leslie de Freitas, Alan Juffs, Zofia Laubitz, Alan Libert, John Matthews, Anna MacLachlan, Jonathan Mead, Dean Mellow, Michel Paradis, Glyne Piggott, Benjamin Shaer, Mireille Tremblay, Lise Vinette, and Lydia White. A million thanks to Benjamin Shaer for a huge amount of editorial help. Special thanks also to Leslie de Freitas, collaboration with whom gave me inspiration and momentum.

Many contacts outside McGill — some very brief, some others not so brief — during my time as a student have had an impact in varying ways, academic and personal: thanks to Joseph Aoun, Jonathan Bobaljik, Richard Carter, Máire Ní Chiosáin, Sandy Chung, Hartmut Czepluch (my first teacher), Ken Hale, Ilan Hazout, Paul Hirschbühler, Hero Janßen, Kyle Johnson, Richard Kayne, Angelika Kratzer, Utpal Lahiri, Harry Leder, Dón Lón, Gyanam and Anoop Mahajan, John Macnamara, Jim McCloskey, Feargal Murphy, Conn O Cleirigh, Jaye Padgett, David Pesetsky, Betsy Ritter, Alain Rouveret, Anna Szabolcsi, Roger Schwarzschild, Ur Shlonsky, Dominique Sportiche, Tim Stowell, Daniel Valois, Karina Wilkinson, Edwin Williams, and I am sure I forget some.

Für liebe Unterstützung aus der Weite danke ich meiner Familie in Deutschland, (vor allem Oma und Heidi!), also and especially Hilda Gardner, Thomas J. Gardner (my second teacher, and the one who inspired me to consider linguistics), Uwe Heidborn, und Anne und Ken Muller. More support from the far side of the atlantic came from Gillman Noonan, Máire Noonan (not myself!) and my little sister Aileonóra in Scotland; Christina Balas in Paris, Moskau, Siberien oder wo auch immer; Louis Lézard à Paris, à Dublin oder wo auch immer und vielleicht auch nicht; Amala Reddy and Riaz Khan, Moni and Pat Hseu. In Ireland, a million thanks to Máire Ní Chiosáin, for her help with the Irish data, but of course also for much much more than that! Thanks also to her parents, Helen and Séamas O Ciosáin; to Eamon O Ciosáin and Anna Ní Ghallagher much thanks for providing their judgements.

For making a big difference in more local domains, I wish to thank les Balas, (especially Dominique, and Loulou!), Diane Letendre, Louis Taillefer, Brian Hawker, Jean and Hendrick duPlessis, Jody Davis, Anne Purcell, Maeve Guilfoyle, Thomas Gardner, Nimuë, and Sinouhé Túcan.

Traurig, daß meine Mutter Bärbel Noonan die Beendigung dieser Arbeit nicht miterleben konnte. Bis heute begleitet mich ihr Vertrauen, ihre Ermutigung und ihre unermüdliche Willenskraft, ohne die ich sicher vieles nicht geschafft hätte. Der Bogen, den sie mir gespannt hat, läßt sich noch immer spüren. I dedicate this thesis to her memory.

CASE AND SYNTACTIC GEOMETRY

Máire B. Noonan

McGill University

ABSTRACT

The first part of this thesis addresses the following questions: where in the syntactic tree, and at what representational level is an NP Case-checked. To this end, it presents converging data from French, Welsh and Irish, which suggest (i) that Case-checking may be accomplished under a variety of functional projections (subject to parametric variation); and (ii) that Case positions are — at least partially — independent of the A/A'-distinction. It furthermore presents evidence from Irish and Welsh — VSO languages in which NPs typically raise to their Case position only at LF — that NPs are, under certain conditions, Case-checked at S-structure.

Chapter 2 investigates word order and cliticisation in Standard French and Quebec French interrogatives and proposes a typology of interrogatives. Chapter 3 and 4 account for complementizer variation, pre-verbal particles and agreement patterns in Welsh and Irish under a Case-theoretic approach.

The second part of this thesis concerns the conditions on the availability of structural accusative Case. A theory of structural Case is proposed according to which accusativity is a configurational rather than a lexical property — i.e., resulting from syntactic geometry and not from lexical feature specifications on verbs. To this end, a comparison between the syntactic mapping of stative and perfective predicates in Irish and English is undertaken.

Résumé

La première partie de cette thèse s'adresse aux questions suivantes: où, dans la structure syntaxique, et à quel niveau de représentation, la vérification du cas s'opère-t-elle? Dans cette perspective, il est présenté des données du français, du gallois et de l'irlandais qui convergent vers les conclusions suivantes: (i) la vérification des propriétés casuelles peut se faire dans différentes projections fonctionnelles (dont le choix est sujet à des variations paramétriques); et (ii) les positions casuelles sont, au moins en partie, indépendantes de la distinction A/A'. Cette étude présente aussi des arguments basés sur des données de l'irlandais et du gallois — toutes deux des langues VSO dans lesquelles les syntagmes nominaux ne se déplacent en général vers leur position casuelle qu'en forme logique — montrant que la vérification du cas des syntagmes nominaux peut sous certaines conditions s'effectuer en S-structure.

Le chapitre 2 porte sur les problèmes d'ordre des mots et de cliticisation dans les constructions interrogatives du français et du français québécois et propose une typologie de ces constructions. Les chapitres 3 et 4 expliquent, par des considérations casuelles, les conditions qui président au choix des complémentiseurs, la distribution des particules pré-verbales et les schémas d'accord.

La deuxième partie de cette thèse porte sur les propriétés qui conditionnent la disponibilité du cas accusatif. Une théorie du cas structural qui tient l'accusativité pour une propriété configurationnelle plutôt qu'une propriété lexicale, c'est-à-dire une propriété émergeant de la géométrie syntaxique et non pas d'un attribut idiosyncratique des verbes, est présenté. Dans cette perspective, je compare la réalisation syntaxique des prédicats d'état et des prédicats perfectifs en irlandais et en anglais.

Presenter You have a new theory about the brontosaurus.
Miss Elk Can I just say here Chris for one moment that I have a new theory about the brontosaurus.
Presenter Exactly. *(he gestures but she does not say anything)* What is it?
Miss Elk Where? *(looks round)*
Presenter No, no your new theory.
Miss Elk Oh, what is my theory?
Presenter Yes.
Miss Elk Oh what is my theory that is. Well Chris you may well ask me what is my theory.
Presenter I *am* asking.
Miss Elk Good for you. My word yes. Well Chris, what is it that it is — this theory of mine. Well, this is what it is — my theory that I have, that is to say, which is mine, is mine.
Presenter *(beginning to show signs of exasperation)* Yes, I know it's yours, what is it?
Miss Elk Where? Oh, what is my theory? This is it. *(clears throat at some length)* My theory that belongs to me is as follows. *(clears throat at great length)* This is how it goes. The next thing I'm going to say is my theory. Ready?
Presenter Yes.
Miss Elk My theory by A. Elk. Brackets Miss, brackets. This theory goes as follows and begins now. All brontosauruses are thin at one end, much much thicker in the middle and then thin again at the far end. That is my theory, it is mine, and belongs to me and I own it, and what it is too.
Presenter That's *it*, is it?
Miss Elk Spot on, Chris.
Presenter Well, er, this theory of yours appears to have hit the nail on the head.
Miss Elk And it's mine.

Chapman et al. 1989, vol. 2: 118–19

Table of Contents

Chapter 1: Introduction.....	1
1. Issues.....	1
1.1. Case and A'-chains.	1
1.1.1. Assumptions.	1
1.1.2. Issues.....	8
1.2. Case and Event Structure.	12
1.2.1. Observations.....	12
1.2.2. Assumptions.	14
1.3. Case-checking and Case Determination.	16
Chapter 2: Operators and Case.....	17
2. Introduction.....	17
2.1. A theory of Operator Licensing.	18
2.2. French Interrogatives.....	22
2.2.1. Simple Interrogatives.....	22
2.2.2. Complex Inversion.....	23
2.2.3. Long Distance Spec-licensing.....	29
2.2.4. Implications of Iota Climbing.....	31
2.2.4.1. Pronoun Inversion.....	31
2.2.4.2. Stylistic Inversion.....	33
2.2.5. IOTA, Case, and the clitic.....	36
2.2.5.1. The function of the clitic.....	36
2.2.5.2. Ramifications of the iota = nom Hypothesis: A "Least Effort Grammar".....	39
2.2.6. The Clitic [+ WH]-INFL.....	41
2.3. Québec French.....	43
2.3.1. Reanalysis of the Clitic.....	45
2.3.2. Consequences of Reanalysis.....	46
2.3.3. Clefts. 48	
2.3.4. Adjunction to IP.	50
2.4. Summary and Conclusions.....	52
2.4.1. A Typology of Interrogatives.	52
2.4.2. Languages in Flux.....	52
Chapter 3: Case, Functional Heads and A'-Chains in Welsh.....	55
3.0. Introduction.....	55
3.0.1. Case, Word Order and Subject Agreement.....	55
3.0.2. A Generalised Theory of Structural Case..	57
3.0.3. The Welsh Data.....	59
3.1. Agreement in Non-Relative Structures.....	62
3.1.1. The data.....	62
3.1.2. Analysis.....	63
3.2. Agreement in Relative Clauses.....	71
3.2.1. Background.....	71
3.2.2. Deriving the Indirect Pattern.	74

3.2.3. Deriving the Direct Pattern.....	76
3.3. Wh-Questions and Clefts.....	78
3.4. Negative Relatives.....	80
3.4.1. Negated Subject Relatives.....	80
3.4.2. Negated Object Relatives.....	82
3.4.2.1. No Agreement.....	82
3.4.2.2. Object Agreement on Negation.....	86
3.5. Object Agreement on Other Functional Heads.....	90
3.5.1. What and where is AgrOP.....	92
3.6. Conclusion.....	93
3.6.1. Case under Comp.....	94

Chapter 4: Case at S-structure in Irish.....	96
4. Introduction.....	96
4.1. Agreement.....	97
4.1.2. Pronoun Movement.....	100
4.1.2.1. Preposition pied-piping.....	100
4.1.2.2. Pronoun-postposing.....	102
4.1.3. Coordinate NPs and agreement.....	105
4.1.3.1. Suffixal elements of pronouns and NPs.....	109
4.1.3.2. Coordinate NPs revisited.....	116
4.1.4. Agreeing and non-agreeing tenses?.....	119
4.2. Infinitives.....	123
4.2.1. The Progressive Construction.....	123
4.2.2.1. Word Order in Infinitives and the Verbal Particle <i>a</i>	126
4.2.2.2. Munster Irish vs Northern Dialects.....	130
4.2.2.3. The Earliness Principle.....	138
4.2.3. Summary.....	143
4.3. A-bar Chains and Case.....	144
4.3.1. The Data.....	144
4.3.2. aL and Case.....	149
4.3.3. The Indirect Strategy.....	152
4.3.3.1. An Indirect Strategy in German?.....	153
4.3.3.2. Deriving the Condition on Chains.....	154
4.3.4. The Direct Strategy.....	155
4.3.5. The Highest Subject Restriction.....	162
4.3.5.1. Economy and Case.....	165
4.4. Long distance movement.....	169
4.4.1. Indirect strategy.....	169
4.4.2. Direct strategy.....	172
4.4.2.1. Wh-agreement.....	174
4.4.3. Infinitives.....	178
4.5. Summary and speculation.....	181

Chapter 5: Case, Events and Argument Structure.....	184
5. Introduction.....	184
5.0.1. Statives.....	185
5.0.2. The Case of participles.....	187
5.1. Syntactic Projection and Accusativity.....	190
5.1.1. Burzio's Generalisation.....	190
5.1.2. Deriving BG.....	191
5.2. Statives.....	194
5.2.1. Hale & Keyser (1990).....	195
5.2.2. Events and Aspect.....	196
5.2.3. Syntactic projection of statives.....	197
5.2.4. HAVE.....	199
5.3. Perfectives.....	201
5.3.1. Participle Morphology.....	202
5.3.2. Perfective Aspect.....	203
5.3.3. Auxiliary <i>have</i>	204
5.3.3.1. Predicate coindexation.....	208
5.3.3.2. <i>Have</i> with unaccusatives.....	209
5.3.3.3. Word order.....	210
5.4. Possessives.....	213
5.5. Conclusion.....	214
 Chapter 6: Conclusion.....	 216
References.....	221

Chapter 1

Introduction

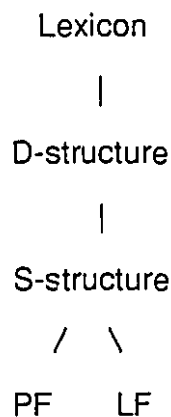
1. Issues. This thesis (which is mine) naturally divides into two parts, both having to do with the theory of abstract Case. The first asks where in the syntactic tree and at what representational level an element is Case-checked; the second asks what the necessary conditions for structural Case are (where the focus is on accusative Case). I will start by outlining the issues involved in the first part.

1.1. Case and A'-chains. The first part concerns itself mostly with word order and markers, such as clitics, agreement, pre-verbal particles, as they appear in A'-constructions in English, French, Welsh and Irish. This is somewhat surprising, since usually the Case module is associated with the "A-system" — that is, A-positions, A-movement, and A-chains. However, I will attempt to show here that the site of Case checking can interact in interesting ways with the formation of A'-chains .

1.1.1. Assumptions. This thesis is written within what is commonly referred to as the Government and Binding (GB) framework. The aim of this approach to language is to construct a theory of Universal Grammar (UG) (i) that accounts for the logical problem of language acquisition — that is, how children learn the highly complex grammar of a given language in such a short time and with so little (and deficient) evidence; and (ii) that allows and accounts for language variation. I will present a brief outline of the main theoretical

assumptions of the GB framework as they pertain to the investigation of this work.¹

UG is structured into subcomponents whose relation to each other is shown in the following diagram (often referred to as the T-model). Each of the subcomponents has its individual properties, and interacts in principled ways with the other subcomponents.

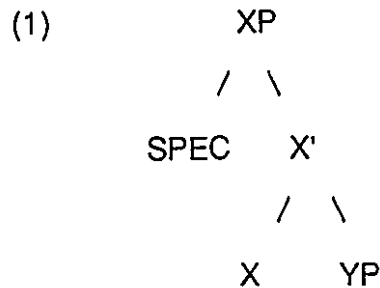


Moreover, UG consists of a set of principles and conditions that constrain some or all of the subcomponents above. These principles belong to modules of the theory such as bounding theory, government theory, Case theory, binding theory, and theta-theory. The modules relevant to this thesis are X'-theory, Case theory — which is closely linked to government theory and theta theory, and which accounts for the distribution of overt NPs —, and to a certain extent bounding theory, which concerns locality conditions on chain formation, mostly derived by movement.

¹ See Chomsky 1981 for a thorough description of the framework.

X'-Theory

X'-theory constrains syntactic trees and assumes that all syntactic heads project bar levels according to the following template:



The clausal categories S and S' are generalized to the X'-template and project as IP and CP (see Chomsky 1986b). While linear order is subject to parameterisation (head initial/final parameter, specifier to the right or the left), hierarchical order is assumed to be universal (see Travis 1984 among others).

Move α and chains

The operation move α is directly related to X'-theory by the requirement that movement be structure-preserving. Structure-preserving movement for substitution movement implies that maximal projections must move into specifiers² and X^0 elements must move into head positions. For adjunction movement, it implies that maximal projections can adjoin only to maximal projection and heads can adjoin only to heads (see Chomsky 1986b).³

² The fact that movement can never be into complement position is guaranteed by the Theta Criterion, as complement positions are by definition theta marked positions.

³ Structure-preservation for adjunction movement is less widely accepted than for substitution movement. Adjunction is furthermore constrained by the categories that may be adjoined to: arguments such as NPs, CPs, PPs do not permit an element to be adjoined to them for reasons of theta visibility (see Chomsky 1986b).

Move α involves chain formation, and can be divided into A-chain formation and A'-chain formation. A-chains are typically chains formed when an element moves to an argument position. Originally this was understood as a position which could be assigned a theta role, such as internal positions within lexical projections and Spec/IP. However, in recent years it has been argued that all arguments are base-generated within projections of lexical categories V, N, A, and P. In particular, there is now a general consensus on the VP Internal Subject Hypothesis (VPISH) (Kuroda 1985, Kitagawa 1986, Koopman & Sportiche 1988) — that is, the hypothesis that the subject is not base-generated in Spec/IP, but within the maximal projection of VP.⁴ The VPISH, which implies that Spec/IP is no longer a potential theta position, has made it necessary to redefine the notion of A- and A'-position. The distinction is now described in terms of L-related and non L-related positions (see Mahajan 1990: 10), as defined below:

- (2) a. L-related positions: Specifiers and complement positions of a lexical item and functional heads projected from it.
- b. Non L-related positions: All other position including Spec/CP and adjunction positions.

For ease of discussion I will continue to refer to A- and A'-positions in this thesis. This should be understood as being equivalent to L- and non L-related positions.

⁴ However, see, e.g., Kratzer 1989, Duffield 1991, and Aoun & Li to appear for different views.

Case theory

At the heart of Case theory we have the Case Filter, as stated under (3), which has its origins in Rouveret & Vergnaud 1980 and Chomsky 1981.

(3) CASE FILTER

*NP if NP has phonetic content and has no Case.

The Case Filter accounts for the ill-formedness of the following examples, each of which contain an NP with phonetic content but does not receive Case:

- (4) a. * John to win the battle seems obvious.
- b. * It seems John to win the battle.
- c. * It was broken the vase.
- d. * John arrived himself in a mess.

Case assignment is constrained by the requirement of government. A Case-assigning head assigns Case to an NP that it governs. A definition of government is given under (5):

- (5) x governs y iff for all ϕ , a maximal projection, ϕ dominates $x \Leftrightarrow \phi$ dominates y . (Aoun & Sportiche 1983: 214)

(5) states that a head governs all positions within its maximal projection, including the specifier position. Originally, it was assumed that (transitive) verbs, prepositions and tensed Infl assign Case to an NP they govern.

Case theory interacts with the theory of movement in that movement to a Case position is typically an instance of A-movement, i.e. movement to an L-

related position, and movement from a Case position typically is A'-movement, i.e. movement to a non L-related position.⁵

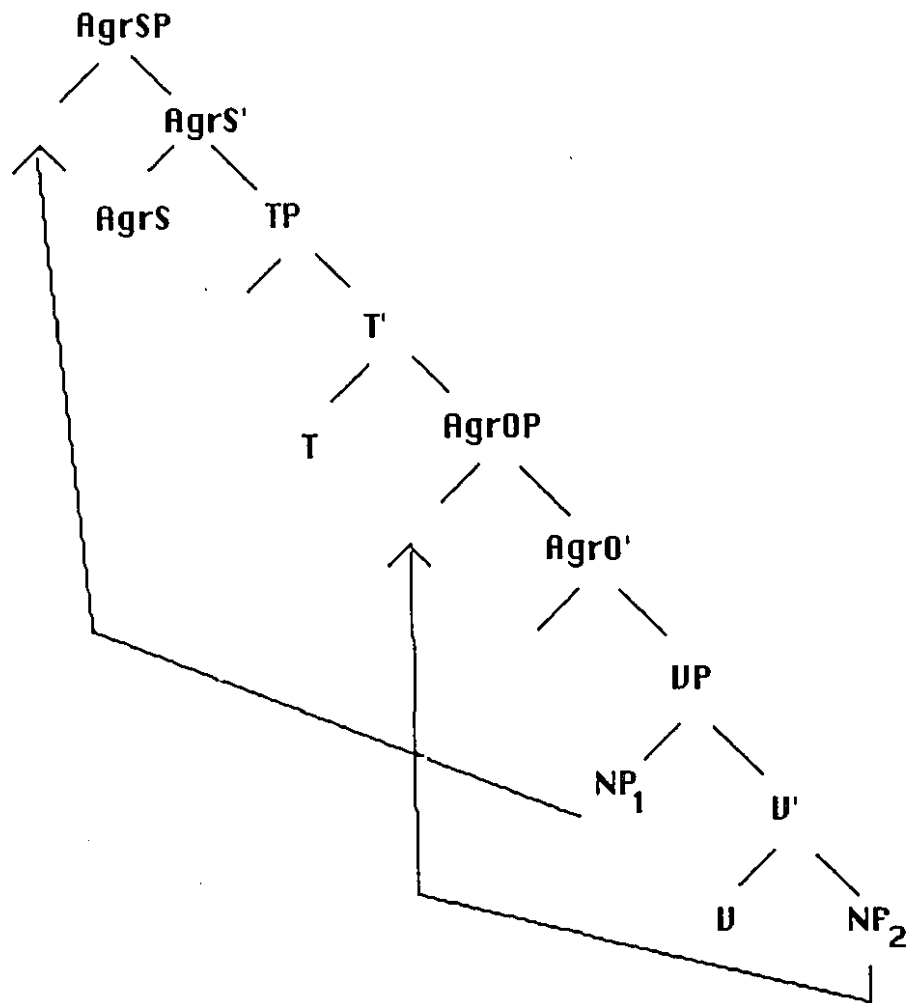
In recent years, Case theory has been recast under a different set of assumptions (Chomsky 1990, Mahajan 1990). Under this new Case framework, all structural Case (i.e. nominative and accusative) is thought of as a checking device that exists under a specifier/head configuration. Both the subject and the object are assumed to undergo movement to the specifier of a functional category, AgrP.⁶ Nominative Case is assumed to be checked under an AgrP that dominates a [+ T], and accusative Case to be checked under an AgrP that dominates a Case-assigning verb.⁷ This is illustrated in the following syntactic tree diagram:

⁵ See Sportiche 1984, Chomsky 1981.

⁶ See also Sportiche 1990, Johnson 1990, which assume that movement is not necessarily to the specifier of a functional category, but may also be to Spec/VP. However, for Johnson, Case is still linked to a functional category (μ).

⁷ See Pollock 1989 and Chomsky 1988 on the "Split Infl Hypothesis" — that is, the division of I into the functional heads TP AgrSP and AgrOP.

(6)



It is in this domain that this thesis will make its biggest contribution, arguing that there is a variety of functional categories that may provide Case-checking positions (their ability to do so subject to language variation); and that Case can be checked under an A'-projection. Furthermore, the Case Filter will be seen as a subcase of a more general licensing condition, namely the Specifier Licensing Condition, which also includes operator-Case assigned under CP.

(7) SPECIFIER LICENSING CONDITION (SLC)

Specifiers must be licensed by CASE.

It has been suggested that the Case Filter can be derived from the visibility condition (see Aoun 1981, Chomsky 1981). Assuming that some kind of visibility also holds for operators, we arrive at the following claim: that operators must be in an A'-scope position and NPs in a scope position related to an inflectional category such as Tense, Aspect, Mood, etc. in order to be visible. If that is the case, NPs necessarily raise to a specifier of a functional category — either at S-structure or at LF (subject to parameterization). The SLC requires them to be licensed appropriately, where “appropriately” means by a head that identifies the grammatical function of the NP in order to prevent ambiguity.⁸ In this way, the Case Filter can be derived entirely from visibility in conjunction with the SLC.

1.1.2. Issues. Below I introduce the language-particular areas that will be covered in the individual chapters.

Auxiliary inversion

In chapter two, I will be concerned with the question of subject auxiliary inversion (SAI) as we find it in interrogatives and certain other constructions in English and German. In particular, I will address the question why inversion is obligatory in a matrix context, and why impossible in an embedded context. This will yield a partial theory of operator licensing. The theoretical conclusions of that section will be applied to analogous constructions in French, which display

⁸ But see chapter 4.

somewhat different behaviour. In particular, I will consider the complex inversion construction in French, illustrated below:

- (8) Quand Jacques va-t-il venir?
when J. will-he come

This construction raises the following questions: (i) what is the position of the subject *Jacques*? (ii) what is the function of the clitic? and (iii) how does this construction compare with subject auxiliary inversion in English and German? It will be argued that French lacks SAI altogether, and that the function of the clitic is directly related to the function of SAI in English, and can be accounted for by the theory of operator licensing of the operator in Spec/CP.

Interrogatives in Quebec French

The complex inversion structure from Standard French will then be argued to have been reanalysed in Quebec French, resulting in a typological switch in the latter language with respect to interrogative formation. In particular, constructions of the following type will be explained:

- (9) Je peux-tu utiliser le téléphone?
I can-tu use the telephone
'Can I use the telephone?'

In this section, I will present a typology of interrogatives distinguishing languages that employ *wh in situ* from those that employ syntactic *wh*-movement.

Relativisation and agreement in Welsh

In chapter 3, I will examine agreement patterns in Welsh A'-constructions. Welsh has two different relativisation strategies, which are commonly referred to as the "direct" and "indirect", and which apply to subjects and direct objects of tensed verbs, and to all other elements, respectively. The two strategies are distinguished by (i) complementizer variation and (ii) different agreement patterns on the heads governing the relativisation site:

(10) DIRECT STRATEGY:

- a. y dynion a ddarllenodd ____ y llyfr
the men comp read-3s the book
'The men who read the book.'

- b. * y dynion a ddarllenasant y llyfr
the men comp read-3pl the book
'The men who read the book.'

(11) INDIRECT STRATEGY:

- a. y llong y gwnaeth Sion ei gwerthu
the boat comp did-3s John 3s sell
'the boat that John sold'

- b. * y llong y gwnaeth Sion gwerthu
the boat comp did-3s Sion sell
'the boat that John sold'

Analyses have traditionally accounted for these two strategies in terms of movement and non-movement (or resumptive) strategies; here they will be

reanalysed and accounted for under a Case-theoretic approach, which makes relativisation in Welsh seem less distinct from that in other languages than has hitherto been assumed. Conclusions will be drawn about the site of Case-checking in an A'-movement context, as well as about the relation between certain functional projections, such as NegP, and Case-checking.

Pre-verbal particles in Irish

Chapter 4 addresses the issue of the level of representation at which elements are Case-checked. Although Irish, with VSO order and no subject agreement on its finite verbs, is viewed as a language where NPs typically raise to their Case position at LF only, a number of constructions will be presented in which NPs appear to raise to their Case position at S-structure, and which thus argue for a revision of this claim. Among these constructions are infinitival structures like that given below:

- (12) Ba mhaith liom [Seán an caora a mhea]
I-would-like Sean the sheep to weigh
'I would like John to weigh the sheep.'

These constructions display movement of the object to the left of the verb, in conjunction with the appearance of a preverbal particle *a*.

Also, Irish, like Welsh, has two different relativisation strategies which distinguish subjects and objects of finite verbs from other structural positions, and which are distinguished by complementizer variation and agreement patterns on the heads governing the relativisation site.

(13) a. DIRECT:

An fear a bhí sásta.

the man aL was content

'the man who was content'

b. INDIRECT:

An bord a bhfuil an leabhar air.

the table aN is the book on-3s

'the table that the book is on'

It will be shown that, with relatively minor adjustments, the analysis of Welsh can be extended to Irish, thus making Irish also look less idiosyncratic with respect to A'-binding constructions. Furthermore, the preverbal particles in infinitives and those in the direct relativisation strategy will be reduced to one and the same phenomenon: namely, to a reflex of a Case-checking configuration at S-structure.

1.2. Case and Event Structure. The second part of the thesis, chapter 5, addresses the condition on accusativity, and presents a theory of structural Case that views accusativity as a configurational rather than a lexical property, resulting from syntactic geometry and not from lexical feature specifications on verbs.

1.2.1. Observations. A well-known correlation between accusativity and verb types has been stated as Burzio's generalization (henceforth BG) (Burzio 1986: 185):

(14) $\text{Theta}_S \text{ <----> A}$

(14) states that a verb assigns accusative Case if and only if it assigns an external theta role. In this chapter, I will investigate two types of predicates that bear on the issue of accusativity: statives and perfectives. These differ considerably in their syntactic realisation in Irish and English.

In particular, we find that Irish stative predicates are consistently realised as nominal constructions:

- (15) a. Tá gaeilge ag Fliodhais.
is Irish at Fliodhais
'Fliodhais knows Irish.'
- b. Tá eagla roimh an bpúca ag Ailill.
is fear before the Puca at Ailill
'Ailill fears the Puca.'

This contrasts with languages like English, German, and French, where statives frequently map onto transitive verbs such as those in (16).

- (16) a. John loves/hates/fears Mary.
b. Hans liebt/haßt/fürchtet Maria.
c. Jean aime/déteste/craint Marie.

As for perfectives, we observe that they are unaccusative in Irish:

- (17) a. * Tá Sean déannta é.
aux S. do(participle) it (acc.)

- b. Tá sé déanta ag Seán.
aux it(nom.) do(participle) at Seán
'Sean has done it.'

This contrasts with English, German, and French, for example, where perfective participles seem to retain their ability to assign accusative Case:

(18) She has seen the film before.

Both observations will be reduced to an independent syntactic property that distinguishes Irish from English, German, French, and other languages, namely that Irish lacks a lexical entry for auxiliary/main verb *have*.

These paradigms will be used to develop a universal theory of how verbal argument and event semantic structure maps onto syntax, and of how verbal syntax in turn determines patterns of structural Case.

1.2.2. Assumptions. What remains to be added to my outline of theoretical assumptions is a theory of argument projection into the syntax.

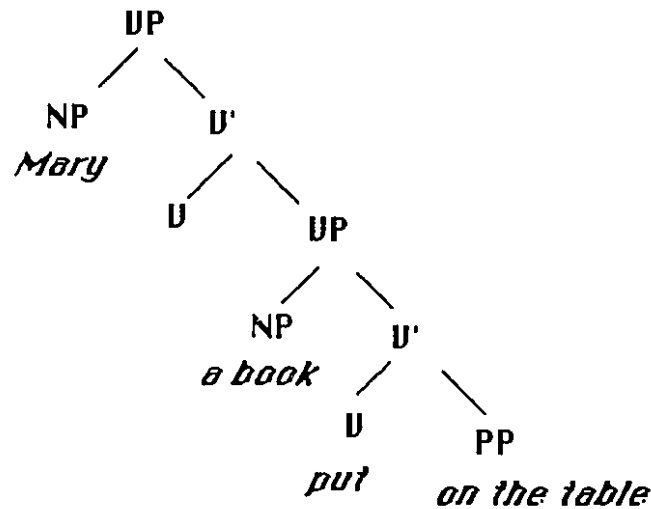
Larsonian phrase structure

In order to derive BG from syntactic geometry, I will make a number of assumptions about the projection of argument structure onto syntactic trees. One of them is that arguments are projected in a "Larsonian" manner,⁹ whereby VPs have considerably different syntactic realisations depending on the number of arguments a verb has. (This follows from the "Single Argument Hypothesis";

⁹ See Larson 1988. Although we will adopt his basic approach to projection, the details will be adapted to our purposes more along the lines of Sportiche (1990). (See chapter 5.)

see Larson 1988: 380ff.) According to this assumption, the verb *put*, for example, is projected in the following manner:

(19)



In this thesis, I will adopt a somewhat stronger version of the Single Argument Hypothesis, as given in (20).

(20) CONDITION ON ARGUMENT PROJECTION (CAP)

NPs are always projected into a specifier position of the verb by which they are selected.

BG will be shown to be derivable from the CAP.

UTAH

I will assume that syntactic mapping of arguments proceeds in an absolute rather than hierarchical fashion (cf. Grimshaw 1990 among others). Syntactic structure is understood to represent argument/event semantic structure

unambiguously, consistent with a very restricted version of the Uniformity of Theta Assignment Hypothesis (henceforth UTAH) (Baker 1988a). This plays an important role in the discussion of stative experiencer predicates, where I will argue against the view that experiencers are mapped hierarchically onto the position of external arguments. This will be motivated in part by the notion of unambiguous projection (see Hale & Keyser 1990).

1.3. Case-checking and Case Determination. Finally, what emerges from chapter 5 in conjunction with the conclusions of previous chapters is that the site of Case-checking for subjects and objects varies depending on (i) S-structure positions of Case-licensing heads and Case-licensees, and (ii) language-particular properties (that is, it is subject to parametric variation). However, it is independent of the conditions that make structural Case available. These are assumed to be invariable — if not across languages, at least within one language. I will therefore distinguish between CASE-DETERMINING projections and CASE-CHECKING projections, where the former may, but do not necessarily, coincide with the latter. Case-determining projections determine which Cases are available; so that, for example, TP determines whether or not nominative is available. But the NP checked by nominative Case need not be checked under Spec/TP, but may instead be checked under a projection into which T has incorporated. This distinction, though it may seem trivial here, has important consequences for the types of agreement that we find in the languages under scrutiny — as will become clear in the following chapters.

Chapter 2

Operators and Case

2. Introduction. This chapter will be concerned with the matrix/embedded asymmetry associated with subject auxiliary inversion (henceforth SAI) in interrogatives, particularly those in French; and will develop a theory of specifier licensing according to which operators in specifiers need to be licensed similarly, as NPs are subject to a Case licensing condition. This licensing mechanism will be compared, and in certain cases identified, with the Case-checking mechanism of NPs. The theory of licensing of operators in specifiers will lead to interesting conclusions regarding the locus of Case licensing for *wh*-moved subject NPs. (These conclusions will be crucial for the following chapters, where I investigate interrogative and relative clause structures in Welsh and Modern Irish.) This chapter will also develop a typology of interrogative structures according to which languages divide into two subsets: those that typically have syntactic *wh*-movement and those that essentially employ *wh*-in situ. Specifically, I will argue that languages can differ as to whether they generate the feature *Wh* under *C* (i.e. under an *A'*-projection — by which I mean a projection that licenses an *A*-specifier), or whether *wh* itself constitutes a projection that is part of the inflectional *A*-system, below *CP*. The second type of languages typically have an overt question morpheme on the tense-verb complex, either restricted to yes/no question (e.g. Quebec French) or present in all questions (e.g. Japanese). However, a crucial property of this morpheme is that it licenses an *A*- as opposed to *A'*-position. Thus, there is no overt operator movement into its Spec-position; and the subject raises to (or through) its specifier.

The idea pursued here has roots in a theory of operator licensing developed in Noonan 1989. Though the present study will depart from that theory in certain respects, I will start the discussion by presenting the assumptions that were formulated in that work.

2.1. A theory of Operator Licensing. According to Chomsky's (1986a) principle of Full Interpretation (FI), every element of some syntactic representation of a sentence must be licensed. Taking FI seriously, we need to provide licensing mechanisms for every structural position occurring in some syntactic representation of a sentence. In particular, I am going to argue here that whenever it occurs, the specifier position of a category must be licensed. A result of this assumption is that if an element moves into Spec/CP, it has to be properly licensed. In Noonan 1989, this condition is formulated as the IOTA FILTER:

(1) IOTA FILTER (Noonan 1989: 315)

An interrogative operator in Spec/CP must be assigned one and only one [IOTA] - feature.

Iota is viewed as an operator licensing feature, which is assigned under the head/specifier relation, where I(NFL) is taken to be the inherent iota assigner (hence the name 'iota'). This proposal is designed to account for the well-known asymmetry noted for SAI: generally languages with overt wh-

movement require SAI in matrix questions, but prohibit it in embedded ones,¹ as illustrated in (2):

- (2) a. What has Bob done?
b. * What Bob has done?
c. I wonder what Bob has done.
d. * I wonder what has Bob done.

Iota-assignment can be achieved in two ways. The first is by movement of I to C and its assignment of iota to the *wh*-phrase in Spec position ("inherent" iota-assignment). This type of iota-assignment is structurally parallel to nominative Case assignment to Spec of IP by I. (In fact, I will argue below that there is an overlap in Iota and nominative Case in that Iota licenses not only operators but also subjects.) The second is by lexical Iota assignment, as performed by certain matrix verbs. I assume that verbs lexically selecting an interrogative complement possess lexical Iota assigning abilities. (Structurally, this type is analogous to exceptional Case marking.) Thus, sentence (2)b is ill-formed because the *wh*-phrase receives no Iota feature; sentence (2)d is ill-formed because the *wh*-phrase receives Iota twice: once from the matrix verb, which is of the kind that assigns Iota, and again as the result of I having moved to C. Ill-formedness here can be seen as the consequence of an Iota conflict, again by analogy to Case theory: just as an NP can receive Case only once, a *wh*-phrase may receive Iota only once.

¹ Spanish and Portuguese, as well as Hiberno English, seem to constitute exceptions to this generalisation (see Torrego 1984; McCloskey to appear); these data will have to be left aside for the moment. The Spanish cases might be analysed as exhibiting *wh*-movement to Spec/IP.

Note that this paradigm seems to be found cross-linguistically. Even in a V2 language like German, where the finite verb moves to C in embedded contexts whenever there is no overt complementizer, we never find verb fronted in embedded [+WH] clauses: these configurations are always ungrammatical, even across dialects:

- (3) a. Fritz sagt, daß Karl alle Gummibärchen aufgegessen **hat**.
 Fritz says that Karl all gummibears eaten-up has
- b. Fritz sagt Karl **hat** alle Gummibärchen aufgegessen.
 Fritz says Karl has all gummibears eaten-up
- (4) a. Fritz fragt sich wer die Gummibärchen aufgegessen **hat**.
 Fritz wonders who the gummibears eaten-up has
- b. * Fritz fragt sich wer **hat** die Gummibärchen aufgegessen.

Here, I will assume essentially the mechanisms of *iota* assignment, but will call the process by the more general term Operator Case Licensing.² This terminology is intended to represent an important analogy — and in certain instances even identification — that will be drawn between Operator Case and the Case-licensing of NPs according to the Case Filter (see chapter 1).

- (5) SPECIFIER LICENSING CONDITION (SLC)
 Specifiers must be licensed by CASE.

² Cf. Fukui & Speas 1986 for a related proposal.

Spec/AgrPs receive Case, which is the licensing feature required by lexical NPs in order to pass the Case Filter (Chomsky 1981). CASE is a licensing feature that occurs under an A'-projection containing an element in its specifier — hence an operator. For ease of exposition, I will frequently refer to operator Case as *iota*.

Here is how operator Case licensing derives SAI patterns in questions: In a matrix context, the head of C is empty and not a proper Spec-licenser. Therefore, the I complex moves to C in order to license the specifier of CP. In an embedded context, the C is lexically selected by a matrix verb. I therefore assume that properties of the matrix verb license the specifier of its complement. This type of operator licensing can be viewed as parallel to the exceptional Case marking of NPs. What goes wrong in example (2)d is that the operator gets Case-licensed twice, resulting in a Case conflict. Again, the analogy is Case conflict with NPs: an NP may receive one and only one structural Case. It should be noted here that a very similar proposal to the one presented here has since been proposed by Rizzi (1991). He equally accounts for SAI in terms of Spec/head agreement. His proposal is stated as *Wh* - Criterion (Rizzi 1990b:2):

(6) *The Wh-Criterion*

- a. A *wh*-operator must be in a spec-head configuration with an $X^0_{[+WH]}$
- b. An $X^0_{[+WH]}$ must be in a spec-head configuration with a *wh*-operator.

He assumes the *wh*-feature to be on Infl in matrix question. In order to be in a spec/head relation with a *wh*-operator, it needs to move to C, since *wh*-movement of a *wh*-operator in English can only proceed to Spec/CP (since

Spec/IP is an A-position). In embedded contexts however, the wh-feature is on C due to lexical selection by the matrix verb, thus Infl does not move to C. The difference to the theory presented here is rather minor: it consists in the fact that I assume the wh-feature to be consistently generated under C in a language like English, whether embedded or matrix question. This is important in order to capture the typological differences in my system (see below). Thus, under the system proposed here, the wh-phrase must move to Spec/CP in order to be in a Spec/head relation with the wh-feature on C,³ which in turn, forces Infl to move to C in order to specifier-license the operator in Spec/CP. I will return to the issue of the wh-criterion below.

2.2. French Interrogatives. I will present two peculiarities of French interrogatives which pose an interesting problem for the assumption of SAI in French, and propose to resolve them by stipulating that there is no I-to-C movement in French tensed questions.

2.2.1. Simple Interrogatives. French exhibits an interesting contrast with respect to SAI depending on whether the subject is a pronominal or a full NP. This contrast is illustrated in (7):

- (7) a. * Est Marie partie?
is Marie left
'Has Mary left?'

³ This idea goes back to C.L. Baker's 1970 proposal of an abstract Q-morpheme under C.

b. Est-elle partie?

is she left

'Has she left?'

(8) a. * Quand est Patrick venu?

when is Patrick come

'When did Patrick come?'

b. Quand est-il venu?

when is-he come

'When did he come?'

The existence of the (b) examples has previously been taken to indicate that French interrogatives exhibit SAI. However, if we assume that SAI occurs in French, then the ill-formedness of the (a) examples comes as a surprise and calls for explanation. In Noonan 1989, this ill-formedness is taken to indicate that SAI in French does not occur in principle. The (b) examples are taken to indicate cliticisation of the pronominal subject to I from its VP-internal base position, rather than I-to-C movement.

2.2.2. Complex Inversion. Another construction that poses certain problems for the assumption that SAI occurs in French interrogatives is that illustrated in (9):

- (9) a. Pourquoi Françoise aime-t-elle les éléphants?
 why Françoise loves-she elephants
 'Why does Françoise love elephants??'
- b. Antoine va-t-il nous rejoindre?
 Antoine will-he us meet
 'Will Antoine meet us?'

Once again, the inverted order of the auxiliary or verb with the subject clitic in these constructions has led to the assumption that *I* has moved to C. However, here again this assumption meets with a problem: if *I* has moved to C, and Spec/CP is the landing site for *wh*-movement, then what is the structural position of the subject (i.e. *Marie* and *Antoine*, respectively)? It seems we need two positions for maximal projections preceding the auxiliary/verb. Below, I present two analyses that have attempted to account for the word order we find in complex inversion.

Kayne's Analysis

Kayne (1984) proposes that cases like (9)a–b result from movement of the subject NP and *I* from S, and their adjunction to S. His proposal incorporates two crucial representational constraints on the pre-S positions, which derive the well-formed order of the three adjoined elements while ruling out the unacceptable orders (e.g. where the subject NP precedes the *wh*-phrase). The specific form of these constraints will not be of concern here (particularly since they need to be revised in the light of the CP/IP hypothesis and structure-preserving movement, given that Kayne's analysis predates the generalisation

of X' structure to S and S').⁴ Instead, our concern will be with two aspects of Kayne's analysis that concern the status of the pronominal subject clitic on INFL. His analysis hinges upon the notion of "complex inversion chains", where the subject NP and the pronominal clitic are coindexed. There are several interacting processes involved in this coindexation, to do with the ECP, for example; these I also will not elaborate on. What is crucial here, however, is the conclusion that the clitic is necessarily non-argumental. Since the NP and the clitic are in a chain, and only one theta role is associated with that chain, only one of these may be an argument, or else the Theta Criterion will be violated. Kayne suggests this as the key to explaining the appearance of complex inversion with third person subject NPs only. The third person subject pronoun is *il*, which is also the expletive pronoun in French. If first and second subject pronouns (*je* and *tu*, and *nous* and *vous*) are necessarily arguments, just like object clitics (*le/la/les/me/te...*), the paradigm in (10) can be explained:

- (10) a. Pourquoi lui seul est-t-il venu ?
 why him alone is-he come
 b. * Pourquoi toi seul es-tu venu ?
 why you alone are-you come

The fact that complex inversion with third person singular female and third person plural NPs with the clitic pronouns *elle/ils/elles* are also well-formed (even though the expletive *il* never appears in these forms) is explained by taking the indexed chain to trigger number/gender agreement — so that

⁴ However, his proposal foreshadows the CP analysis, since a crucial to it is the notion that INFL in pre-S position is another head position distinct from the head of S. In fact, his proposal hinges upon the insight that another headed projection is created outside of S.

whatever number and gender features the third person subject NP carries are passed on to the third person clitic.

Another significant feature of complex inversion structures is their occurrence only with lexical NPs and never with pronominal NPs:

- (23) a. * Quand il va-t-il venir ?
 when he will-he come
 b. * C'est-il faux ?
 it is-it false
 c. Cela est-il faux ?
 that is-it false

Kayne explains this fact in terms of morphologically overt case: in French, only pronouns show Case overtly, while full NPs never bear morphological case. He suggests the following principle:

- (11) Given a chain C with Case K, K can be realized morphologically
 on at most one element of C. (Kayne 1984: 216)

This rules out (23)a–b, as it is a chain associated with one Case realized on more than one element, as the subject NP is a clitic pronoun as well.⁵

This type of analysis is not compatible with structure-preserving movement and the CP/IP hypothesis, since these give us two landing sites for movement under CP: one, C, for head movement, and the other, Spec/CP, for movement of an XP. In order to derive complex inversion as analysed by Kayne,

⁵ In this way, Kayne also explains why in languages like German, where lexical NPs as well as pronouns must bear morphological case, complex inversion chains do not exist.

we would need another position, since he assumes that three elements move out of IP.

Rizzi and Robert's Analysis.

Rizzi and Roberts (1988) (henceforth R&R) also assume that I moves out of IP in complex inversion structures such as (9)a–b, which they take as an instance of head movement to C. One of the goals of R&R's analysis is to account for the fact that complex inversion is restricted to root contexts. To this end, they incorporate into their analysis certain technical assumptions about head movement as either a substitution rule or an adjunction rule. The gist of their argument is that if a head morphologically subcategorizes for a morpheme/head, then incorporation is a substitution-type movement, leaving the category of the target head unchanged. If, on the other hand, a head does not morphologically subcategorize for an incorporating X^0 category, then a dual head is created. C does not subcategorize for I morphologically. Thus, if I adjoins to C, the head of CP is no longer unambiguously a C. If this takes place in the context of a selected CP, i.e. in an embedded context, it leads to a violation of the Projection Principle (Chomsky 1982), since the complement of the matrix verb is no longer a CP at all levels of the grammar. Regarding the problem of the landing site of the subject NP, which I pointed out in the preceding sections, they offer two possible solutions. One is that the NP adjoins to C' (thus the restriction that $X^{\max}$ categories adjoin only to $X^{\max}$ (see Chomsky 1986) is altered into a restriction of the adjunction of XPs to "non-heads"). Their alternative is that (because of the dual head C-I) two specifier positions are licensed: one an A'-position and the other an A-position. The clitic pronoun on I is licensed, since it receives Case by incorporation (cf. Baker 1988). A biuniqueness condition on the mode of Case assignment (once by

head/specifier agreement and once by incorporating into the Case assigner itself) is thus assumed to hold, rather than a biuniqueness condition on Case itself (which would entail that only one element may receive nominative Case).

This analysis faces the following problems. First, notice that most V2 languages allow inversion to take place in embedded declarative CPs (see (3)b). R&R's response to this is to observe that in V2 languages, unlike in non-V2 languages, C morphologically subcategorizes for I. Recall, however, that V2 languages, even though allowing for V2 in embedded declaratives, never allow for inversion in embedded questions (see (3)b versus (4)b). Therefore, an explanation in terms of dual heads and the Projection Principle requires, in addition, the drawing of a distinction between [+ WH]-complements and [- WH]-complements.

Even if their analysis is able to explain the impossibility of inversion in embedded contexts, they do not offer an explanation for the obligatoriness of inversion in matrix contexts. Furthermore, they have suggested why the clitic in complex inversion does not lead to ill-formedness, but not why it is there in the first place — whether it has a function, and if so, what this function might be.

Again, the assumption that I in French does not raise to C avoids this problem: the *wh*-phrase is in Spec/CP, the subject NP is in Spec/IP and the subject clitic is cliticised onto I.

Problems

While it explains the idiosyncrasies of French interrogatives, the assumption that SAI does not occur in French matrix questions is in conflict with the theory of operator, and more generally, specifier licensing as presented in section 2.1. If we take the specifier licensing condition to hold universally, then we must discover some other licensing mechanism in French. Otherwise, the theory has

to be abandoned as a universal, and must be made particular to languages such as English and German. I will, however, reject this solution and take the null hypothesis to be that (5) holds universally. We must thus assume that French avails itself of other mechanisms to satisfy the Specifier Licensing Condition. In fact, a closer examination of certain properties of French interrogatives will reveal a solution to this problem.

In what follows, I will first present an analysis of chain formation between I and C as developed in Noonan 1989. This mechanism will then be shown to pave the way to reanalysis in Quebec French.

2.2.3. Long Distance Spec-licensing. Let us assume that there is an alternative way to assign *iota* to the *wh*-phrase in Spec/CP. This is under what is called "iota transparency" in Noonan 1989, which allows I to *iota* -mark the *wh*-phrase from its base position, i.e. without having to move to C. Clearly, this process has to be severely restricted, or the cross-linguistic generalization of SAI co-occurring with overt *wh*-movement, which was intended to be captured by the *iota* Filter, would be lost. We can restrict *iota* transparency by assuming that it is dependent on the process of feature transmission, or feature sharing between I and C — more specifically, that in SF the feature [+ WH] descends from C to I. This feature percolation establishes a chain relation between I and C, which results in a configuration of *iota* transparency. This process is developed from the notion of 'government transparency', as proposed in Baker 1988: 64.

(12) GOVERNMENT TRANSPARENCY COROLLARY (GTC)

A lexical category which has an item incorporated into it governs everything which the incorporated item governed in its original position.

The idea of the GTC that if two heads become non-distinct through incorporation, the minimality condition does not apply. The GTC might be viewed as the more general statement that chains govern as units.⁶ Furthermore, as we are not dealing with a government relation here, but with a specifier/head relation, Baker's notion of the GTC is extended to apply also to specifier/head agreement. This is formulated as the Chain Corollary (CC):

(13) CHAIN COROLLARY

Chains govern and agree as units.

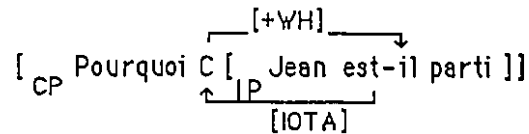
Returning to iota assignment, if I and C have entered a chain relation (through feature transmission), then they agree as a unit with the specifier of CP. The CC, as it pertains to I and C, might be taken to state that C provides the necessary structural position and I the necessary contents for iota assignment.⁷ One might conceive of iota assignment in terms of features "travelling" from one link in the chain to the next; in other words, of the feature [+ WH] descending to I and turning it into a [+ WH]-I, and of iota "climbing" to C.⁸ (14) illustrates the process:

⁶ Baker (1988: 450, n.17) mentions this possibility himself.

⁷ Note that if Chomsky (1988) is right in assuming the lowering of Tns (i.e. [+ F]) and Agr affixes (which are both taken to constitute a projecting head on their own; see Chomsky 1988 and Pollock 1987) to the verb in English, as opposed to the verb raising to those categories at S-structure as in French, then some mechanism like the CC has to be assumed in order for the subject to receive nominative Case from either one of these elements at S-structure.

⁸ Given its more intuitive nature, I will henceforth refer to this process as "IOTA CLIMBING", on the underlying assumption that everything that follows from Iota climbing actually follows from the fact that I and C are in a chain, i.e. without necessarily having to assume actual "feature

(14)



To recapitulate, it has been established that *wh*-phrases in Spec/CP have to be assigned iota in order to pass the Iota Filter. This is accomplished by lexical iota assignment in the case of embedded questions, or, in the case of matrix questions, by I-to-C movement (i.e. English) or C-I chain formation (in SF).

Note, incidentally, that we may account for (15) in the same way that we accounted for (3)b:

(15) * Je me demande où Marie a-t-elle rencontré ce gars.

I wonder where Marie has-she met this guy

(3)b (i.e. SAI in an embedded context) was ill-formed due to an iota conflict, (15) is out for the same reason. The clitic on I singles this construction out as one of iota transparency, so that the *wh*-phrase is assigned iota by the embedded I as well as by the matrix verb.

2.2.4. Implications of Iota Climbing.

2.2.4.1. Pronoun Inversion. Consider sentences like (1)b and (8)b. If I does not raise to C, as argued here, and the subject pronoun cliticises onto I

travelling". Thus, "IOTA climbing" can each time be replaced by "C is in a chain with an Iota bearing element".

-



direction in a head-initial language) by the verb in COMP, it can drop and be pro. She maintains that whether a language is pro-drop or not is not an arbitrary independent parameter; any language will allow a pro if the conditions on it are met, which are that it be head-governed and identified. She shows that the loss of pro drop in OF can thus be correlated with the loss of V2.

Let us take up the gist of her analysis in terms of canonical government and state that SF allows the subject to drop if (i) it is governed from the left by inflection, and (ii) its features are identified.

- (17) pro is licensed if head-governed (in canonical direction) by "INFL" features.¹⁰

Furthermore, let us say that

- (18) If C contains iota it is a sufficient head-governor for pro.

Again, since French is a head-initial language, the direction of head-government is rightward. It follows from the above statements that pro in subject position is licensed by iota, if it has climbed to C iota, and is identified by the pronoun clitic on I. The configuration is illustrated in (19).

- (19) [_{CP} (wh-phrase) C-(iota) [_{IP} pro_j est-il_j [_{VP} t_j venu]]]

2.2.4.2. Stylistic Inversion. The claim that a C containing iota can license a pro is independently motivated by what is known as "stylistic

¹⁰ One could really say that pro obeys the ECP.

inversion". It has been observed that stylistic inversion of the subject in French is licensed by *wh*-movement (see Kayne & Pollock 1978). Consider the following example:

- (20) À qui a parlé Jacques?
to whom has spoken Jacques

Assuming that stylistic inversion in SF is essentially the same construction as free inversion in Italian (a pro-drop language), we are led to the suggestion that there is a *pro* in Spec/IP. Why should *wh*-movement license a *pro*? This is a surprising fact, since there is no a priori connection between the two phenomena. However, the theory of *iota* assignment and *iota* climbing suggests a theoretical connection: if *wh*-movement in SF implies *iota* climbing, then it also implies the possibility of *pro* in Spec/IP. In this case, the identification requirement on *pro* is satisfied by the co-indexation of *pro* with the c-commanding subject NP (stylistic inversion, I assume, is adjunction of the subject NP to the right of IP).

We also find stylistic inversion in embedded questions:

- (21) Je me demande quand partira Jacques.
I wonder when will-leave Jacques

We saw earlier that neither pronoun inversion nor complex inversion is possible in embedded contexts, because of a resulting *iota* conflict. Note, however, that in embedded questions the *wh*-phrase receives *iota* from the matrix verb. This occurs through the matrix verb's passing an *iota* feature down to the C it selects, which then assigns *iota* to the *wh*-phrase in Spec/CP under the head/specifier

relation.¹¹ Thus, there is an *iota* feature on *C*. Hence, we find licensing of *pro* independently of the *I* of the embedded clause, simply because of lexical *iota* assignment by the matrix verb.

There is another case where stylistic inversion occurs in embedded contexts, namely in subjunctive clauses:

(22) Marie désire que soit heureux l'homme qu'elle aime.

Marie wishes that be happy the man that she love

In subjunctive clauses the tense of the embedded *I* is dependent on the matrix verb. Not wishing to enter into the discussion of the nature of subjunctives, I will suggest simply that the selection of the embedded *I* is accomplished by certain "INFL-features" passed down to the embedded IP by the matrix verb via *C*. If something along these lines took place in subjunctives, then it would be no surprise that subjunctives license stylistic inversion: there are features on *C*, thus *C* acts as a sufficient head governor to license *pro*.¹²

However, subjunctives do not license pronoun inversion. So far we have no way to account for this; it seems that for a subject pronoun clitic to appear on *I*, *I* has to have received [+WH] by percolation, or be in a chain with a [+WH]-*C*. This issue will be addressed in section 3.

Consider the ill-formedness of sentence (23):

¹¹ Incidentally, exceptional Case assignment has been proposed to be accomplished in the same manner.

¹² The general claim here is that *C* acts as a sufficient head governor to license *pro* if it contains features. The fact that stylistic inversion is also triggered in other *wh*-movement constructions, e.g. relative clauses and clefts, follows equally from the fact that operators in these constructions have to be licensed by a licensing feature on *C*.

- (23) * Je me demande si est parti Jacques.
 I wonder if is left Jacques

Here we have a case of an iota-assigning verb, yet stylistic inversion is not licensed. The crucial difference between *si* clauses and embedded clauses with *wh*-movement to Spec/CP is the fact that *si* is in head of CP: since it is in head position itself, it “absorbs” the iota features, passed down to C by the matrix verb. The idea is that an element cannot be both an iota-assigner and an iota-receiver, and that C is only a sufficient head governor to license *pro* if it acts as an iota -assigner.¹³

2.2.5. IOTA, Case, and the clitic

2.2.5.1. The function of the clitic. This section will address the role of the doubled clitic in complex inversion structures, claiming that its function is to license the subject NP. The subject NP has to be licensed in a special way as a result of iota having climbed up to C. Let us assume that iota is the feature that normally Case-licenses the subject NP. If iota is used up by a *wh*-phrase, then the subject must receive Case in a different way. For this matter, we can equate iota with NOM(INATIVE). NOM (alias iota) is a functional feature, assigned strictly under the head/specifier relation. It is not a Case assigned under government. The hypothesis of NOM = iota amounts to saying:

- (24) Subjects pass the Case Filter if they are assigned iota.

¹³ Most speakers do not accept stylistic inversion with *pourquoi* ‘why’ either. Possibly, the same then could be said about *pourquoi*, namely that it is base-generated in C (cf. Rizzi 19__). Note, that *pourquoi in situ* is also not favoured, and most speakers get a contrast with *comment*.

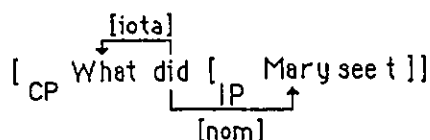
If the subject is not assigned *iota*, it must be assigned *NOM*(inactive). *Nom*, as opposed to *NOM*, can be assigned only through canonical head government by a lexical head. It is a *government Case*, as opposed to an *agreement Case*.¹⁴ Another way of viewing this proposal is that *I* can Spec-license only once. If it must Spec-license an element in Spec/CP, it cannot do so for the subject in Spec/IP. In these cases then, the subject needs to be head-governed by a lexical *I*, in order to be Case-licensed. Exploiting the "split INFL hypothesis", according to which INFL is split up into the functional heads *AgrS* and *Tns* (and *AgrO*) (Chomsky 1988, Pollock 1989), it is proposed in Noonan 1989 that *NOM*, that is the licensing feature assigned under a specifier/head relation, can be associated with the functional head *AgrS*, while *nom* is associated with *Tns*.

Let us take English first, where *I* moves to *C* in matrix questions:

(25) What did Mary see?

I licenses the *wh*-phrase in Spec/CP under a specifier/head configuration. However, the subject can be assigned *nom* by the auxiliary in *C*, which governs the subject canonically.

(26)



¹⁴ The idea of distinguishing Case assignment by a head through agreement or through government is similar to what is developed in Koopman & Sportiche 1988. However, here I assume provisionally that a head can simultaneously assign both kinds of Cases, contrary to what they assume.

Next let us turn to SF. Here, I argued that I does not move to C, but that there is *iota* climbing instead. Again, *iota* is not available for the subject, as it is needed for the *wh*-phrase. Since I has not moved to C, there is no lexical head in C which governs the subject and could assign *nom* to it. For this reason, the subject is left Caseless.¹⁵ Here the grammar of SF provides a repair strategy: insertion of a resumptive clitic in the D-structure position of the subject and its cliticization onto I. Note that the clitic is in the right configuration to receive *nom* — namely, canonically head-governed by it.¹⁶ It is also co-indexed with the subject NP (agreeing in number and gender with it). We may therefore say that the subject NP in complex inversion structures passes the Case Filter by virtue of being in a chain with Case.¹⁷

Next, consider again the case of stylistic inversion. Here, there is no clitic on I. But note that the subject is in a position where it is governed canonically by I, being to its right, and is thus in a position to receive *nom*.¹⁸ This analysis raises the question why we cannot allow the subject NP to remain in Spec/VP in

¹⁵ Note that a C containing *iota* is, however, a sufficient governor to licence *pro*. But since it lacks lexical contents, it cannot assign *nom*-type Case. With this analysis of licensing of *pro*, I depart from Rizzi's (1986) assumption that Case is a necessary condition for *pro*.

¹⁶ There are two possibilities: either the pronoun has received *nom* before it cliticises onto I, or it receives Case by virtue of incorporating into I (see Baker 1988). This is the solution R&R propose for the clitic in complex inversion. Both views are compatible with my analysis.

¹⁷ Of course, this would deny the hypothesis that only the head of an A-chain can be a Case position. On the other hand, if we say that the clitic has Case by virtue of having incorporated, then we cannot speak of an A-chain anyhow. Then the subject NP would receive Case by head/specifier agreement with I, but this time not because I contains something that assigns Case, but because it contains a nominal element that *has* Case.

¹⁸ Note that this hypothesis excludes matrix infinitival *wh*-questions, for the same reason as overt lexical subjects in non-embedded infinitival contexts are excluded, namely because only a tensed I is a Case assigner. Infinitival questions like (i) are rather marginal in English; they are good in French, however:

(i) *? What to do?
(ii) Que faire?

I will maintain that these are not interpreted as real questions, but as exclamations (cf. Travis 1984, which comes to the same conclusion on different, but not unrelated grounds). Exclamations never trigger inversion. An analysis of exclamations would have to involve a determination of the semantics of exclamations. They might be some variant of cleft or relative constructions, in which case operator licensing would be related to the licensing mechanism in relatives and clefts.

1 questions and receive *nom* in that position. This cannot be permitted, since it predicts sentences (1)a–(8)a to be well-formed. We know that *pro* is licensed, and that the subject is in the right place to be assigned *nom*. However, *pro* also has to be identified. This can be accomplished by its coindexation either with a clitic in I, or with a c-commanding NP. Neither of these conditions obtains, since the subject NP in its base position does not c-command Spec/IP. In stylistic inversion, on the other hand, the post-posed NP c-commands Spec/IP.

2.2.5.2. **Ramifications of the IOTA = NOM Hypothesis: A “Least Effort Grammar”.** The phenomena of complex inversion and stylistic inversion cannot co-occur, as indicated by the ill-formedness of (27):

- (27) * À qui a-t-il téléphoné Jean?
to who has-he phoned Jean

2 There are two elements in (27) which receive *nom*: the clitic and the inverted subject NP. This is one *nom* too many. More significantly, however, the doubled clitic in complex inversion might be seen a last resort mechanism to save the subject NP. If the subject NP itself is in the right position to receive Case, then the language-particular rule of *il*-insertion violates the ‘least effort principle’ (Chomsky 1988). In the same spirit we can account for the ill-formedness of (28b):

- (28) a. Qui a gagné?
who has won
b. * Qui a-t-il gagné?
who has-he won

Since this is a case of subject extraction, the element that requires *iota* in order to pass the SLC and the element that requires *NOM* in order to pass the Case Filter are one and the same element. One might therefore expect the *wh*-phrase to inherit *iota* from its variable, which is consistent with common assumptions about Case inheritance from variables. This would explain why (28b) is ill-formed, as well as why there is no *do*-support in subject questions in English.

However, consider a subject extraction in an embedded context:

(29) Je me demande qui_j [_{IP} t_j a gagné]

If we allow the *wh*-phrase to inherit *iota* from its variable, an *iota* conflict arises: the *wh*-phrase receives *iota* twice, once from the matrix verb and once from its base-position.¹⁹ Thus, it seems we have to prevent the *wh*-phrase from inheriting Case from its variable.

Let us assume the following: *wh*-phrases do not inherit Case from their D-structure position. On the other hand, a *wh*-phrase is able to pass Case down to the variable it binds, if the latter needs it. Thus, in (28)a the *wh*-phrase passes *iota* down to its variable, because the latter cannot otherwise receive it (*iota* having climbed to C). If this is an option allowed by UG, it takes precedence over language-particular rules like *if* or *do*-insertion; hence the ill-formedness of (28)b. However, as an optional process, it need not occur, as shown in (29), where the variable receives Case (i.e. *iota*) from I of its own IP. This claim receives independent support from Hungarian and English. Consider the contrast in (30) (first noted by Kayne):

¹⁹ This problem was pointed out to me by Amy Weinberg.

- (30) a. * I think John to be leaving town tomorrow.
 b. ?Who do you think to be leaving town tomorrow?

The subject is not Case-marked in the infinitival lower clause. The sentence improves for most speakers if the subject is *wh*-moved through the embedded CP. Kayne suggests that the intermediate trace is Case-marked by the matrix verb. Under the theory presented here, the matrix verb is not of the *iota*-assigning type; let us thus assume that the *wh*-phrase, which receives *iota* in its S-structure position, passes *iota* down to the variable via the intermediate trace. Possibly, this process of downward Case transmission is restricted to local contexts, such as in (28). This would explain the relative marginality of (30)b.

As for Hungarian, Horváth (1985) reports cases where the *wh*-phrase does not take the nominative Case that is assigned to its base-position, but bears Case assigned to it by the matrix verb. This fact provides further evidence for the claim that *wh*-phrases do not inherit Case from their variable, but can be Case-licensed under CP. Later, in chapter 4, the fact that subjects are Case-licensed under Comp will be arrived at independently, when analysing Irish subject *wh*-movement.

2.2.6. The Clitic: [+ WH]-INFL. As noted above, there are certain constructions in which *pro* is licensed, but for which there is no possibility of pronoun inversion. Among these are subjunctive clauses:

- (31) a. Marie veut que soit heureux l'homme qu'elle aime.
 b. * Marie veut que soit-il heureux.

Other cases are relative clauses (which also license stylistic inversion) and embedded [- WH]-clauses from which long movement has taken place. We might describe these cases in terms of the generalisation that a clitic on I is strictly limited to Is that have received the feature [+ WH] (or are in a chain with a [+ WH]-C). This generalisation can be expressed as follows:²⁰

(32) [... INFL-clitic...] only if INFL is [+ WH]

Let us say that the clitic acts like a diacritic signalling that I is [+ WH].

Consider now the contrast in (33):

- (33) a. * pro est parti Jacques?
 is left J.
 b. pro est-il parti?
 is-he left

From (33)b we can conclude that pro is licensed in yes/no questions. Why then is (33)a ill-formed? It seems that whenever we encounter a yes/no question, there must be a clitic on I. Therefore, the generalisation under (32) cannot be the whole story, since it seems to hold both ways: the clitic on I *must* be there in order to make the *wh*-feature visible in yes/no questions. We can make the following suggestion: in *wh*-questions, the [+ WH] status of the clause is overt, because of the presence of an *wh*-phrase. In yes/no questions, the element that

²⁰ This is not quite accurate, since we also find clitic in complex inversion configurations with certain fronted adverbial phrases:

(i) Peut-être Marie a-t-elle déjà vu ce film.
 (ii) Jamais Pierre est-il arrive si tôt que ça.

I shall put these cases aside.

is questioned can be assumed to be I itself (or Tns); in other words, I is the “*wh*-element”. In English, I moves to C, so it is in under an A'- projection, and the sentence is recognized as a yes/no question. In Standard French (henceforth SF), however, I cannot move to C (i.e. to an A'-position), so some device is required to make overt the fact that I is a *wh*-I. This is accomplished by the clitic, which is either argumental as in (33)b, or expletive (doubled) as in (34):

- (34) Jacques a-t-il déjà mangé?
 Jacques has-he eaten yet
 'Has Jacques eaten yet?'

In a sense, then, the clitic can be thought of as the overt manifestation of the status of I as a *wh*-I.

As we shall see in the following section on Quebec French, this clitic-element, which has pronominal properties in that it agrees for number and person, has been reanalysed as an invariable interrogative particle in that dialect. But before turning to QF, let us once again consider simple inversion structures.

2.3. Québec French. In Québec French (henceforth QF) we find no occurrences of *pro* and no stylistic inversion:

- (35) a. @ *pro* es-tu venu?
 are you come
 b. @ Quand vas-tu venir?
 when will-you come

- c. @ À qui pro a parlé Jacques?
to who has spoken Jacques²¹

These constructions are translated into the corresponding sentences under (36)-(37):

- (36) a. Tu es-tu venu?
you are-*tu* come
b. Marie a-tu vu ce film-là?
Marie has-*tu* seen this film
c. On travaille-tu ici?
one works-*tu* here
- (37) a. Pourquoi (que) tu es venu?
why (that) you are come
b. À qui (que) Jean a parlé?
to who (that) Jean has spoken

The sentences in (36) are somewhat reminiscent of complex inversion in SF. However, there are important differences: the clitic-like element *tu* on I is (i) invariable (i.e. it does not agree with the subject in number and gender); (ii) co-occurs with the subject when the latter is a pronoun; and (iii) is restricted to yes/no questions, as shown in (38):

²¹ I have used "@" instead of "*", meaning that the grammar of QF does not produce these constructions. Of course, they are acceptable sentences for speakers of QF, because of their knowledge of SF.

(38) * Pourquoi Marie veut-tu partir?

why Marie wants-*tu* leave

I will show that these facts follow from the loss of *iota* transparency in QF. The claim that there is neither I-to-C movement nor *iota* transparency predicts: (i) no complex inversion, (ii) no licensing of *pro* and (iii) no *wh*-movement to Spec/CP in matrix questions, as there is no way to assign *iota* to them.

2.3.1. Reanalysis of the Clitic. The phenomenon of *iota* transparency in SF results from the fact that the *wh*-feature under C permits the V-I complex to license Spec/CP without moving to C (which it may not, as already noted, since C constitutes an A'-type head). I wish to suggest that this kind of chain formation does not take place in QF, because the grammar of this language has reanalysed the clitic as a head of a functional projection distinct from CP, thus losing [WH] as a feature under C. How does this reanalysis take place? In section 2.2.6 we observed that in all instances of yes/no questions there has to be a clitic on I in order to single it out as a questioned element. Furthermore, in complex inversion cases the clitic is always non-argumental, and its only function is to licence the subject NP. In fact, we can observe that in all *wh*-questions, unless they involve stylistic inversion, there is a clitic on I, and I is always in a chain with a [+WH]-C. By the Transparency Principle (Lightfoot 1979), this type of situation is unstable, since a D-structure configuration almost always turns into a different S-structure configuration: whenever there is a matrix question, a [+WH]-C there is always a clitic on I. Moreover, the [+WH]-feature on I most often shows up as a clitic on I, often as an expletive one. This is the state of affairs where a derivation becomes opaque for speakers and is

thus likely to be reanalysed as a new D-structure. I propose that in the QF grammar, the clitic on I has been reanalysed as a *wh*-feature, a question marker base-generated under I. The question marker *tu*, though historically derived from a pronominal clitic, has been reanalysed as a *wh*-morpheme, namely the question marker *tu*, which heads the functional projection Int(errogative) Phrase. We thus expect that it does not agree with the subject (because it is no longer a nominal element), also that it is not Case marked (since it is a head).²² It licenses an A-position as its specifier, into which the subject raises, and it is restricted to yes/no questions.²³ We now have a language belonging to a different type with respect to interrogatives, in which the [WH]-feature is no longer an operator feature associated with an A'-projection, but has become a feature analogous to tense, aspect, mood, and the like, with its own functional projection — one which is part of the inflectional A-system of the language, and which provides an A-position for the subject. I will refer to this type of language as IntP-type language, and to the former (i.e. SF and English) as a [+WH]-C language, since the feature [WH] is generated under C.

2.3.2. Consequences of Reanalysis. The reanalysis of QF as an IntP- language has significant consequences regarding *wh*-movement, namely, it eliminates *wh*-movement to Spec/CP (in matrix contexts only, for QF; see below). We said above that *wh*-movement proceeds to Spec/CP in order to establish a Spec/head relationship with the *wh*-feature, to satisfy the Wh-

²² This also explains why it may co-occur with a pronoun in subject position (see section 2.2.2)

²³ Cf. Huang 1988, who assumes *wh* movement of Infl at LF in certain Chinese A-not-A questions. His fact might be analysed in the same way.

Criterion (or — in more traditional terms — to absorb the Q-feature; see Baker 1970).

However, while Rizzi assumes that in matrix questions the [WH] feature is in I, and raises to C in order to establish a specifier/head relationship with a *wh*-operator, I assume that in [+WH]-C languages like English, the feature [+WH] is (generally) base-generated under C. On the other hand, in languages that project an IntP that licenses an A-specifier, *wh*-movement is not triggered; here there is no operator feature under an A'-projection, but an inflectional head. Let us thus assume that the *Wh*-criterion does not hold here. We thus typically find *wh in situ*. Although *wh*-movement in these languages has been argued to take place at LF (see, e.g., Huang 1982), my theory implies that such movement is independent of feature absorption, and thus occurs merely for reasons of operator scope determination. In these languages, *wh*-phrases are comparable to quantifier expressions, which undergo movement at LF to determine their scope.²⁴ This is not *wh*-movement to a specifier, but QR (adjunction to IP, or IntP, respectively). This proposal is supported by evidence from Korean and Japanese presented by Kim (1989). He shows that *wh*-elements display behaviour typical of QPs, i.e. they adjoin to IP at LF rather than move to Spec/CP.

I suggest that in QF, IntP is projected only in yes/no questions. In languages where we find an overt question morpheme in constituent questions also, an IntP is also projected in these structures.²⁵

²⁴ However, another possibility is that, even in these languages, the *Wh*-Criterion holds at LF, so that the head of Int needs to be in a head/specifier relation with the *wh*-phrase. We might then assume that Int moves to C at LF and *wh*-movement proceeds to Spec/CP also at LF.

I do not discuss here other proposals that relate the presence of a Q-marker in languages with *wh in situ*. See Cheng 1991 and Aoun & Li (to appear).

²⁵ This is optionally the case in Japanese matrix questions (see Rizzi 1990:14, citing Lasnik & Saito). Interestingly, in embedded question it is obligatory. This would be expected if matrix verbs

To recapitulate, an IntP-language does not require *wh*-movement at S-structure, since there is no [WH] feature in C that has to be absorbed by movement to CP — nor may it have *wh*-movement, since there is no way to Spec-license the *wh*-phrase in that position.

Crucially, this applies to *wh*-movement in matrix interrogatives only. In relatives, cleft sentences, etc., there is *wh*-movement, but the licensing mechanism of the operator is not determined by I. Similarly for embedded questions in QF, in which, I assume, *wh*-movement proceeds in the same fashion as in a [+WH]-C language. The reason for this is that the [WH] feature is assigned to the embedded CP as a consequence of lexical selection properties of the matrix verb. Thus, the matrix verb assigns [+WH] to the lower C, along with *iota*-assigning properties. I thus wish to maintain that there are no inherent [+WH]-Cs in QF, but only lexically selected ones. This claim does not generalise to all IntP-type languages; in other languages, where *wh* also remains *in situ* in embedded questions, IntP is selected by matrix verbs that require embedded interrogatives. The fact that QF differs in matrix and selected contexts is no doubt a reflection of the recent reanalysis of SF (see section 2.4.2). In fact, we can say that QF is a [+WH]-C type language in selected environments, and an IntP type language in matrix contexts.

2.3.3. Clefts. Having established that there is no syntactic *wh*-movement in QF matrix questions, I will demonstrate here that instances of

lexically select an IntP (or as Rizzi points out, a [+wh]-feature on C) . In matrix contexts we might say that IntP projects optionally.

apparent *wh*-movement in this language can be analysed as instances of “hidden” clefts — i.e. clefts in which the copula is dropped.^{26, 27}

In fact, clefting, like *wh in situ* questions, is a very popular device in QF; and questions frequently take the form of (39)a (their underlying structure that of (39)b):

- (39) a. C'est où que t'as mis les oranges?
 It's where that you've put the oranges
- b. $[_{IP} \text{ C'est où } [_{CP} \text{ } wh_k \text{ que } [_{IP} \text{ tu as mis les oranges } t_k]]]$

However, often we find variations of (39) like the following:

- (40) a. Où que t'as mis les oranges?
 b. Où t'as mis les oranges?

I will analyse examples like (40)a as instances of hidden clefts.²⁸ ((40)b will be treated in the next section.) Consider again the incompatibility of the *tu*-construction with *wh*-movement:

- (41) *Où que Marie a-tu mis les oranges?
 where that Marie has-*tu* put the oranges

²⁶ This proposal is reminiscent of Lefebvre's (1982) treatment of QF questions.

²⁷ Crucially, in cleft sentences the *wh*-element is *in situ* at S-structure. Of course, clefting involves *wh*-movement (see Chomsky 1977 for an analysis of cleft structures). But the interrogative word itself is *in situ*.

²⁸ Empty copulas are not uncommon in e.g. modern Irish or various Bantu languages.

In general, *tu*-type questions and *wh*-questions are in complementary distribution, since whenever we are dealing with an apparent *wh*-question it is really a hidden cleft, and the complement of a cleft must be [- WH]. *Tu*, on the other hand, always signals an IntP, since it is an overt [WH]-feature, or question marker.

2.3.4. Adjunction to IP. To return to (40)b: examples like this one are considerably harder to analyse as hidden clefts, since complementizer deletion is generally impossible in all dialects of French, QF being no exception.²⁹ A more solid piece of evidence against a cleft analysis of them comes from the distribution of the synonymous *quoi* and *que* 'what'. *Quoi* is restricted to A-positions and *que* to A'-positions. This is illustrated in the following paradigm:

- (42) a. Marie a acheté quoi?
b. * Marie a acheté que?
'Marie has bought what?'

- (43) a. * Quoi est-ce qu'elle a acheté?
b. Qu'est-ce qu'elle a acheté?

Using this contrast as a diagnostic, and comparing (44) and (45), we can establish that the *wh*-phrase in examples like (40)b is, in fact, in an A'-position:

²⁹ In fact, one of my informants (José Bonneau) informed me that many speakers (himself among them) tend to dislike these kinds of questions, where the complementizer is absent.

(44) a. C'est quoi que tu veux?

'It is what that you want?'

b. ? Quoi que tu veux?

c. * Quoi tu veux?³⁰

(45) qu'sek c'est-ça?

'What's that there?'

I assume (45) to be the phonetic form of (46):

(46) Que c'est que c'est-ça?

what it-is that it-is-that there

We can conclude that the *wh*-phrase must be in an A'-position. However, I have argued that movement to Spec/CP is impossible, since the *wh*-phrase cannot be licensed in that position. I will therefore analyse questions like (40)b and (45) as instances of adjunction of the *wh*-phrase to IntP. In fact, I wish to maintain that all *wh*-movement in a IntP-type language, be it at S-structure or LF, is adjunction to IntP.³¹ In other words, if there is syntactic *wh*-movement in QF, it is very different from *wh*-movement in a [+WH]-CP language, since it neither takes place in order to absorb the feature [+WH], nor is an instance of substitution-movement.

³⁰ Although the judgements of (44) are not very clearcut, this pattern seems nevertheless to represent the general tendency. Many of my informants did not like (44)b) that much, but usually they got a contrast to (44)c). In the body of data collected in Lefebvre 1982, however, I found cases like (44)b).

³¹ This proposal is supported by evidence from Korean and Japanese presented by Kim (1989). He shows that *wh*-elements display behaviour typical of QPs, i.e. they adjoin to IP at LF rather than move to Spec/CP.

2.4. Summary and Conclusions. In this chapter, I have presented a theory of operator licensing which pertains to interrogative operators, in order to explain the obligatoriness of matrix SAI in languages that employ syntactic *wh*-movement for question formation. In order to accommodate facts from SF, I established two different strategies of iota assignment in matrix questions: (i) I-to-C movement and (ii) iota transparency. The notion of iota transparency relies on chain formation of I and C and the chain corollary. I also proposed that QF has reanalysed the feature [+WH] as an inflectional head. As a consequence of this reanalysis, QF employs mostly *wh in situ*, cleft constructions, and the more marked option of *wh*-adjunction to IP as means of question formation.

2.4.1. A Typology of Interrogatives. What emerges from this analysis is a typology of interrogative structures. Languages are divided into the following two types:

A. Languages in which an inflectional IntP is projected:

- (i) *wh in situ* at S-structure or adjunction to IP/IntP (marked);
- (ii) adjunction to IP/IntP at LF.

B. Languages in which [+WH] is in C:

- (i) *wh*-movement to Spec/CP at S-structure;
- (ii) I to C movement or iota transparency in matrix questions.

2.4.2. Languages in Flux. A key observation about SF — which I have suppressed until now for the sake of simplifying the discussion — is

that SF also allows *wh in situ* at S-structure, as shown in (47)a. Moreover, speakers of SF usually find sentences like (47)b perfectly acceptable:

- (47)a. Jacques a vu qui?
Jacques has seen who
- b. Quand Jacques est arrivé?
when Jacques is arrived
'When has Jacques arrived?'

Under the assumptions outlined in this chapter, sentences like (47)b, as I argued for QF, must be instances of adjunction. Given the typology established in the preceding section, this implies that there is no [WH] feature under C. I suspect that speakers of SF, in fact, possess two co-existing grammars: (i) a more formal register (that is, of type B); and (ii) an informal one (i.e. colloquial French), in which there is no [WH] feature under C. This is a surprising state of affairs, since normally this type of variation would involve more peripheral phenomena, and one would not expect two different speech registers to differ on such an abstract level. However, my guess is that it reflects a process of structural change which SF is now undergoing. A clue to this change is the "funny" fact of [WH] feature transmission from C to I, with the resulting phenomenon of *iota transparency*.³² As discussed in section 2.5, this represents a rather unstable state in a grammar, and one which has led to reanalysis in QF. But while SF is "hovering" between two parameter settings, QF has already switched to the "A" setting of this parameter, as just noted. On the other hand,

³² IOTA TRANSPARENCY is probably a very marked phenomenon. It also exists in Trentino. See Roberge 1986 for the relevant data.

the fact that QF possesses the marked option of IP adjunction might reflect its having once been a language of type B, with *wh*-movement to Spec/CP.

This guess is supported by properties of child language and creoles. The unmarked value of the parameter — i.e. the first guess of the language learner — must be value A.³³ Learners of English, however, receive consistent evidence of fronting of the *wh*-phrase in the input data, which leads them to analyse these data in terms of the marked option (i.e. IP-adjunction) of the A setting of the parameter (Guilfoyle & Noonan 1992).

³³ See Guilfoyle & Noonan 1988; see also Riemsdijk 1978: ch. 7, where a similar conclusion is reached from the PRINCIPLE FOR THE EVALUATION OF PHRASE STRUCTURE.

Chapter 3

Case, Functional Heads and A'-Chains in Welsh

3.0. Introduction. The preceding chapter leaves us with two conclusions concerning Case-licensing mechanisms. The first is that an NP may be Case-checked under an A'-projection, if this is the highest position in which the Case assigner and Case assignee are in a specifier/head relationship. The second is that a functional projection such as IntP may provide an A-specifier in which the subject NP can be licensed in order to pass the Case Filter. This chapter and the next one will arrive at essentially the same conceptual outcome, despite the great difference both in the paradigms under scrutiny — agreement patterns, verbal particles and relativisation strategies — and the surface properties of the languages in which they appear — Welsh in this chapter, and Irish in the next. This reaching of similar conclusions independently of considerations established in the preceding chapter is, of course, desirable, since it gives these conclusions a broader and thus more solid basis.¹

3.0.1. Case, Word Order and Subject Agreement. As surface VSO languages, Welsh and Irish have previously been treated as having underlying SVO word order, with surface word order derived by head movement of the verb to C in all tensed clauses (see, e.g., Harlow 1981, Sproat 1983, Sadler 1988).² Movement of the tensed verb has been motivated by

¹ The bulk of this chapter is derived from a paper written in collaboration with Leslie de Freitas, and presented at the Parasession on Negation at the CLS 1991. I am thus especially grateful to Leslie de Freitas for her contributions to this chapter.

² This is supported by SVO order exhibited in tenseless embeddings, etc.

directionality of Case assignment: in Welsh, rightward assignment of nominative Case by I forces the tensed verb to move to a position to the left of the subject NP. The VP Internal Subject Hypothesis (VPISH) (see, e.g., Kitagawa 1986, Kuroda 1987, Koopman & Sportiche 1988/90) has subsequently presented another possibility for deriving VSO order. This is that the verb raises to I in tensed clauses, while the subject remains in its VP-internal base position.³ Such an approach has been applied to Irish by, for example, Guilfoyle (1990), who also appeals to directionality of Case assignment to account for the failure of the subject NP to raise to Spec/IP: since I assigns Case rightward, the subject remains in its base position in order to receive nominative Case and thus to pass the Case Filter. Another property of VSO languages such as Welsh and Irish — namely, the absence of subject agreement⁴ — can now be made to follow from the assumption that subject agreement is established by specifier/head agreement (Chomsky 1986): since the subject does not raise to Spec/ IP, it is not in an agreement configuration with the tensed verb. Instead of explaining the raising or non-raising of the subject to Spec/IP in terms of a parameterisation of the directionality of Case assignment, and viewing the presence or absence of subject agreement as a side effect of this parameter, we might associate agreement itself with the mode of Case assignment; accordingly, I would assign nominative Case under agreement (as in e.g. English) or government (as in e.g. Irish). This is essentially the analysis of Koopman & Sportiche 1988/90.

Yet another possibility in accounting for language variation is to assume that I assigns nominative Case under a specifier/head configuration in all

³ In fact, word order in VSO languages has been one of the empirical motivations for establishing the VPISH in Koopman & Sportiche 1988.

⁴ More accurately, the verb carries a default 3rd person singular agreement.

languages, but that languages differ as regards the level at which this configuration is established. Morphological agreement can then be seen as an S-structure phenomenon feeding into PF, so that if a specifier/head configuration is established at LF only, there is no overt morphological reflex on the head. This hypothesis treats the Case Filter as a checking device at LF, and not as an assignment operation taking place at S-structure. Under this approach English would be a language in which the Case configuration is established at S-structure, and Welsh one in which it is typically established at LF. With respect to the theory of Case, this third possibility — essentially the analysis proposed by Sportiche (1990) and Chomsky (1990 class lectures) — can be viewed as the null hypothesis, since it takes nominative Case checking to function more or less identically in all languages, and reduces language variation in this domain to the level of representation at which the procedure takes place. It thus makes variation in the position of the subject with respect to the finite verb directly analogous to the variation associated with *wh*-movement, whereby languages with syntactic *wh*-movement establish the *wh*-configuration at S-structure, while others establish it at LF only (see Huang 1988, Rizzi 1991, and chap. 2 above).

3.0.2. A Generalised Theory of Structural Case. Recent treatments of accusative Case (Chomsky 1990, Mahajan 1990, Johnson 1990, Sportiche 1990, Travis 1991 and others) have assimilated the mechanism of accusative Case assignment/ checking to that of nominative Case, such that both are seen to take place under a specifier/head configuration. The motivation for these treatments is conceptual as well as empirical in nature.⁵ The

⁵ There are a wide range of evidence that objects actually raise to their Case position, which comes from particle constructions and double object constructions (Johnson 1990),

conceptual gain is the subsuming of all structural Case operations under a single checking operation that takes place under a specifier/head configuration, whereby the appearance of nominative or accusative Case depends on the properties of the functional head.⁶ Given this universal mechanism of structural Case checking, Case differences between languages are a matter only of the level of representation at which the specifier/head configuration is established — namely, at S-structure or at LF.⁷ I will adopt this basic proposal for the unification of structural Case licensing mechanisms, and thus the two premises (1) and (2):

(1) STRUCTURAL CASE CHECKING HYPOTHESIS (SCCH)

Structural Case is always checked under a specifier/head configuration
(see Chomsky 1990, Mahajan 1990, Sportiche 1990).

(2) AGREEMENT HYPOTHESIS

Agreement equals a configuration of structural Case at S-structure (cf.
Sportiche 1990)⁸

participle object agreement in French (Sportiche 1990), binding facts (Chomsky 1990, Sportiche 1990), agreement and the A/A' distinction of positions in languages like Hindi and German (Mahajan 1990), and verbal morphology in Austronesian languages (Travis 1991).

⁶ For instance, Chomsky (1990) suggests that an Agr-phrase dominating [+ Tns] determines nominative Case while an Agr-phrase dominating a Case assigning verb is the position where accusative Case is checked.

⁷ In principle, the setting of this parameter can differ with respect to accusative or nominative Case within the same language. So for instance Sportiche (1990) shows that while in French subjects need to be in their Case configuration at S-structures, objects do not raise until LF.

⁸ This statement is directly adapted from the *Strong Correlation Hypothesis* (SCH) of Sportiche 1990:ex. (124):

SCH: Structural Case is identical to Agreement Case
Inherent Case is identical to Governed Case.

Welsh and Irish thus bear on these issues of Case in the following way: as VSO languages that generally do not mark subject agreement on the verb, they are among those in which the relevant Case configuration is established at LF only (with respect to nominative Case at least). This chapter and the following one aim to show that even in these languages a Case configuration is in certain instances actually established at S-structure, as reflected in specific agreement patterns, verbal particles and word orders. In this way, data from Welsh and Irish will be shown to support the specifier hypothesis for both nominative and accusative Case, and to suggest the conditions under which a Case configuration is established at S-structure; and the identity of the functional categories involved in Case licensing, and their position in the syntactic tree.

3.0.3. The Welsh Data. The aim of this chapter with respect to linguistic data is to provide an analysis of interesting paradigms involving agreement and negation in Welsh relative clauses. Welsh is traditionally described as having two distinct relativisation strategies (Awberry 1977, Harlow 1981, Sadler 1988, Rouveret 1990). The first or "direct" strategy is required when the relativised argument is a subject, or is the direct object of a verb inflected for tense. The complementizer is *a*, and agreement with the relativised argument is obligatorily absent. This strategy is illustrated in (3).

- (3) a. y dynion a ddarllenodd ___ y llyfr
 the men comp read-3s⁹ the book
 'the men who read the book'
- b. * y dynion a ddarllenasant y llyfr
 the men comp read-3pl the book
 'the men who read the book'

The indirect strategy is required when the relativised argument is the object of an untensed verb, a preposition, or a noun. Here the complementizer is *y*, and agreement is obligatory with the relativised argument. This strategy is illustrated in (4).

- (4) a. y llong y gwnaeth Sion ei gwerthu
 the boat comp did-3s John 3s sell
 'the boat that John sold'
- b. * y llong y gwnaeth Sion gwerthu
 the boat comp did-3s Sion sell
 'the boat that John sold'

An interesting effect is induced by negating a relative clause. In cases that normally require the direct strategy, negation of the relative clause appears to force the indirect agreement pattern. Thus, agreement with a relativised subject is obligatory, as shown in (5):

⁹ The ending *-odd* represents tense only, 3s being the default value. See Harlow 1981: 237 for discussion.

(5) a. y dynion na ddarllenasant y llyfr
 the men Neg read-3pl the book
 'the men who didn't read the book'

b. * y dynion na ddarllenodd ___ y llyfr
 the men Neg read- 3s the book
 'The men who didn't read the boo.'

I will present an analysis of agreement and relativisation in Welsh that accounts for the role of negation in forcing the indirect strategy.

Previous analyses (Awberry 1977, Sadler 1988, Rouveret 1990) derive the differences between the direct and indirect strategies by allowing syntactic movement in the former and blocking movement in the latter;¹⁰ thus, the indirect pattern is treated as a resumptive pronoun strategy. The complementizer *a*, associated with the direct strategy, is treated as in some way forcing or licensing a gap strategy.

Here I will take a position different from previous analyses, and claim that both direct and indirect patterns involve *wh*-movement. The different agreement patterns and the distinct complementizers associated with the two relativisation strategies will be analysed as reflecting the S-structure position of the relevant Case-checking head. I will argue that a resumptive strategy is required only when movement is not available, as is the case with relativisation out of islands.

¹⁰ Previous analyses also include Harlow 1981, which argues that the particle *a* is a pronominal, base-generated in Comp, and Sells 1985, which (working within a very different set of assumptions from those adopted here), relates the complementizer *a* to Case-assignment. In both of these studies, the complementizer *a* is closely tied to the possibility of a "gap" in the relativised position.

The remainder of this chapter will be organized as follows. Section 3.1 will describe agreement in Welsh. Section 3.2 will propose a unified analysis of Welsh relative clauses which is consistent with the agreement patterns in both the direct and indirect strategy. Section 3.3 will provide supporting arguments from *wh*-questions and clefts in Welsh. Section 3.4 will extend the analysis to negated relative clauses, and address the phenomenon of agreement surfacing on negation itself. Finally, section 3.5 will conclude the chapter with some theoretical considerations.

3.1. Agreement in Non-Relativised Structures.

3.1.1. The data. In non-relativised structures, the agreement paradigm is straightforward. Agreement cannot surface if the argument in question is a non-pronominal NP but is obligatory if the argument is pronominal. A pronominal that triggers agreement can optionally be dropped.¹¹ Subject agreement is illustrated in (6), and prepositional, nominal and verbo-nominal object agreement in (7)a–c.¹² Throughout, the proclitics that surface on nouns and untensed verbs are taken to be agreement particles.

(6) SUBJECT AGREEMENT:

- a. gwelodd (*gwelsant) y dynion y ci
 saw-3s (saw-3pl) the men the dog
 'The men saw the dog.'

¹¹ In this way Welsh differs from Irish, which never exhibits agreement in conjunction with an overt argument, whether or not it is pronominal. See chapter 4 for a discussion of Irish agreement facts.

¹² Verb-Noun is the traditional term for verbs that remain uninflected for tense.

- b. gwelsant (*gwelodd) (hwy) y ci
 saw-3pl (saw-3s) (they) the dog
 'They saw the dog.'

(7) OBJECT AGREEMENT:

- a. mae Wyn yn son amdano (ef)
 is-3s Wyn prog speak about-3sm(him)
 'Wyn is speaking about him.'

- b. mae Wyn yn prynu ei dy (ef)
 is-3s Wyn prog buy 3sm house (him)
 'Wyn is buying his house.'

(Sadler 1988: 123)

- c. mae Sion yn ei ddarllen (ef)
 is-3s Sion prog 3s read (it)
 'Sion is reading it.'

In addition, direct object agreement never surfaces on a tensed verb, in which case the pronominal is obligatory. This is illustrated in (8).

- (8) gwelsant (hwy) *(ef)
 saw-3pl they it
 'They saw it.'

3.1.2. Analysis. Hale & McCloskey (1984) (henceforth H&McC) have previously analysed these markers on inflected and infinitival verbs, prepositions and nouns as agreement markers, and have suggested that the

constructions in which they appear involve the presence of a null argument *pro*. Specifically, they propose that *pro* is licensed in those environments where it is governed by AGR:

- (9) * pro unless governed by AGR
- [α F] [α F]
- where [α F] is some combination of person-number features.
- (H&McC 1984:525)

They account for the fact that overt pronouns may double the agreement markers in Welsh in the following way: adopting a proposal made by e.g. Borer (1981) according to which clitics are viewed as features on lexical heads, and thus essentially identified with agreement, the appearance of agreement and an overt argument can be analysed as an instance of clitic doubling. What remains unclear within this account is why the agreement cannot be doubled with non-pronominal NPs, which is the case normally with clitic doubling languages. Stated differently, why is it that — contrary to other null argument languages such as Italian — only pronouns trigger agreement? The very fact that only pronouns trigger agreement remains stipulative under their approach.

I propose a different account for the agreement facts in Welsh. Above, we stated that agreement equals a configuration of structural Case configuration established at S-structure (cf. (2)). In line with this general approach, one may conclude that the agreement patterns in Welsh reflect the operation of Case-checking. Let us thus derive the obligatoriness of agreement with pronominal NPs and the unacceptability of agreement with non-pronominal NPs in terms of Case theory: while non-pronominal NPs are not Case-checked until LF, pronominal NPs must be Case-checked at S-structure. This is stated in (10):

(10) Condition on pronouns:

Pronouns must be in their Case configuration at S-structure.

Note that a difference in the behaviour of pronominal and non-pronominal NPs is not uncommon across languages. In fact, it may be seen even in English, where, for example, pronouns in particle constructions must precede the particle:

- (11) a. John picked up the nut.
b. John picked the nut up.
c. * John picked up it.
d. John picked it up.

Johnson 1990 explains this paradigm by assuming that pronouns raise to their Case position (which for him is the specifier of VP) obligatorily, while non-pronominal NPs do so optionally.¹³ Under the assumptions of the present work, this means that non-pronominal NPs may raise at S-structure or at LF, whereas pronouns raise obligatorily at S-structure.¹⁴

Another example of a pronominal/non-pronominal NP asymmetry comes from German: here, pronouns have a strong tendency to appear to the immediate right of either the complementizer or the finite verb (whichever is in second position), preceding the subject NP:

¹³ See also Koopman 1991, who argues that NPs are Case-checked in Spec/PartP.

¹⁴ We find a similar contrast between pronouns and non-pronominal NPs with the phenomenon of object shift in the Scandinavian languages, which has also motivated a Case-theoretic account in Holmberg 1986, discussed in Johnson 1990.

- (12) a. weil es der Lehrer so befohlen hat
 since it the teacher thus demanded has
- b. weil der Lehrer es so befohlen hat
- c. Heute hat ihn seine Schwester abgeholt.
 today has him his sister collected
- d. Heute hat seine Schwester ihn abgeholt.

While (12)b) and (12)d) examples are not ungrammatical, the word order of (12)a) and (12)c) is the unmarked one.¹⁵ Again, this shows that the behaviour of pronouns is different from that of non-pronominal NPs with respect to surface position. The word orders of (12)a) and (12)c) arguably involve movement of the pronoun to some specifier position at S-structure, to which non-pronominal NPs do not move until LF.¹⁶

Returning to Welsh pronouns, we can see that the situation is less straightforward. Note that we cannot assume that pronouns actually move to their Case position. This is clearly shown in those cases where the pronoun doubles the agreement on the head: here, the subject pronoun follows the finite verb, and cannot precede it:¹⁷

¹⁵ In fact, when the word order of b and d are chosen, speakers tend to put emphatic stress on the verb, perhaps focussing the action, implying that the construction is marked in some way.

¹⁶ I will not go into this matter any further here; however, see Mahajan 1990, which provides evidence from German suggesting that objects can indeed appear in A-positions preceding the subject position, a conclusion that is implied in treating the movement of pronouns to the right of the C-position as movement to a Case position.

¹⁷ Joseph Aoun has suggested to me that one might assume the pronoun to have raised to a specifier position and the verb to have raised to a projection higher than T. Thus, agreement is triggered by pronoun movement and yet compatible with the attested word order. Note, that then we have to assume that in PPs, NPs etc. there is a higher projection as well into which the head may move (or else, assume that for all those projections the specifier is to the right) in order to account for the attested word order of the surfacing pronoun. I will consider this suggestion in future work.

- (13) a. gwelsant (hwy) ef
 saw-3pl they it
 'They saw it.'
 b. * Hwy gwelsant ef.

Let us assume that pronouns form an A-chain with a null pleonastic in the specifier position of their Case checking head.¹⁸ As such, they resemble *there*-constructions in English, like those in (14):

- (14) a. There are three monkeys in the room.
 b. * There is three monkeys in the room.

The examples in (14) show that the verb obligatorily agrees with the post-verbal NP.¹⁹ In Sportiche (1990), this fact is accounted for by the claim that in English, NPs have to establish their Case configuration at S-Structure. Thus, even though expletive replacement takes place at LF, the post-verbal NP has to form a chain through co-indexation with the expletive already at S-structure — hence we find agreement, an S-structure phenomenon, on the verb. In this way French differs from English, since there is no agreement with the post-verbal NP in the French counterparts of the constructions in (14), as shown below:

- (15) a. Il est arrivé trois hommes.

¹⁸ My analysis is compatible with the assumption that nominative Case is checked at AgrS, and accusative Case at AgrO. However, for ease of exposition I will refer to T and V as the Case-checking heads for nominative and accusative, respectively. I understand AgrSP to be the Agr-phrase associated with T, and AgrO the agreement phrase associated with V (or Neg etc.; see section 3.5.1).

¹⁹ Ignoring for purposes of exposition those dialects in which examples like (14)b are grammatical. These dialects would pattern with French below.

b. * Il sont arrivés trois hommes.

For French, Sportiche assumes that NPs do not form a chain with the pleonastic in the Case position at S-structure - hence the absence of agreement.²⁰

Let us account for the Welsh in essentially the same way and speculate that the pronoun, even though it may not move to specifier position, must form an S-structure chain with a null pleonastic in the specifier of its Case-checking head so as to have established its Case configuration at S-structure. The pronominal NP can now optionally drop under identification by agreement morphology on the governing head (see Rizzi 1986). The S-structure configurations of a pronominal prepositional object and a pronominal subject of a [+ finite] verb are illustrated, respectively, in the structures in (16).²¹

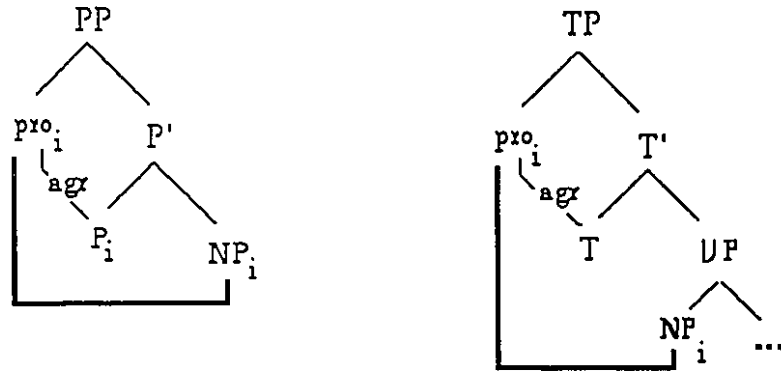
²⁰ Sportiche (op. cit., page ~) supports this claim by the fact that French as opposed to English permits null objects (examples from Authier 1991:722):

- (i) Je trouve *pro* stupide que Marie n'ait rien dit.
- (ii) I find *(it) stupid that Marie didn't say anything.

See Lasnik (1989) and Authier (1991) for different views from the one that assumes the post-verbal NP to be in a Case-chain with the pleonastic.

²¹ Note that there are nevertheless important differences between these Welsh pronominal constructions and *there*-constructions, since the latter impose an indefiniteness requirement on the post-verbal NP. This is clearly not the case in Welsh (pronouns are definite NPs). Also, it is not clear why the pronouns do not actually move to specifier position, as they do in Irish (see chap. 4). I will not address these issues here.

(16)



Let us now turn to the observation that pronominal direct objects of tensed verbs do not trigger agreement on a tensed verb. To account for this, I will invoke the condition on agreement given in (17):²²

(17) LICIT SPECIFIER/HEAD CONFIGURATION:

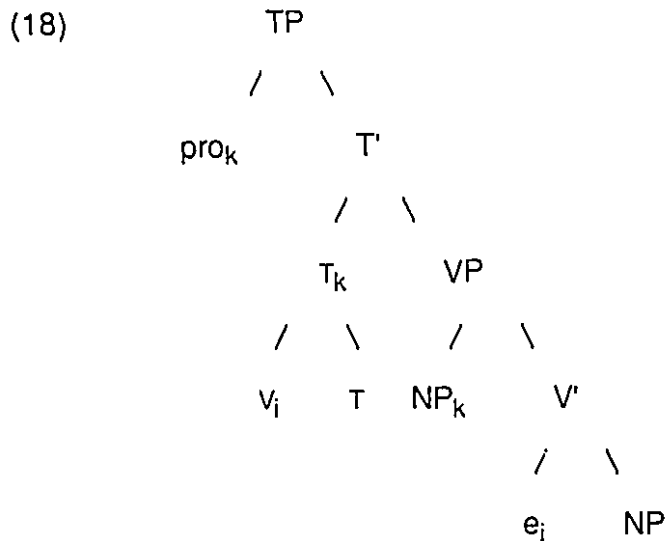
A licit specifier/head configuration is one in which the Case-assignee (or its variable) is in a specifier/head configuration with a morphologically complete member of the chain of its Case-assigner.

The verb in a tensed sentence is not morphologically complete until it has incorporated into T. The verb in T is in a specifier/head configuration with Spec/TP, a position containing the pleonastic co-indexed with the subject,²³ not with the object. Accordingly, a direct object pronominal will never be in a licit specifier/head configuration with its Case-assigner if the latter is a verb in T.²⁴

²² Formulating this condition is inspired by an essentially identical condition that Sportiche 1990 proposes in order to account for the absence of object agreement with tensed verbs in French.

²³ That is, if the subject is pronominal; if not, so at least it is reserved for the subject to move there at LF.

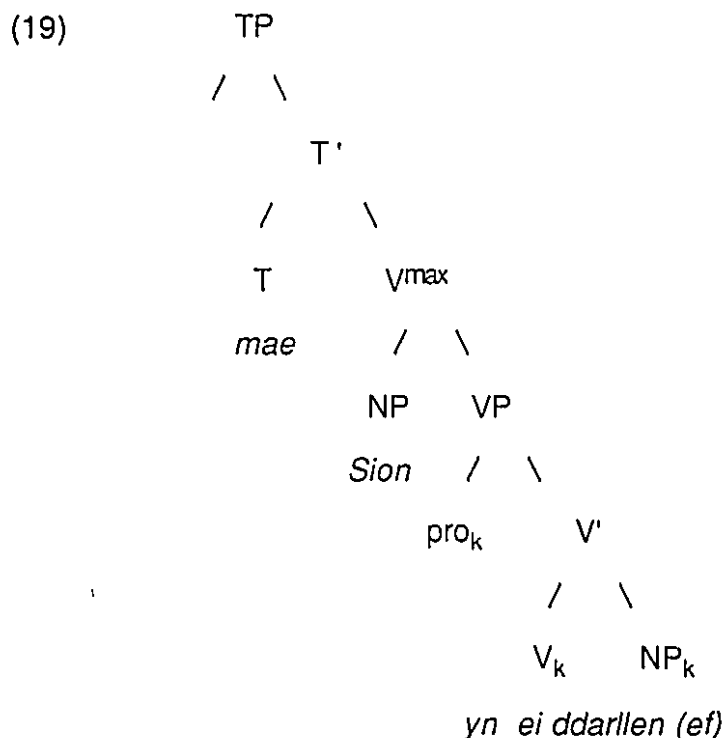
²⁴ For languages that do exhibit object agreement on the tensed verb, we must either adjust the definition of a licit agreement configuration, or else assume that object agreement is established higher than TP in the syntactic tree. The latter option seems more promising, and in



On the other hand, the lower verb in a periphrastic construction like (7)c does not have to raise to T; it is morphologically complete without [Tense] features. Therefore, the null pleonastic co-indexed with the object in the specifier of the VP is in a licit specifier/head configuration, and agreement surfaces on the untensed verb.²⁵

fact, it will be shown further below (section 3.5) that we find instances of object agreement in tensed sentences even in Welsh, namely then, when the verb raises higher than T.

²⁵ For ease of exposition I have represented the VP as a $V^{\max}$, and not as a Larsonian VP layer. I have also ignored the progressive particle 'yn' regarding its role in the phrase structure. I will be more explicit as to the structure of progressives in the chapter on Irish (chap. 4).



The next section will demonstrate how this treatment of agreement allows us to do away with the traditional notion of two distinct relativisation strategies in Welsh.

3.2. Agreement in Relative Clauses.

3.2.1. Background. Previous analyses have treated the indirect strategy as a resumptive strategy which involves no movement. However, these suffer from a serious empirical shortcoming, in their failure to account for a contrast between two constructions that make use of the indirect strategy. The contrast is this one: relativisation out of an island (such as a complex NP or a coordinate structure) permits the pronoun to surface in the relativised position, as shown in (20)a–b); while relativisation out of a PP or an periphrastic clause prohibits the pronominal argument from surfacing in the relativised position, as shown in (21):

(20) a. y dyn [y credodd Dafydd [y si [y gwelodd Mair o]]
 the man **comp** believed-3s David the rumour **comp** saw Mary **him**
 'the man that David believed the rumour that Mary saw him'

b. y dyn y soniais [amdano ef ac Ann]
 the man **comp** spoke-1s about-3sm **him** and Ann
 'the man that I spoke about him and Ann'

(21) y dyn y soniais amdano (*ef)
 the man **comp** spoke-1s about-3sm (**him**)
 'the man that I spoke about'

To capture this contrast, we might wish to say that in (20) movement is blocked, leading to a resumptive strategy; while in (21) movement is possible, and therefore must apply (cf. Shlonsky 1990) — the result of which is that the pronoun cannot surface, since it has moved away. Previous analyses treat all instances of indirect strategy relativisation as instances of a resumptive strategy, and thus cannot account for this contrast. The analysis presented here, however, though not denying the existence of a resumptive strategy in Welsh, does not identify the indirect strategy with a resumptive strategy; instead, it views both direct and indirect strategies as involving syntactic movement to Spec/CP, whenever movement is possible. It is thus able to derive the agreement patterns of the indirect strategy, given with the assumption that

movement must proceed through the specifier position of the argument's Case-checking head.²⁶ This follows from the following condition on A'-chains:

(22) CONDITION ON CHAINS:²⁷

Chains with more than one member must be Case-checked at S-structure.

(22) essentially forces elements undergoing movement to move to or through their Case-position. While this condition applies to both A- and A'-chains, only the latter will be relevant here. The patterns of agreement associated with the two strategies are summarized below.

- (23) a. DIRECT STRATEGY: agreement is not permitted, pronominal cannot surface in extraction site.

NP... [CP Op_i a [TP ... [HP H(*agr)... t_i]...]

- b. INDIRECT STRATEGY: agreement is obligatory where possible; otherwise, obligatory pronominal marks extraction site.

NP... [CP Op_i yr [TP... [HP H*(agr)... t_i]...]

In the analysis adopted here, the agreement patterns and complementizer selection result from differences in head movement. Only subjects and direct objects of tensed verbs exhibit the direct strategy because it

²⁶ See Sportiche 1989, 1990 for a theory of movement that forces movement through specifiers for all A-movement, and for A'-movement out of categories that cannot be adjoined to (PPs, NPs, CPs). My proposal is stronger, in its claim that movement ending in an A'-position must always move through its Case position. The data from Welsh relativisation out of infinitival VPs and negated clauses support this stronger view (as will become clear below).

²⁷ The condition on chains will be derived from independent considerations in chapter 4.

is only their Case-checking heads which raise to C. Other Case-checking heads (such as P) remain within their projection.

The distribution of the two complementizers *a* and *y(r)* may be explained as follows. Assuming that the head of CP is empty at D-structure, we can say that it surfaces as *a* if it is in an agreement configuration at S-structure, and as *y(r)* if it is not in such a configuration.²⁸

The proposal will, in addition, rely on the following two assumptions about agreement:

(24) AGREEMENT REALIZATION CONDITION (ARC):

Agreement is established at the highest licit specifier/head configuration.

(17) LICIT SPECIFIER/HEAD CONFIGURATION: (repeated from above)

A licit specifier/head configuration is one in which the Case-assignee (or its variable) is in a specifier/head configuration with a morphologically complete member of the chain of its Case-assigner.

Since ARC states that agreement is established only at the highest licit specifier/head configuration, agreement on C precludes the realization of subject or direct object agreement elsewhere. In the following sections I will examine the direct and indirect patterns in greater detail.²⁹

²⁸ The complementizer surfaces as *y* before a consonant and as *yr* before a vowel.

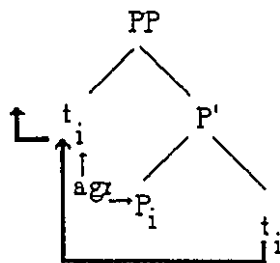
²⁹ The Agreement Realisation Condition in this form is taken to be particular to Welsh and Irish (and possibly other Celtic languages). However, I expect that it will find different applications. In fact, a more general version of it will be derived from independent economy considerations in chapter 4.

3.2.2. Deriving the Indirect Pattern. Consider, as an instance of relativisation employing the indirect strategy, relativisation out of a prepositional phrase. The object of the preposition *wh*-moves to Spec/CP. By (22), movement of this NP must proceed through its Case-checking position — in this case, the specifier of its Case-checking head, P. The A'-chain formed by *wh*-movement thus includes a trace in Spec/PP. Since the head of PP does not move, its D-structure position determines the highest potential Spec/Head configuration for agreement. Thus, agreement is realized on P.³⁰

- (25) y dyn y mae Wyn wedi son amdano (*ef)
 the man **comp** is Wyn perf speak about-3sm (him)
 'the man that Wyn has spoken about'

This is illustrated in the tree below:

(26)



This analysis extends naturally to another instance of the indirect strategy: that involving direct objects in periphrastic constructions, where

³⁰ See however an analysis of agreement along the lines of Rouveret (1992), who assumes that each time there is agreement, there is a functional projection associated with it. In this case, the preposition would presumably move out of its D-structure position into the head of that functional projection. The results of the analysis put forth here are compatible with such an approach.

relativisation of the direct object results in agreement on the untensed verb. This may be seen in (27).

- (27) y dyn y mae Wyn wedi ei weld (*ef)
the man **comp** is-3s Wyn perf **3s** see (**him**)
'the man that Wyn has seen'

In this instance, the Case-checking head does not raise out of its projection; its D-structure position thus determines the highest potential specifier/head configuration for Case-checking. Since the chain of *wh*-movement includes a trace in Spec of the lower VP (or the functional projection associated with this VP),³¹ the configuration is licit and agreement surfaces on the verb.

The "indirect strategy" of relativisation has thus been accounted for. *Wh*-movement to Spec/CP does occur, and agreement is realised on the Case-assigning head of the relativised argument. The pronominal cannot co-occur with agreement in relativisation contexts because it has undergone *wh*-movement to Spec/CP.

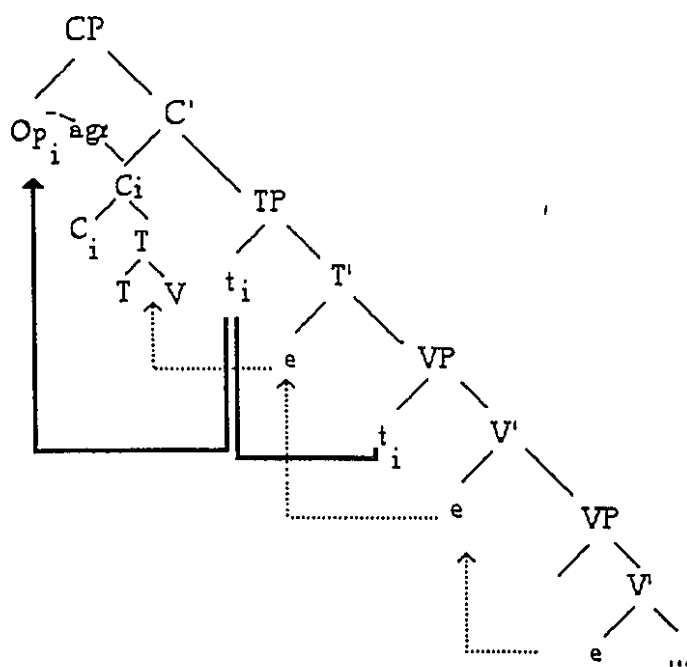
Recall, however, that when the direct object of a *tensed* verb is relativised, agreement does not surface on the verb. Instead, we find the so-called "direct strategy", for which the complementizer is *a*, and the extraction site is indicated neither by a pronominal nor by agreement marking. This direct pattern will be discussed below.

3.2.3. Deriving the Direct Pattern. In order to derive the direct pattern, let us first consider subject relativisation. The Case-assigning head for

³¹ For the purpose of this chapter I shall remain agnostic on the issue of the identity of such a projection.

the subject is T(ense) (or the Agr Phrase associated with T). In a non-relativised sentence, T remains in its D-structure position, and the subject pleonastic in Spec/T triggers agreement on T. This agreement is realized as person/number agreement. However, in a relativised structure, the verb moves through T, where it picks up tense morphology, and then raises to C. The subject operator is in Spec/CP. Since the Case-checking head is in C, the highest potential specifier/head configuration is that relating C and Spec/CP. Accordingly, we find impoverished agreement on C (the head of the projection to which [V + T] has adjoined) instead of the rich agreement associated with Spec/TP. The agreeing form of the complementizer is *a*. The S-structure representation of subject relativisation is shown in (28).

(28)



Now, let us consider the direct object. When the relativised argument is the direct object of a finite clause, the direct object operator is in Spec/CP. The

Case-checking head for the direct object is V. The verb raises to T, and then [V + T] raises to C. Since the Case-assigning head for the direct object is in C, the highest potential specifier/head configuration is again that relating C and its Spec position. Agreement is realized on C, which surfaces as *a*. In this way, the agreement patterns and complementizer choice associated with direct and indirect strategies, respectively, reflect the S-structure position of the relevant Case-checking head.

In the following section, I present data from *wh*-questions and clefts that provide additional support for a Case-based treatment of agreement.

3.3. *Wh*-Questions and Clefts. With respect to the choice of complementizer and the agreement pattern, *wh*-clefts and questions in Welsh pattern with relative clauses. That is, the direct strategy is employed whenever the subject or direct object of an inflected V is questioned or clefted; and the indirect strategy otherwise. The sentences in (29) and (30) illustrate *wh*-questions and cleft constructions, respectively:

- (29)a. Pwy *a* welodd Mair?
 who comp saw-3s Mair?
 'Who did Mary see?'

 b. Beth *y* mae Sion yn ei balu?
 what comp is-3s John prog 3s dig?
 'What is John digging?'

- (30)a. Y ddynes a welodd Sion
 the woman comp saw-3s Sion
 'It's the woman who John saw.'
- b. Yr ardd y mae Sion yn ei phalu
 the garden comp is-3s Sion prog 3s dig
 'It's the garden that John is digging.'

When an element in a PP is questioned or clefted, there is a choice between stranding the preposition or pied-piping the whole PP. If the preposition is stranded, the complementizer must be *y*, and agreement surfaces on the stranded P, as expected. This is shown in (31).

- (31) pa tren y darllenodd y dyn y llyfr [arno]
 which train comp read-3s the man the book on-3sm
 'Which train did the man read the book on?'

However, if pied-piping occurs, the complementizer *yr* is still required, but resumptive element of the extraction site is not:

- (32) ar ba tren y darllenodd y dyn y llyfr
 on which train comp read-3s the man the book
 'On which train did the man read the book?'

The case of pied-piping thus raises a potential problem for analyses that claim a tight relationship between the presence of the complementizer *a* and the possibility of a gap in the relativised position since, with no pronominal or

agreement marking of the extraction site, there is a gap here, and yet the complementizer is not *a* but *y*. This, however, is a nice result for my account, where agreement is a reflex of Case-checking. The complementizer *a* should surface only with A'-chains, which must be assigned Case; but since Case is not assigned to a PP, we predict no agreement on *C*. Questioning, clefting and relativising elements that are not assigned Case should always be associated with the complementizer *y*. This is also supported by (33), which shows a questioned adjunct:

- (33) *pa bryd y daw ef?*
 what time comp will-come-3s he
 'When will he come?'

In the following section, we will see how this treatment provides a natural account of the role of negation in forcing the "indirect" pattern of agreement.

3.4. Negative Relatives.

3.4.1. Negated Subject Relatives. Let us first consider subject relatives, comparing the direct strategy, illustrated in (34) (repeated from (3)), where person/ number agreement is prohibited, with its negated counterpart, illustrated in (35), where this agreement is obligatory.

- (34) a. *y dynion a ddarllenodd ___ y llyfr*
 the men comp read-3s the book
 'the men who read the book'

- b. * y dynion a ddarllenasant y llyfr
 the men comp read-3pl the book
 'the men who read the book'

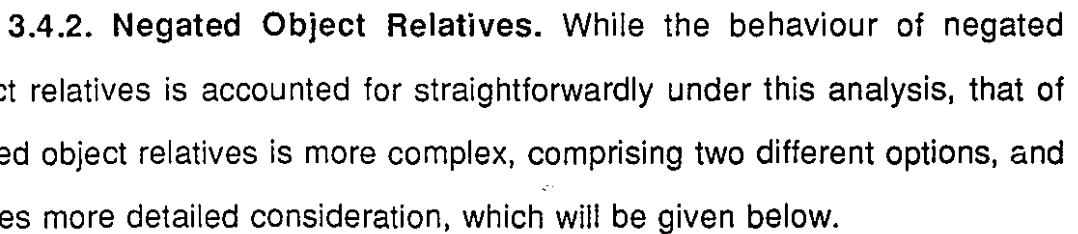
- (35) a. y dynion na ddarllenasant y llyfr
 the men Neg read -3pl the book
 'the men who didn't read the book'

- b. * y dynion na ddarllenodd ___ y llyfr
 the men Neg read - 3s the book
 'the men who didn't read the book'

In the discussion above, we saw how the difference between direct and indirect strategies can be derived from a difference in the respective S-structure position of the Case-checking head. Whereas complements of Ps, Ns and VNs leave their Case-checking head behind in its projection, the relevant head for the subject and direct object raises to C. The pattern we find in negated relatives suggests a parallel explanation: negation prevents the Case-checking head (the V + T complex), from moving into C. Let us assume that negation heads its own projection which intervenes between TP and C. By the Head Movement Constraint (Travis 1984, Baker 1988a) or Relativized Minimality (Rizzi 1990), this head blocks verb movement into C.³² This way, the Case-checking head for the subject (T) remains in T, and the highest Case

³² I assume that Neg does not raise to C. Zanuttini has argued (in Zanuttini 1990 and elsewhere) that NegP selects TP. De Freitas (to appear) uses the same arguments in support of a similar structure for sentential negation in Welsh. However, see also de Freitas in preparation for a different view.

(36)



82

- (37) a. y llyfr na ddarllenais i ef
 the book Neg read-1s I it
 'the book which I didn't read'
- b. * y llyfr na ddarllenais i ____
 the book Neg read-1s I
 'the book which I didn't read'

Recall that the intervening negation prevents the verb from moving into C. While this presents no problem for the licensing of the relativised subject, for which agreement is simply established at TP as opposed to CP, it does present a problem for the licensing of the object. As discussed in section 3.1.1, the object of a finite verb has no licit agreement configuration; the highest position where the verb is morphologically complete is in T, whose specifier is reserved for the subject. This inability of a relativised direct object to satisfy condition (22), requiring that chains be Case-checked at S-structure, in negated relative clauses forces a true resumptive strategy. Let us assume, then, that in this case a base-generated operator in Spec/CP A'-binds the object pronoun in its base-position.³³

Interestingly, this situation finds a counterpart in that of extraction out of the small set of PPs whose heads do not support agreement with a pronominal object. Let us assume that these PPs do not license a specifier position at S-structure. Since the pronoun therefore cannot enter into a chain with a pleonastic in Spec/P, it does not have the option of being Case-checked at S-structure. At the same time, the pronominal cannot be dropped, since *pro* is not

³³ I leave open whether this binding takes place at S-Structure or at LF (but see McCloskey 1990 and Shlonsky 1991).

identified by agreement morphology on the governing head. An example of such a PP is given below:³⁴

- (38) siaradasoch chwi ag ef
talked-2pl you with him
'You talked with him.'

Not surprisingly, if the object of such a preposition is relativised, the pronoun occurs obligatorily in base position.

- (39) y dy y siaradasoch chwi ag ef
the man comp talked-2pl you with him
'the man whom you talked with'

The preposition's failure to license a specifier position at S-structure means that its complement has no way of moving out of PP, since condition (22) cannot be satisfied. Condition (22) can essentially be viewed as forcing there to be a licit agreement position as an escape hatch for A'-bar movement of NPs.^{35, 36}

³⁴ These cases suggest that, for the sake of precision, we should restate the condition that prepositions be in their Case-configuration at S-structure to the statement that they be in their Case configuration *whenever possible*.

³⁵ The preposition's failure to license a specifier gives rise to another problem, possibly unrelated to condition (22), if we assume a restrictive theory of movement according to which movement must proceed through the specifier position of categories (such as PP) to which adjunction is impossible (see Sportiche 1989).

³⁶ This paradigm closely resembles preposition-stranding facts in Dutch, where prepositions that licence a specifier position appear as postpositions if their complement is a pronoun, because the pronoun moves to Spec position. Since they provide a specifier position for their complement to move through, these prepositions are also the ones that can be stranded in *wh*-movement constructions. On this, see van Riemsdijk 1978, whose proposal for an "R-position" as an escape hatch is essentially equivalent to the proposal being made here, as it can easily be made compatible with its assumption that the specifier position plays a key role in Case-checking and extraction processes. Cf. also Sportiche 1990 and Koopman 1991.

Before proceeding, let us consider an alternative explanation, based on Rizzi's (1990) Relativised Minimality, for the impossibility of relativisation out of a negated clause. If we assume that NegP projects an A'-specifier, then A'-movement to Spec/CP would result in a violation of relativised minimality, since the A'-specifier of NegP intervenes between the operator in Spec/CP and the variable bound by it. While this might account for (37), it predicts that a resumptive strategy is also forced in subject extractions. But if subject extraction, as illustrated in (35)a, involved a resumptive strategy, we would expect the pronoun to appear optionally in the relativised position (as we found with relativisation out of islands). This expectation, however, is not borne out, as may be seen from the ill-formedness of (40) (Sadler 1988):

- (40) * y dynion na ddarllenasant hwy y llyfr
 the men Neg read - 3pl they the book
 'the men who didn't read the book'

Let us assume another possibility, namely that NegP is below TP in the syntactic tree. In this case, A'-bar movement across its A'-specifier presents a problem for the object NP, but not for the subject NP, since the subject has Spec/TP as an escape hatch: movement to Spec/TP is an instance of A-movement, hence the intervening A'-specifier of NegP would not induce minimality. This would give us the right results. However, the fact that the negation particle appears to the left of the tensed verb makes this solution unlikely, as it suggests NegP to appear outside, i.e. higher in the syntactic representation, than TP. Note furthermore, that we would not expect an account in terms of relativised minimality to affect argument NPs in any case, as these receive a referential theta index, and thus do not need to be antecedent

governed in order to pass the ECP. Only non-arguments should be affected by the presence of an intervening A'-specifier (cf. Rizzi (1990) for a detailed discussion).

3.4.2.2. Object Agreement on Negation. There exists another option for relativised object NPs in negated clauses, which is an object agreement marker appearing on the Neg element itself. Thus, we find (41) as a variant of (37)a, with the agreement marker *s* on Neg. In these cases, the object pronoun can be dropped, since *pro* is properly identified by the agreement on Neg.

- (41) *y llyfr nas ddarllenais i (ef)*
 the book Neg-agr read-1s I (it)
 'the book which I didn't read'

Under the approach that takes agreement to be a reflex of a specifier/head configuration at S-structure, the pattern in (41) suggests that the object pronoun is in a chain with a null pleonastic in Spec/Neg. This presents us with an interesting possibility: namely, that Spec/Neg provides the object with a Case position.³⁷ This is especially surprising, since it implies that there is an A-position for the object that is higher than Spec/TP, the highest A-position for the subject. This assumption, however, is problematic for Rizzi's (1990) theory of Relativised Minimality, since the A-specifier in Spec/TP intervenes between the A-specifier in Spec/NegP and the D-structure position of the object. Note that there are other, unrelated facts that are difficult to square with relativised

³⁷ See de Freitas in preparation for an extensive discussion on the interaction of NegP and object-Case.

minimality. These include weak crossover and binding facts from Hindi and German, as presented by Mahajan (1990), which indicate that the object is, in certain instances, in an A-position higher than the position of the subject. Moreover, other current assumptions — such as Chomsky's (1990) assumption that objects are Case-checked in an AgrOP which is outside the VP, and thus higher than the base-position of the subject NP — are in conflict both with relativised minimality and with the specified subject condition (or its reinterpretation in binding theory); so that we are forced to adjust the definition of NP-movement in any case.

We could do this by modifying the notion of “complete functional complex” in the sense of Aoun 1979 and Chomsky 1981, 1986a, b in the following way: let us say that the A-domain for an argument extends as high as the highest A-projection (i.e. head which licenses an A-specifier) into which its theta-assigner raises. If the theta assigner — in this case, the verb — raises to Neg, which is higher than TP, it extends the A-domain for the object beyond Spec/TP. In this way, Spec/NegP may provide the pronominal object with a way of satisfying the S-structure Case-checking requirement.³⁸ Note, however, that a problem remains for this account of constructions like (41), because it seems that the direct object still cannot undergo operator movement to Spec/CP — as is the case with the normal indirect strategy — even though an agreement

³⁸ Note that verb movement into Neg is, then, permitted; however, if the incorporation of Neg into C is still prevented, so is verb movement to C, thereby preserving the account of the indirect strategy for negated relatives given above.

Note also (this was pointed out by Joseph Aoun) that agreement intervenes between the negative particle and the tensed verb. This order is surprising if we assume — as we do — that the verb incorporates into Neg and subsequently agrees. We would rather expect the agreement to appear outside of the negation particle, i.e. to the left of it. I would like to suggest that this can be accounted for by properties pertaining to head movement in the sense of Rizzi & Roberts 1990). The negative particle does not morphologically subcategorize for the verb, since it is not an affix but a clitic-like element. It thus does not, in spite of the verb having incorporated into Neg, constitute a part of the verb's morphology, or — in other words, negation and the verb do not constitute a morphological unit. As a result, agreement does not surface outside the whole complex, but only on the head of NegP, namely the negative particle, itself.

position is available as a landing site. This is evident from the optional surfacing of the pronominal in (41): recall that the optional surfacing versus the impossibility of an overt pronoun in the relativisation site was used as a diagnostic for whether movement takes place or whether a resumptive strategy is employed. Surfacing of the pronoun is strictly ruled out in relativised contexts derived by operator movement (cf. (27)). Therefore, we are here clearly presented with an instance of a non-movement strategy with a base-generated operator. This raises the question of why a resumptive strategy is forced in such cases; since agreement on Neg would satisfy the condition on chains (see (22)), we expect operator movement to Spec/CP to be just as possible as in the case of subject relativisation in negated clauses.

I have maintained throughout that an element moving to Spec/CP must move through its Case position. This implies that it must A-move to its highest A-position, and then proceed to Spec/CP by A'-movement. The object, however, is apparently unable to do so — generally speaking, not a surprising fact, given that each of the competing relevant theories, the specified subject condition (i.e. binding principle A), relativised minimality and the theory of movement proposed in Sportiche 1988/90 (according to which all A-movement must proceed through each intervening specifier), all predict that the object NP will fail to A-move to Spec/NegP, across the subject in Spec/TP (or in its base position). In order to A-move to its Case position, the object would have to move through Spec/TP, which is not a possible option for the object.

On the other hand, I have also suggested (in order to account for the object agreement that we find on Neg) that the A-domain of the object is extended by V-movement to Neg. We are thus faced with the following difficulty: on the one hand, the appearance of the agreement marker (together with the optional drop of the object pronoun in its base-position) suggests that the object

is in an A-chain with a pleonastic in Spec/NegP; on the other hand, the object's inability to A'-move to Spec/CP suggests that it is unable to move to its Case-checking position.

I propose to resolve this difficulty by assuming that the forming of A-chains by co-indexation is less restricted than actual A-movement.³⁹ However, whatever locality condition prevents A-movement would presumably be relaxed at LF, consistent with the view of Case theory outlined in chapter 1, according to which all NPs must move to their Case-checking position at LF (see Chomsky 1986a on expletive replacement at LF).

Summarizing, there are two options for the direct object of tensed verbs in negated relative clauses in Welsh:

- (i) The verb does not raise to Neg, so there is no licit specifier/head configuration for the direct object at S-structure. Accordingly, a resumptive strategy applies.
- (ii) The verb moves to Neg and extends the A-domain such that it includes Spec/Neg. In this case, Neg agrees with the direct object, and the object pronoun may be dropped (as it is properly identified by agreement). The movement strategy is nevertheless prevented, since the object is not permitted to move through its Case-position at S-structure.

³⁹ What I am proposing here is, in a sense, the same as what seems to be the case concerning A'-chain formation: namely, that if an A'-relation is established at S-structure in relativisation and questions involving a resumptive strategy (as argued in, e.g., McCloskey 1990 and Shlonsky 1991), then A'-binding of a pronoun *in situ* by a base-generated operator is subject to less strict locality conditions than syntactic A'-movement. Here, I am claiming the same about A-chains: chain formation by indexation is less restricted than chain formation by movement. Similar facts have been attested in agreement patterns in Mohawk; see Baker in preparation.

Under the analysis presented here, there are only two ways for direct objects of verbs to undergo operator movement: (i) if the verb does not raise out of VP (as in infinitival/periphrastic constructions), and (ii) if the verb raises all the way to C (as in non-negated object relatives). This restriction on *wh*-movement for direct objects in Welsh arises from their ability to be Case-checked higher in the tree than subjects, but inability to NP-move to that position.

3.5. Object Agreement on Other Functional Heads. Object agreement on Neg in relative clauses is an instance of a more general phenomenon in Welsh. Pre-sentential NegP, as well as other pre-sentential functional heads, such as emphatic, infinitival, and interrogative markers, permit object clitics to appear on them and thus seem to provide a potential specifier/head configuration for the direct object in non-relativised contexts also.⁴⁰ Consider (42).⁴¹

- (42) a. ni' th gosba (di)
neg-2s will-punish-3s you
'He/she will not punish you.'
- b. Fe' th welodd (di)
pt-2s saw-3s you (emphatic marker)
'He/she saw you.'

⁴⁰ Crucially, as is the case with Neg, they are restricted to appear with object agreement and can never appear with subject agreement. (I will return to this matter in section 3.5.1.)

⁴¹ Examples in this section are taken from Sadler 1988: 75-76.

- c. pe'th welwn
 if-2s see-condit-1s
 'if I were to see you'

Object agreement markers also appear in relativised (or more generally A'-moved) contexts, even when the relativised argument is not the object:

- (43) a. paham na'th gredodd (di)?
 why neg-2s believe-3s you?
 'Why didn't he/she believe you?'
 b. y dyn a'm gwelodd
 the man pt-1s saw-3s
 'the man who saw me'

This shows that the possibility of a direct object triggering agreement on a head is independent of whether or not it enters into an A'-relation. Rather, agreement appears to require a category that provides an A-position for the object.⁴² I propose that these categories can head a projection (which might be labelled Ill(ocutionary) Phrase).⁴³ This recalls the conclusion of the previous chapter, where I argued that IntP provides a Case-licensing position for the subject in Quebec French. The (rather surprising) difference here is that the functional category above TP seems to be restricted to the object NP in Welsh. This might suggest that the Case position for objects is higher than that for subjects in

⁴² Or that triggers movement of the verb higher than T.

⁴³ See Laka (1990), who brings together a similar collection of features (emphatic, negative, declarative, etc.) that can head a projection which she calls "Sigma-phrase".

Welsh, but not in French — from which certain binding and weak crossover facts would follow (for example, the counteracting of weak crossover effects). Recall, however, that, despite the availability for chain formation of a Case position higher than TP, actual NP-movement of the direct object to that position is prohibited (which is what prevents the availability of the movement strategy in negated relatives). This means that we will never find a variable in that higher object-Case position, which could then bind a pronoun in subject position. I leave this issue for future research.

3.5.1. What and where is AgrOP? The preceding discussion raises an interesting issue. I have argued that certain categories provide an A-position for the object higher than the highest A-position for the subject. According to Chomsky (1990), the functional projection under which accusative objects are checked is generally AgrOP. A question therefore arises whether these categories themselves provide a specifier that is a Case-licensing position for objects,⁴⁴ or whether AgrO in Welsh is higher in the syntactic representation than AgrS, and the AgrO projection is available (or “activated”) at S-structure only if one of the categories Neg, Emph, Int, etc. is projected in the syntax. In the latter case, we might assume that AgrO needs a morphologically overt category (e.g. the Neg particle), higher than TP, to support it with lexical material. While I

⁴⁴ Some corroborating evidence for my proposal that agreement is established directly on the head of Neg is shown in (i), where the realization of 3rd person object agreement varies according to the functional head on which it surfaces:

(i)

	Neg	Infinitive	Other (emphatic etc)
3s	-s	-w	-i
3pl	-s	-w	-u

have been assuming that the verb raises into that projection, the pre-sentential particles are clitic-like elements, and the agreement morphology itself shows up on these particles; perhaps the finite verb cannot bear more than one agreement morpheme, and thus, even if it were to raise to AgrO, it would not be able to support agreement with the object. In this way, the fact that these particles support agreement morphology makes a licit Case-configuration available for the direct object at S-structure.

Mahajan (1990) presents evidence from Hindi and German that there is an A-position for the object available which is higher than at least the base-position of the subject. However, a central assumption of chapter 5 is that the Case-position for direct objects, i.e. the accusative Case position is within a Larsonian double layer VP, that is lower than the base-position of the subject (cf. also Sportiche (1990), Travis (1991)). These two observations seem in conflict. I will argue that both assumptions are right: the Case-positions which determines accusativity is situated low in the syntactic representation, but that the ultimate Case-checking position for the object NP is higher up, possibly above TP, as suggested by the Welsh. I will post-pone further discussion of this issue to after chapter 5.

3.6. Conclusion. The analysis of Welsh agreement patterns and relative clauses presented in this chapter rests on the following assumptions regarding Case and agreement:

- (i) Structural Case is checked under a Spec/Head configuration at S-structure or at LF.
- (ii) Agreement is a reflex of structural Case-checking at S-structure (either by movement to Spec or by chain formation).

- (iii) In Welsh, non-pronominal NPs are Case checked at LF, and pronominal NPs are Case-checked at S-structure by chain formation (when this is possible).

It was argued that the difference between direct and indirect strategies does not reflect a difference, respectively, between movement and resumptive strategies, but rather reflects the S-structure position of Case-checking heads. Under my analysis there are only two instances in which a resumptive strategy is forced: (i) if relativisation proceeds out of an island (as in the case of coordinate structures); (ii) if the condition that A'-chains be Case-checked at S-structure cannot be satisfied (as in the case of direct objects in negated relatives and uninflecting prepositions). In this way, the analysis provides a natural account both for the similarities and the differences in the behaviour of subjects and direct objects with respect to relativisation in Welsh. In positing the ARC, which accounts for the distinct patterns of relativisation, the analysis also explains the lack of direct object agreement on tensed verbs.

With respect to negation in Welsh, it was argued that Neg intervenes between C and TP and that it does not raise to C, thus blocking movement of the verb-tense complex to C by relativised minimality; and that Neg provides an A-specifier for the direct object when the V moves into Neg. The pronominal object was thus seen to figure in a licit specifier/head configuration, and to be able to be Case-checked at S-structure. This case can be extended to other pre-sentential (possibly "illocutionary") heads.

3.6.1. Case under Comp. Finally, it was argued that in Welsh, Case-checking of either the subject or the direct object can take place in Spec/CP if their Case-checking head is contained in C; in other words, an NP can be

Case-licensed in that position. However, Spec/CP is not an A-specifier, since A'-binding takes place from that position.⁴⁵ We must thus allow for a subject or a direct object NP to be Case-licensed in an A'-position. This conclusion was arrived at independently in the previous chapter, on the basis of data from A'-moved subjects in French and English. It also recalls certain of Kayne's examples, where an element picks up Case in COMP (see Kayne 1984: 5 ff.). In the following chapter, we will see that a similar conclusion can be reached on the basis of Irish *wh*-movement contexts. We will therefore need to revise the theory, to accommodate the notion of 'Case-bar-positions' — one which is independent of the A/A' distinction.

⁴⁵ See Shlonsky 1991 for a proposal that some Cs licence an A-position as their specifier. Under Shlonsky's analysis, the operator in Spec/CP adjoins to CP at LF in order to be in an A'-position. Welsh does not lend support to this proposal, since, as I have shown, an object is not able to A-move across the subject in this language (cf. negated object relatives). If Spec/CP were an A-position, then the object would not be able to move there and we would always have a forced resumptive strategy for non-negated object relativisation. I will return to Shlonsky's proposal in more detail in chapter 4.

Chapter 4

CASE at S-Structure in Irish¹

4. Introduction. In the preceding chapter, it was argued that Welsh, a language where NPs generally raise to their Case checking position at LF, has certain constructions in which NPs are Case-checked at S-structure. More specifically, it was argued that pronouns establish a Case chain at S-structure whenever possible, and that *wh*-moved elements must be Case checked at S-structure. In this chapter, I will extend the analysis of Welsh to another VSO language, namely Irish. I will make the same basic assumptions about Irish word order and Case checking as I did for Welsh — namely, that Irish is a VSO language which has no subject agreement on the verb when the NP is overt. I take this to indicate — consistent with the assumptions given in the introduction of chapter 3 — that the subject remains in situ at S-structure and raises to the specifier position, where it is Case checked, only at LF. This explains the absence of subject agreement on the verb, since agreement is an S-structure triggered phenomenon, feeding into PF. However, as in Welsh, we find constructions involving pronominal NPs and A'-movement, both of which suggest that, in these instances, NPs are Case-checked at S-structure.² It is these constructions that will be discussed in this chapter.

¹ The core of this chapter was presented at the Annual Workshop on Lexical-Syntactic Relations at UQAM in Montréal and appears in the proceedings of that conference. The Irish data, unless otherwise attributed, were provided by Máire Ní Chiosáin; thanks also to Eamon O Ciosáin and Anna Ní Ghallagher for providing their judgements. The following abbreviations are used: DEM(onstrative), CONTR(astive), EMPH(atic), COP(ula), PROG(ressive), COND(itional), 1Sm... (1st person singular, masculine...), 1Pl.. (1st person plural, fem....), GEN(itive).

² See Guilloyle (1991), who argues against any instance of NP-movement in Irish and proposes that functional categories do not project beyond one bar-level in this language. The analysis of agreement patterns, infinitives and *wh*-movement contexts that follows is not compatible with that view.

The chapter is organized as follows: section 4.1 analyses the agreement patterns that we find with pronominal NPs. Section 4.2 presents evidence from infinitives for the hypothesis that objects move to their Case position. Section 4.3 offers a Case-theoretic account of two different relativisation strategies. Sections 4.4 and 4.5 relate infinitives and relativisation structures and discuss the ramifications of the evidence that the Irish data present us with.

4.1. Agreement. In Irish, as in Welsh, we find prepositions, nouns, deverbal nouns and certain verbs in some tenses³ agreeing with the pronominal NP that they govern, while there is never any agreement with non-pronominal NPs. (§1) and (§2) illustrate this for prepositions and nouns, respectively:

(1) a. Tá Nóra anseo le h-Ailill.
is Nóra here with A.

b. Tá Nóra anseo leis.
is Nóra here with-3Sm
'Nóra is here with him.'

(2) a. doras Chian
door Cian-GEN.
'Cian's door'

³ I will return to this issue shortly (section 4.1.4).

- b. mo dhoras/ a dhoras
1S door / 3Sm door
'my door/his door'

A significant difference from Welsh, however, is that the pronoun cannot be doubled when the Case-assigning head is inflected.

(3) WELSH

- a. mae Wyn yn son amdano (ef)
is W. prog speak about-3Sm him
'Wyn is speaking about him.'
- b. gwelsant (hwy) y ci.
saw-3P (they) the dog
'They saw the dog.'

- (4) a. a dhoras (*i)
3Sf door she
'her door'
- b. Feicim (*mé) an doras.
See-1S I the door
'I see the door.'

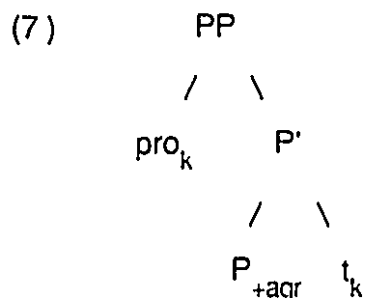
Following the assumptions sketched out in chapter 3, I will continue to assume that agreement reflects a Case configuration established at S-structure, which I repeat for convenience below:⁴

- (5) AGREEMENT HYPOTHESIS
Agreement equals a configuration of structural Case at S-structure.

Furthermore, as was argued for Welsh pronominal agreement, I will derive the paradigm described in (\$1)-(\$2) from the requirement that pronouns in Irish be in a Case configuration at S-structure if possible:

- (6) Pronouns in Irish are in their Case configuration at S-structure.

Recall from the discussion in chapter 3 that pronouns were assumed to form a chain by coindexation with an expletive *pro* in the specifier of their case-checking head, thus triggering agreement. The pronoun in its base position was then free either to be spelt out or drop, being properly identified by agreement. I propose to derive the fact that pronouns in Irish can never co-occur with agreement of the governing head by claiming that they actually move to Spec position. There, being properly identified by agreement on the head, they obligatorily drop, i.e. they are not spelt out.⁵



⁴ See reference cited in note 8 in chapter 3.

⁵ I assume pronouns to be feature matrices to be spelt out if necessary.

This explains the difference between Welsh and Irish: pronouns in Irish cannot appear overtly in their base-generated position as they do in Welsh, since they have moved away from that position.⁶ However, note that they also cannot surface overtly in specifier position:

- (8) tá Nóra anseo (*é) leis.
 is Nóra here him with-3Sm
 'Nóra is here with him.'

I will maintain that Irish generally does not license specifiers with phonetic content at S-structure (but see the following paragraph), so only null categories, such as *pro*, are permitted to move to specifier position. This claim will be motivated in further detail, and derived, below (section 4.2.2.3.).

4.1.2. Pronoun Movement.

4.1.2.1. *Preposition pied-piping*. Some independent evidence for the claim that the S-structure movement of pronouns to Spec-position takes place in Irish but not in Welsh comes from interrogative PPs. Questioning out of a PP in Irish has two options: either the P is stranded, or it is pied-piped to Spec/CP. The same is possible in Welsh. However, while the *wh*-phrase follows

⁶ The impossibility of doubling the pronoun when there is agreement on the governing head has motivated analyses of pronoun incorporation as in Anderson 1982, Hale 1989, Baker & Hale 1990. Although these analyses account for the data equally successfully, the general framework of agreement and Case assumed here favours an analysis in terms of movement to specifier — a conclusion, I believe, supported by the data presented in the following section. Moreover, my treatment of agreement with pronouns subsumes the very similar phenomenon of agreement in Welsh — a language closely related to Irish. Note, that transferring the logic of argumentation of these authors over to those Welsh cases involving the indirect strategy that disallow doubling of the pronoun in the relativisation site (which I analysed as movement cases; see chapter 3), one might be lead to assume that pronoun incorporation is obligatory in just those instances — a rather surprising result.

the preposition in Welsh, it precedes it in Irish. Moreover, the *wh*-phrase in Irish must be monosyllabic; so that pied-piping cannot occur with a complex *wh*-phrase. The contrast with Welsh is illustrated in (9)–(10).

(9) WELSH:

- a. pa tren y darllenodd y dyn y llyfr arno?
which train comp read the man the book on-3S
'Which train did the man read the book on?'
- b. Ar ba tren y darllenodd y dyn y llyfr?
on which train COMP read the man the book
'On which train did the man read the book?'

(10) IRISH:

- a. Céard a bhfuil an leabhar air?
what comp is the book on-3S
'What is the book on?'
- b. Céard air a bhfuil an leabhar?
what on-3S COMP is the book
'On what is the book?' (O'Siadhail 1983: 92)
- c. * Cén fear leis a raibh tú ag caint?
which man with-3S COMP were you talk(PROG)
'Which man were you talking to?' (McCloskey 1990)

(10)b suggests that a *wh*-word can appear in Spec/PP at S-structure in Irish so long as it is monosyllabic.⁷ The restriction on monosyllabicity seems essentially to be a requirement that the *wh*-word be a light pronominal element. Note that cases like (10)a/b constitute exceptions to the claim that Irish specifiers do not license overt lexical specifiers. Thus, a *wh*-pronoun may exceptionally appear in Spec position of its Case-assigning head P. In these cases, the condition on recoverability forces the pronoun to be spelt out, because of its [+ WH]-feature.⁸

4.1.2.2. Pronoun-postposing. Additional evidence that pronouns undergo movement to their Case position in Irish comes from pronominal direct objects of finite verbs. Recall from the discussion of Welsh in chapter 3 that direct objects of tensed verbs cannot be Case-checked at S-structure. This was derived from the following condition on agreement:

⁷See McCloskey 1990 for a different analysis of these constructions. He assumes that the PP is adjoined to the interrogative pronoun, yielding a structure like [CP [NP [NP Cé] leis]]. Note that my analysis makes the structure of these cases seem less idiosyncratic, since we do not have to assume an extra peculiarity of Irish syntax. Movement of pronouns to Spec in PPs is common in Dutch (see Koopman & Sportiche 1988; van Riemsdijk 1978) and is also found in German:

- (i) Stell es darauf. (put it thereon)
- (ii) Worauf hast du es gestellt? (whereon did you put it?)

See section 4.3.3 below for more about these German facts.

⁸ Another exception might be Spec/CP, which also licenses overt lexical material at S-structure, if we assume that *wh*-movement moves *wh*-phrases to Spec/CP at S-structure. However, it has been argued against *wh*-movement of overt *wh*-phrase to Spec/CP (McCloskey 1979, 1990). Instead, we might assume interrogatives to be clefts with a deleted copula (the copula in Irish is often dropped, most frequently in identificatory and cleft sentences (O Siadhail 1989:245); see also chapter 2 on Quebec French)). However, note that surfacing of the copula is in fact impossible in interrogatives, while generally omission of the copula is optional. Also, cleft sentences, which will not be discussed here (see Noonan in preparation), behave differently from interrogatives in that they always use the direct strategy marker *aL*. This suggests that interrogatives are in fact not hidden clefts, but exhibit movement of the overt *wh*-phrase to Spec/CP. Apart from this, nothing much hinges on the matter for present purposes.

(11) LICIT AGREEMENT CONFIGURATION:

A configuration where the Case-assignee (or its variable) is in a specifier/head configuration with a morphologically complete member of the chain of its Case-assigner.⁹

Since the verb in a tensed sentence is only morphologically complete once it has incorporated into T and, once there, can only agree with the subject in Spec/T (unless it moves further up), the object has no licit specifier/head configuration, and thus must be spelt out. With respect to agreement, the same holds for Irish: finite verbs never show agreement with object NPs. Again I assume this to follow from the fact that it has no licit agreement configuration: the verb is only morphologically complete once it moves to Tns; if it does not move any further, then the object has no licit agreement configuration, since the specifier of TP is 'reserved' for the subject NP. For that reason it must be expressed as an overt pronoun.

However, in Irish, pronominal objects undergo a movement operation which is not attested in Welsh. This movement is referred to as pronoun post-posing, since the pronoun moves rightward (examples from Chung & McCloskey 1987: 195):

- (12) a. Thug mé cúig phunt do Chiarán i nDoire inniu.
give(PAST) I five pound to Ciaran in Derry today.
'I gave five pounds to Ciaran in Kerry today.'
- b. Thug mé do Chiarán i nDoire inniu é.
give(PAST) I to Ciaran in Derry today it.
'I gave it to Ciaran in Kerry today.'

⁹ See reference cited in fn 21 in chapter 3.

(13) Chonaic mé anuraidh é i mBaile Átha Cliath.

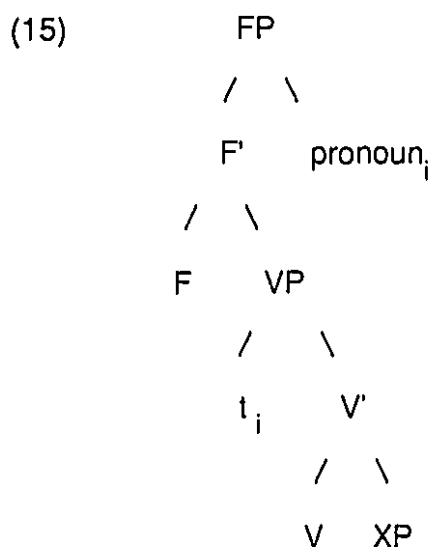
see(PAST) I last-year him in Dublin

'I saw him in Dublin last year.' (Chung & McCloskey 1987: 195, n. 18)

Chung & McCloskey (1987) analyse pronoun post-posing as an adjunction rule:

(14) Right-adjoin a pronoun to a constituent that contains it

I propose to analyse this movement rule as a substitution movement instead, claiming that the pronoun moves to a specifier position on the right.¹⁰



¹⁰ For the moment, I will simply call the projection to which I assume the pronoun to move FP (for 'functional projection'). I assume that the direct object is base-generated in the specifier of a lower VP projection in a Larsonian type VP projection, and a further argument (if present) as the sister of V. Any additional argument within the VP projects as another VP layer (see Larson's 1988 *Single Argument Hypothesis*). This anticipates the assumptions about the internal phrase structure of VPs that will be made in chapter 5. For why the specifier is to the right in these cases, I haven't any explanation.

This analysis, if correct, provides further evidence for the assumption that in Irish, pronouns, and only pronouns, undergo movement to specifier position in the syntax, while in Welsh they merely form a chain with an expletive *pro* in the specifier position of their Case-checking head. Note, that this again constitutes an example where Irish does seem to license overt phonetic contents in a specifier. It seems that at this point we can extrapolate the following generalisation from the data: Irish licenses light elements (monosyllabic, pronominal elements) in specifier positions, but only if necessary. This is the case with *wh*-elements in Spec/PP and pronouns of finite verbs: in both cases the contents of the specifier — if null — would not be recoverable.

4.1.3. Coordinate NPs and agreement. The movement hypothesis of the attested agreement patterns in Irish, as it is advocated here, is faced with a serious challenge, coming from coordinate structures. As illustrated in the examples below, an inflected verb form whose subject is a coordinate NP containing one or more pronouns agrees merely with the first pronoun:

(examples from McC&H 1984: 501)

(16) a. *dá mbeinn -se agus tusa ann.*

if be(COND 1S) CONTR and you there

'if I and you were there'

b. *Chaithfinn -se agus mo chuid fear muscailt*

must(COND 1S) CONTR and my share men(gen) wake up (-fin)

'I and my men would have to wake up.'

c. An mbeitheá féin agus bean an ti sásta?

Q be(cond 2S) REFLEX and the-woman-of-the-house satisfied

'Would you and the woman of the house be satisfied?'

This is a potential problem for the following reason: if we assume that agreement derives from pro moving into the specifier of the agreeing head, which in the case of subjects is Spec/TP, then we must assume the possibility of movement out of a coordinate structure.¹¹ This is a problem, since coordinate structures can generally shown to be islands. However, note that this fact is nonetheless also a problem for the alternative account of these inflected forms, namely that of Hale & McCloskey (1984), which assumes that agreement on the lexical head licenses a pro in the position governed by it (see chapter 3 for more details about their proposal). Any theory that attempts to subsume locality constraints on movement under the theory of government would claim that the individual conjuncts in a coordinate structure are accessible to government.¹²

¹¹ Coordination of two NPs within a PP is generally not accepted. Rather, the preposition is repeated (see (ii)), thus conjunction of two PPs.

(i) a. *? Labhair sé liom -sa agus mo mháthair.
speak (past) he with (S1) -CONTR and my mother 'He spoke to me and my mother.'

b. *? Tá teach agam féin agus Ailill.
be(PRES) a-house at (S1) REFLEX and Ailill 'Ailill and I have a house.'

(ii) a. Labhair sé liom -sa agus mo mháthair.
b. Tá teach agam féin agus ag Ailill. [McC&H 1984:509]

¹² The only approach that is straightforwardly compatible with the data from coordinate subject constructions is the one which takes inflected forms to be derived by a post-lexical re-bracketing process, such as illustrated below:

(i) V [pro and NP] → [V pro] and NP

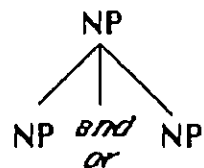
Evidently, I would consider that kind of account only if everything else failed, since it would lose both the cross-linguistic correlation of agreement and Case theory as well as the Case theoretic account of the indirect strategy (see chapter 3 for Welsh and section 4.3.3. below for Irish).

As H&McC show, trying to solve the problem by simply assuming the second NP-conjunct to be a parenthetical element is unsuccessful. Their evidence comes from 'group-level' predicates that require a plural (or dual) subject.

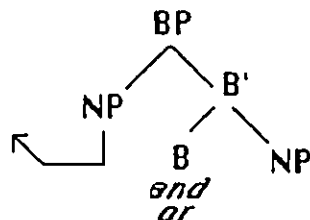
- (17) a. dá mbeitheá féin agus Rachel ag gabháil i gcleamhnas
 if be(COND 2S) REFLEX and Rachel go(PROG) in engagement
 'if you and Rachel were getting engaged' [H&McC:502]

To resolve our dilemma, I would like to suggest that coordinate structures are not represented symmetrically as in (18), but asymmetrically, along the lines of (19) (BP stands for Boolean Phrase);¹³ and that the first conjunct in a coordinate structure is, in fact, able to undergo movement.

(18)



(19)



¹³ See Munn 1987 for a proposal along these lines for coordinate structures. See also Aissen ~~~ and McNulty ~~~ for arguing that coordinate structures are PPs in certain languages, which would give us similar results if we assumed this for Irish.

This, of course, makes the prediction that we should find movement of the first conjunct out of coordinate structures to be possible generally — a prediction that, at first sight at least, is not borne out by the data. We can neither relativize out of a coordinate subject or object NP (cf. (20)), nor move a pronominal conjunct of a coordinate object NP by the rule of pronoun-postposing (cf. (21)).

- (20) a. * an fear a chonaic mé [t agus Nóra] inné.
 the man who saw I(NOM) and Nóra yesterday
 *‘the man who I saw [t and Nóra] yesterday’
- b. * an fear a chonaic [t agus Nóra] Máire inné.
 the man who saw and Nóra Máire yesterday
 * ‘the man who [t and Nóra] saw Máire yesterday’

- (21) a. Chuir Seán é sin agus leabhar ar an mbord.
 put Seán it DEM and a book on the table
 ‘Seán put this and a book on the table’
- b. * Chuir Seán [t_i agus leabhar] ar an mbord é sin_i.

However, wishing to maintain the movement analysis of deriving agreement with pro arguments, I will suggest that the ill-formedness of the examples above does not in fact result from a principled prohibition against moving out of coordinate structures, but from an independent aspect of coordinate structures in Irish. This is related to a general property of pronouns, namely, that they cannot be conjoined with another NP unless they bear one of a set of suffixal

elements that give the pronoun an emphatic, a contrastive or a demonstrative interpretation (examples from McC&H: 503ff):

(22) a. * mé agus Ailill

'I and Ailill'

b. Ailill agus mé

'Ailill and I'

c. * mé agus tú

'I and you'

(23) a. mise agus tusa

I+CONTR and you+CONTR

b. mé féin agus Ailill

I REFLEX and Ailill

c. mise agus Ailill

I + CONTR and Ailill

In order to account for the ill-formedness of examples (20)–(21), I will first describe the rather complex properties of these elements in more detail.

4.1.3.1. Suffixal elements of pronouns and NPs. There are three types of suffixal elements that can 'modify' pronouns and NPs in general. Below, I describe them in turn.

I. the suffixal element *féin* attaches to a pronoun to give it either a reflexive or an emphatic interpretation (the details of which will not concern us here):

(24) (H&Mc 1984:493ff, for all of the examples below)

mé I/me	mé féin myself
tú you	tú féin yourself
sé he	sé féin himself (nominative)
sinn we	sinn féin ourselves
iad them	iad féin themselves

II. demonstrative particles

(25) a.	é him/it	é seo	<i>this</i>
		é sin	<i>that</i>
		é siúd	<i>yonder one</i>
b.	iad them	iad seo	<i>these</i>
		iad sin	<i>those</i>
		iad siúd	<i>yonder ones</i>

III. Suffixes deriving contrastively-stressed forms; they vary in form by person and number:

(26)	S1	-sa/-se	P1	-na/-ne (-inne)
	S2	-sa/-se	P2	-sa/-se
	MS3	-san/-sean	P3	-san/-sean
	FS3	-sa/-se		

When attached to pronouns, they result in the following paradigm:

(27)	S1	mé + se	-> mise	
	S2	tú + se	-> tusa	
	MS3	sé + se	-> seisan	(NOM)
	FS3	sí + se	-> sise	(NOM)
	MS3	é + se	-> eisean	(ACC)
	FS3	í + se	-> isa	(ACC)
	P1	sinn + ne	-> sinne	
	P1	muid +inne	-> muidinne	
	P2	sibh + se	-> sibh-se	
	P3	siad + san	-> siad-san	(NOM)
	P3	iad + san	-> iad-san	(ACC)

Significantly, pronouns modified by one of these suffixal particles cannot undergo the rule of pronoun-postposing:

- (28) a. Chuir Nóra é sin ar an mbord.
 put(past) Nóra it DEM on the table
 'Nóra put this on the table'

b. *?Chuir Nóra ar an mbord é sin

Nor may the pronoun postpose on its own, stranding the suffixal element:

- (29) * Chuir Nóra sin ar an mbord é.
 put(PAST) Nóra DEM on the table it

Similarly, in wh-movement constructions, a stranded element in the extraction site is impossible:¹⁴

- (30) * an bhean a chonaic __ -sin mé inné .
 the woman who saw DEM me yesterday
 'the woman who saw me yesterday'

Interestingly, however, in inflected forms, these particles appear in the position following the head, i.e. in the D-structure position of the pro — which, I claim

¹⁴ Note that the status of these cases as evidence is somewhat unclear, since independent pragmatic factors might intervene: neither interrogatives nor relatives would seem entirely natural with binding of a variable of an emphatic, contrastive or demonstrative element. Similarly in cases of topicalisation by clefting, it is clearly ungrammatical to strand one of the demonstrative, contrastive or emphatic elements. Instead, they have to appear on the head NP in the cleft (see next note below about the *seo/sin* in definite NPs).

- (i) a. Is é an fear seo a cheannaigh __ an teach
 cop it the man DEM prt bought thehouse
 'It is this man who bought the house'
- b. * Is é an fear a cheannaigh __ seo an teach
 cop it the man prt bought DEM thehouse
- c. * Is í an bhean a phóg Seán __ sin
 cop her the woman prt kissed Seán DEM
 'It is this woman who Seán kissed'

Even in this case, pragmatic factors might independently exclude stranding of the emphatic suffix; an emphatic element would most naturally be expected to appear on the clefted or topicalised NP itself, as it is the case in (i)a.

here, has undergone movement to specifier position. This is illustrated in the examples below ((31) for inflected tensed verbs, (32) for inflected nouns and (33) for inflected prepositions)

(31) (H&McC: 495)

a. Chuireadar féin an litir sa bhocsa.

put (PAST 3P) REFLEX the letter in-the box

'They themselves put the letter in the box.'

b. Chuireadar seo isteach ar an phost.

put (PAST 3P) DEMON in on the job

'These ones applied for the job.'

c. chuirfinn -se

put (COND 1S) CONTR-S1

'/ would put'

d. mholamar -na

propose (PAST 1P) CONTR- 1P

'WE proposed'

(32) a. a hata-sa

3Sf hat CONTR-3Sf

'HER hat' [H&McC:515]

b. ár saol stoirmeach-inne

1P life stormy CONTR-1P

'OUR stormy life'

- (33) Labhair sé liom -sa nár fhág a' baile ariamh.
 speak (PAST) he with(1S) - CONTR COMP+NEG leave(PAST) home ever
 'He spoke to ME who never left home.' [H&McC:509]

Hale & McCloskey (1984) take these constructions as evidence that there is indeed a non-overt pronoun (*pro*) in the position following the inflected lexical head. Under the position that I am taking here, namely that the agreement on the head reflects a spec/head relation which results from *pro* moving to the specifier position, we must assume that these suffixal particles can be stranded in just these cases (but not in (29)).

Let me summarize the observations from the foregoing data: (i) pronouns bearing a suffixal element cannot be moved to specifier, and (ii) they can be stranded, but only if the head bears agreement with the *pro* they are associated with. The following questions therefore arise: (i) why can these types of pronouns not move to specifier position? (ii) why may they be stranded only in those particular cases? and (iii) why can these elements be stranded at all?

The first question is likely to have a phonetic answer: we have already noted that in general Irish does not license overt specifiers. The very fact that *pro* moves to specifier position was attributed to the fact that it has no phonetic content. Furthermore, in the case of preposition pied-piping discussed in the section above, we noted that there is a restriction on the *wh*-element that may move to Spec/PP, namely that it be monosyllabic (cf. (10)). Let us thus say the following: a simple pronoun is permitted to appear in spec position (if it must, i.e. if it is not properly identified by agreement), but not a 'heavy' pronoun — that is, a pronoun that bears one of the suffixal elements.

To answer the third question next, let me suggest that they are elements of an adverbial nature that can extrapose from the NP they are associated with.

Duffield (1991) presents facts suggesting that these suffixal elements exhibit structural parallels to relative clauses, the details of which I will not go into, as they would lead too far afield (see Duffield 1991: 174ff.).¹⁵ Relative clauses are known to be able to extrapose from their head NP, as is shown in the following example:

(34) The lion_i was captured t_i which had attacked several people in the village.

Let us thus assume that syntactically these suffixal elements are like relative clauses in that they can extrapose from the NP (or DP, to be more accurate). However, phonologically, they are enclitics. And this, I would like to suggest, leads us to the answer to the first question: being clitic-like elements, they need to be attached either to the pronoun itself, or to a head showing agreement with the pronoun they are associated with. This is illustrated in the structure below, representing example (16):

(35) dá [T_P pro_i [T' mbeinn [V_P [B_P t_i -se [B' agus tusa]] ann...]]
 if be(COND 1S) CONTR and you-CONTR there
 'if I and you were there'

¹⁵ These elements also appear following a noun with a definite article:

- | | | | |
|-----|-----------|--------------|--------------|
| (i) | an teach | an teach seo | an teach sin |
| | the house | this house | that house |

[McC&H 1984:496]

H&McC do not consider these constructions to be related to the ones with pronouns, but I see no reason why they should be treated differently.

The data in Duffield 1991 pertain to the fact that both suffixal elements and relative clauses following NPs with a post-nominal possessor NP can be construed with either of the NPs, while in constructions where the possessor appears pre-nominally (i.e. as an agreement marker), suffixal elements as well as relative clauses must be construed with the possessor argument. This extremely interesting observation has to be left open for the time being, since a discussion would lead us into the internal structure of DPs and to the structural position of relative clauses within a DP — too far afield.

Note that the trace t_i is not Case-marked and thus is not visible for contraction/cliticisation processes at PF.

In the ill-formed examples (29) and (30) above (repeated here for convenience), this is not the case.

(29) * Chuir Nóra t_i sin ar an mbord é_i.
 put(PAST) Nóra DEM on the table it

(30) * an bhean a chonaic _ -sin mé inné.
 the woman who saw DEM me yesterday
 'the woman who saw me yesterday'

In neither case does the stranded suffixal particle have an appropriate head onto which it can cliticise, since in neither case does the pronominal element moved to spec position trigger agreement on the finite verb (as accounted for in section 4.1.2.2 for (29) and section 4.3.4 below for (30)).

4.1.3.2. Coordinate NPs revisited. Now let us return to the coordination problem. The fact that the lexical head agrees with the first conjunct in the coordinate NP if it is pronominal prompted us to assume that coordinate structures permit the first conjunct to move to specifier position of the Case-checking head. This, however, conflicted with the ill-formedness of the examples in (20) and (21). The relevant cases that have to be accounted for are listed below:

(36) a. * Chuir Seán [t_i agus leabhar] ar an mbord é sin_i.
 put Seán and a-book on the table it DEM

b. * Chuir Seán [t_i sin agus leabhar] ar an mbord é_j.

(37) a. * an bhean a chonaic sé [t agus Nóra] inné.

the woman who saw he (NOM) and Nóra yesterday

'the woman who he saw [t and Nóra] yesterday'

b. * an bhean a chonaic sé [t -sin agus Nóra] inné.

the woman who saw he (NOM) DEM and Nóra yesterday

We can now account for these in the following way: As already mentioned above, whenever a pronoun is conjoined, it must appear with one of those emphatic, demonstrative or contrastive enclitics. (36)a is ungrammatical because, independently, pronouns bearing one of these suffixal elements may not move to a specifier position; (36)b and (37)b are ungrammatical because *sin* and *-sa*, respectively, have been stranded without having an adequate element to cliticise onto (namely a lexical head agreeing with the pronoun it is associated with); and (37)a, because a pronoun (namely the non-overt relative pronoun) has been conjoined without bearing one of the suffixal elements.

Note, incidentally, that my analysis also accounts for the fact that agreement may only be with the first conjunct, independently of the structure proposed above for coordinate NPs (cf. (19)):

(38) * dá mbeinn tusa agus -se ann.

if be(COND 1S) you CONTR and CONTR there

'if you and I were there'

It has to be the first conjunct in a coordinate NP which agrees with the lexical head, since otherwise the clitic is not linearly adjacent to the head it cliticises onto.

However, recall from chapter 3 that data from Welsh suggest that a true resumptive strategy is forced in relativisation from coordinate structures (since the pronoun may be doubled in the relativisation site, see chapter 3 for details). In a way, then, it might be surprising that Irish should permit movement out of coordinate structures while Welsh does not. On the other hand, it is perfectly possible that Irish coordinate structures are different from those in Welsh in precisely this way, such that these structures take the form of (18) in Welsh, and of (19) in Irish.

Alternatively, we could assume, not that there is a structural difference in coordinate NPs in the two languages, but that coordinate structures are represented as (18) in general (and thus also in Irish), and explain the fact that movement is possible in the attested cases (i.e. those cases where the moved element induces agreement on the governing head) precisely *because* of this stranded element. We might assume that this stranded element licenses the gap in some way so that it does not violate the ECP.¹⁶ The constraint on pronouns in Irish that they may only be conjoined if they bear one of the suffixal elements finds no analogue in Welsh.

However, both theories predict that in Welsh the agreement facts with coordinate subjects would be quite different. Unfortunately I will have to leave

¹⁶ This would assume that movement out of coordinate structures is impossible because of the ECP (as opposed to subjacency). Cf. the distinction that Tellier makes between leaving resumptive traces as spell-outs in order to avoid a violation of the ECP and having them bound by a base-generated operator in Spec/CP in order to avoid a subjacency violation. This distinction assumes that constraints on movement like subjacency and ones on government are disjoint, rather than that subjacency is subsumed under the ECP (cf. Sportiche 1988/90, Rizzi 1990, among others).

this issue open for the moment, since I do not have access to the relevant data.¹⁷

4.1.4. Agreeing and non-agreeing tenses? One fact about Irish that I have disregarded until now is that the agreement paradigm on its finite verbs is not general, as it is in Welsh: in Welsh, a finite verb always agrees with a pronominal subject, while in Irish, it does so only in certain tenses, verbs and person/numbers. The observation that only certain verbs allow agreement suggests a lexically idiosyncratic phenomenon. More might be said, however, about agreeing versus non-agreeing tenses. Tenses that show agreement are the following: conditional, future, present habitual, and past habitual; the tense that generally does not show agreement is past (indicative).¹⁸ In general, the behaviour of past tense is special: in embedded contexts, it appears as the morpheme *-r* on the complementizer; so that the complementizer *go* used in present tense combines with *-r*, resulting in *gur* (i.e., *go + r*). In matrix contexts, we find the clitic *do* preceding the verb (or *d'* before vowel- and /f/-initial verbs). In both environments, the initial consonant of the verb is lenited.¹⁹ The following examples illustrate this process (lenition is represented by 'L-'):

¹⁷ Note, however, that Welsh is different in any case, because pronouns do not move to spec-position at S-structure, but form an A-chain with a pleonastic in their Case-checking position.

¹⁸ Except in Munster dialect, which has the most extensive agreement paradigm.

¹⁹ In many dialects the *do* - marker is generally dropped before consonant-initial verbs, leaving its leniting effect, however, on the initial consonant. I will return to the issue of initial consonant mutation below. See also Duffield 1991 for an extensive discussion of the syntactic factors conditioning consonant mutation.

- 

- ²⁰ With an exception of the substantive verb *bi*: here we find the form *tá* in present tense and *bionn* in the habitual.

The fact that the past and the future morphemes can co-occur on one form suggests that they are generated under distinct functional heads: if they were both generated under T, we would expect them to be mutually exclusive. I suggest, therefore, that future morphology is projected as a MOOD phrase, habitual aspect morphology as an ASPECT phrase, and past morphology as TP. Since present tense morphology receives an aspectually habitual interpretation, the morphology associated with it might be generated under Aspect (i.e., it is aspectual rather than tense morphology). This leaves us with only the past morphemes *do/-r* as overt tense morphology in Irish.²¹ I would therefore like to suggest that in finite clauses, T is projected only when it is [+ past]. We can accomplish this by assuming that T in Irish has two specifications: [+/- finite], where [+ finite] implies (or equals) [+ past], since this is the only tense morphology that Irish contains. What this assumption implies is that T is only projected in infinite clauses and in [+ past]-finite clauses.²²

We can now account for the agreement pattern as follows: ASPECT and MOOD morphology support agreement and therefore exhibit an agreeing paradigm with pronominal subjects, while T in general does not. Furthermore, since the past morphemes '*do/-r*' are clitic-like elements and thus do not constitute part of the verb's morphology, the verb is morphologically complete once it moves to ASPECT or MOOD, respectively. Hence, a licit agreement

²¹ Duffield 1991 proposes that the verb does not raise to T in Irish, and that the projection AgrS is below T. However, the issue of why we do find agreement with future, habitual and conditional but not with past tense is not addressed there.

²² We are thus assuming a binary (or equipollent) view of T: namely +/- finite. In principle, another possibility is that T is monovalent: we might say that the absence of [+ past] implies the absence of the head T. This entails that there is no T-projection in infinitives (see Shaer 1992 on the question whether TP is projected in all languages). However, evidence from Irish infinitives suggests that a TP is in fact projected in [- fin] clauses, providing an A-position for the subject NP (see section 4.2.2.2. below); unless, of course it turns out that this projection is not T but some other inflectional projection which does not — crucially — trigger verb raising (it also may not be AgrP).

configuration for *pro* is established. The marker *do* in matrix clauses cliticises onto the verb and has no effect at all on its agreement pattern: if agreement is present, it has been established under MOOD or ASPECT (e.g. in the case of habitual past forms), and if it bears neither habitual nor mood morphology, then there is simply no agreement. The fact that past tense does not agree seems arbitrary; note, however, that we need to resort in any case to stipulations about whether or not heads support agreement morphology in order to account for the non-uniform behaviour of individual verbs with respect to this aspect.²³

One brief point about nominative Case is at stake here: my analysis implies that both MOOD and ASPECT provide nominative Case-checking specifiers, since we find nominative Case in a clause that has merely either one of the projections ASPECT, MOOD or [+ fin]-T (i.e. [+ past]); (although T does not support agreement morphology and thus does not permit pronouns to be Case-checked at S-structure). This raises the following questions: (i) how can we avoid multiple Case-checking of the NP? and (ii) why can't we find two nominative subjects in those cases where more than one of these phrases is projected? A possible answer to the second question is that the specifiers of each of these categories are in some way 'reserved' for the subject NP. A possible answer to the first question is that if there is more than one potential nominative Case-checking projection, then Case is checked in the highest position to where the verb moves. Thus, if both ASPECT and MOOD are present, then nominative Case will be checked only in ASPECT (it is the higher of the two since its morphology is outside the future morpheme). In this way, the

²³ There is a considerable idiosyncrasy regarding synthetic verb forms, depending on the lexical properties of verbs and the grammatical person/number involved. There are also major dialectal variations involved here. A rough generalization is that in the North (Donegal), we find the smallest number of inflecting verb forms, while in the South (Connacht, Munster), we find a much richer inventory of inflecting forms. The issue is too complex to solve here; I refer the reader to the description of dialectal variation in O Siadhail 1989:179ff.

projections MOOD and ASPECT and [+ fin]-T participate in one Case-checking process, and at LF the subject raises to the highest projection (i.e. Spec/TP if present in the derivation). Thus, the projections behave as if they do in fact constitute a 'split Infl'. I will return to this point below in section 4.2.2.3

In the next section, I will present data involving two types of infinitival constructions — one of them unique to Irish — which constitute another case of NP-movement at S-structure.

4.2. Infinitives.

4.2.1. The Progressive Construction. Infinitival sentences in Irish, as in Welsh, are never VSO. This is expected if we assume that the verb does not raise to T in untensed clauses. However, in Irish we find two types of infinitival complements whose behaviour is considerably different. The one whose behaviour is similar to Welsh is the progressive construction: the post-verbal non-pronominal NP is marked with genitive case, while a pronominal object appears as an agreement marker. However, note a crucial difference between the two languages: while in Welsh the agreement marker precedes the verb and follows the progressive particle *yn*, the agreement marker in Irish appears on the progressive marker itself. Compare the example from Welsh given in (41), with that from Irish given in (42)b.

- (41) Mae Wyn yn ei ddarllen (ef)
is Wyn prog 3s read (it)
'Wyn is reading it.'

- (42) a. tá Deirdre ag bualadh Shéamais.
is Deirdre prog beat-VN Seamus-gen.
'Deirdre is beating Séamas.'

b. tá Deirdre á bhualadh.

is Deirdre at-3S beat

'Deirdre is beating him.'

(Stenson 1981: 154)

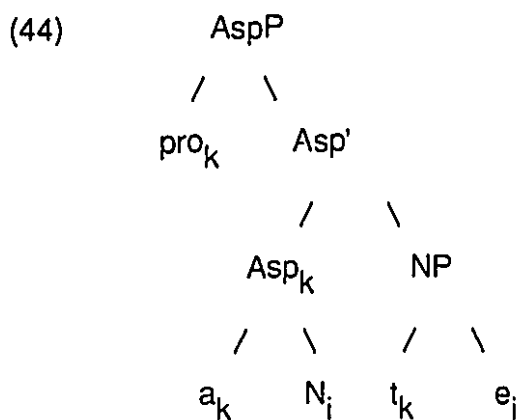
For Welsh, we assumed that the Case-checking head, namely the verb (or the functional Agr-projection associated with the verb) provides a licit Case-agreement specifier for its pronominal complement in infinitives, since it is morphologically complete without having to raise to Tns. Let us say that the progressive marker is the head of a functional projection Asp(ect), and that in Irish AspP provides a Case checking position for the object. Note, however, that progressive aspect must be distinguished from habitual aspect. Habitual aspect combines with verbs, giving a finite verb paradigm where agreement, when it occurs, always identifies the subject NP. Progressive aspect, on the other hand, can only agree with an object pronoun. I suggest that progressive in Irish is a nominal aspect and that the aspectual infinitival is in fact a nominal construction rather than a verbal one.²⁴ This is supported by the fact that a non-pronominal NP following the aspectual head receives genitive Case, and by the fact that the agreement markers are a combination of the aspectual element and the from the same agreement paradigm that we find in NPs with possessive pronouns. This becomes especially clear in first and second person singular, where the aspectual preposition and the pronominal agreement are not merged:²⁵

²⁴ Cf. also Guilfoyle 1990.

²⁵ There is a further complication, which is that, when the complement is pronominal, the progressive marker is preceded by an unstressed preposition *do* (which is however pronounced as though it was *go*) instead of the aspectual preposition *ag*, which is used when the complement is a non-pronominal genitive NP. I will not address this aspect here.

- (43) a. Tá sé do mo bhualadh.
 is he to 1S hitting
 'He is hitting me' (lit.:He is to my hitting')
- b. mo dhoras
 1S door
 'my door'

The tree below illustrates the S-structure configuration of (42)b:²⁶



As Siadhail (1989:277) points out, there seems to be a 'continual drift in the dialects away from the use of a possessive pronoun [i.e. of an agreement marker on the aspectual preposition] and towards the use of a pronoun'. This goes hand in hand with the appearance of the leniting particle *a* (which is

²⁶ See Travis (1991), who proposes that AspP provides a Case position for object NPs. However, she assumes that this holds for "inner" aspect — the AspP within the double-layered VP projection, containing the external argument above the AspP. Progressive aspect, however, is associated with "outer" aspect — that is, an AspP situated outside of the highest VP-projection. In the light of the proposal to be made in chapter 5, I will also assume that progressive aspect constitutes an Asp-projection outside of the double layer VP-projection.

discussed in the following section) preceding the verbal-noun. An example of this is given in (45)b:

- (45) a. Bhí mé ag fanacht le do bhualadh.
 was I at waiting with your hit(INFIN)
 b. Bhí mé ag fanacht le thú a bhualadh.
 was I at waiting with you PCT hit(INFIN)

'I was waiting to hit you.'

[O Siadhail 1989:277]

We might say that the aspectual preposition may also take a VP complement, in which case the construction is verbal rather than nominal. In these cases I assume the construction to be structurally identical to the types of infinitives discussed in the next section.²⁷

4.2.2.1. Word Order in Infinitives and the Verbal Particle *a*.

Irish contains, in addition to the progressive construction, non-progressive infinitives that behave rather differently, in that they do not agree with pronominal NPs. In fact, they do not exhibit any pronominal/non-pronominal asymmetry: both types of NPs appear to left of the verb. Thus, instead of the expected SVO(XP) word order, we find SOV(XP) word order; this correlates with the appearance of the preverbal particle *a* directly before the verb, which causes lenition on the initial consonant of the transitive verb. An example of this word order is given below (based on an example from McCloskey & Sells

²⁷ This construction seems to also be employed in cases of relativisation (see section 4.4.3. for the *ag* → *aL* rule).

1988): (46)a shows an intransitive infinitival structure, and (46)b a transitive structure, with the object to the left of the infinitival verb and the PP to its right.

- (46) a. B'éadoiche [_S iad cruinniú].
would-be-improbable them assemble(infin.)
'It would be improbable that they would assemble.'
- b. Char mhiste liomsa [Hannah s'againne greim a fháil ar Oisín]
I-wouldn't-mind Hannah our a-hold get(infin.) on Oisín
'I wouldn't mind our Hannah getting a hold of Oisín.'

Again, a Case-theoretic account may be given for the attested pattern: the object moves to some position to receive Case. This conjecture is supported by the observation that while the object appears before the verb, all other arguments in the VP — such as PPs, adverbial phrases and other non-Case-marked categories — appear after it. To illustrate this observation further, consider a verb like *weigh*, which is ambiguous between stative and agentive readings. When this verb appears in an infinitive, with the preverbal particle *a* and the direct object preposed, we find a contrast with the finite form, as (47) and (48)b show: namely, that the stative reading is lost when the object preposes in an infinitive.

- (47) a. Meánn Seán an caora.
weighs S. the sheep
'Sean weighs the sheep.'
- b. Meánn Seán 75 kilos.
'Sean weighs 75 kilos.'

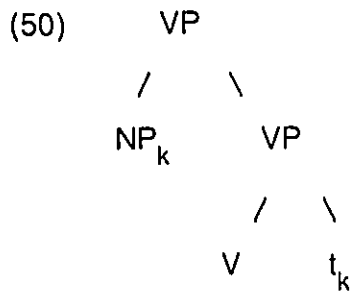
- (48) a. Ba mhaith liom [Seán an caora a mheá]
 I-would-like Sean the sheep to weigh
 b. * Ba mhaith liom [Seán 75 kilo a mheá]
 I-would-like Sean 75 kilos to weigh

This follows if we assume that only referential NPs are Case-receiving elements. Rizzi (1990), among others, has proposed that a fundamental distinction exists between referential and non-referential theta roles: while referential theta roles refer to "participants in an event", non-referential ones such as "manner, measure, atmospheric role, idiosyncratic role in idioms, etc." do not (Rizzi 1990: 86; see also Cinque 1990). Using this distinction, we might say that only those elements receiving referential theta roles receive Case.²⁸ This is supported by the observation that these elements generally cannot passivize — i.e., move to a Case-position — in English:

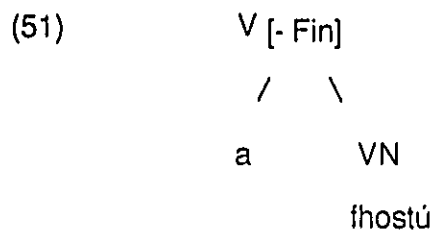
- (49) a. * The week was lasted by the festival.
 b. * 20 kilos was weighed by the boy (under the stative reading)
 c. * Cats and dogs were rained last night.
 d. * 20 feet was measures by the fabric.

A Case-driven account for the infinitive construction has previously been suggested in McCloskey 1980a, Chung & McCloskey 1987, and Sells 1984. Each of these analyses assumes that the object NP left-adjoins to the VP, producing a structure like (50):

²⁸ See also Duffield 1991 for similar discussion (but see Shaer to appear for a critical discussion of the notion of referentiality in syntax). Also, see chapter 5 on the relationship between Case and stative verbs.



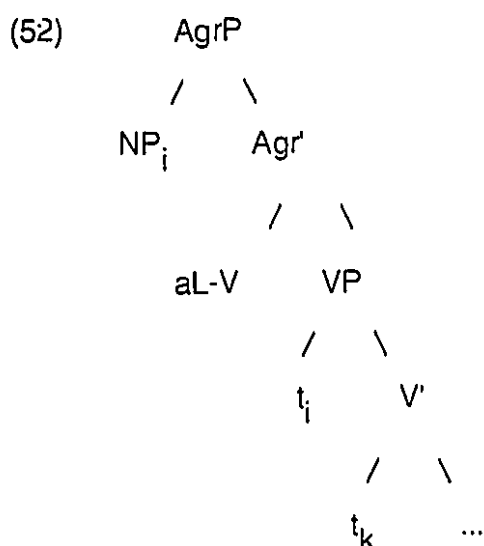
McCloskey proposes that the function of the particle *a* is to construct an infinitive verb from the verbal noun; thus, a non-finite verb like *a fhostu* 'hire' has the following internal structure (McCloskey & Chung 1987: 231):



Sells ascribes to the particle *a* the function of Case assigner; he argues that *a* assigns Case to the left. For that reason the object has to move and adjoin to the VP (see Sells 1984).

These assumptions are problematic for syntactic theory in various ways. The most important problem is that the kind of movement operation that the object NP is assumed to undergo — namely adjunction — is A'-movement, even though movement of the NP for Case considerations is usually assumed to be A-movement into an A-specifier. While Case-licensing, according to this thesis, may in principle occur in A'-positions, these are, crucially, always specifier positions; it seems that movement to a Case position must be movement by substitution and not adjunction.

The framework of Case-licensing assumed here provides a better account of this movement: this is that object NPs raise to a specifier position to be Case-checked. This specifier position is a functional projection — let us say AgrP for present purposes. I propose to analyse the leniting particle *a* as the reflex of this spec/head configuration; we may view it as an agreement marker, but an impoverished one, since it is invariable. Again, since the verb in infinitives does not raise to T in order to be morphologically complete, a licit agreement configuration is available for the direct object at S-structure. This configuration is illustrated in (52):



Note, that AgrP seems to constitute an exception to the claim that Irish does not license over specifiers. This aspect will be addressed in section 4.2.2.3.

4.2.2.2. Munster Irish vs Northern Dialects. In Munster Irish (henceforth MI), spoken in the south and southwest of Ireland, the word order facts in infinitives are somewhat different. In contrast to Northern and Western dialects, where we find both the subject and the object NP preceding the verb,

here only one overt NP may do so. If a sentence contains both a lexical subject and an object, the word order is SVO, and the object receives genitive Case.²⁹ However, if the subject is an element that does not require Case, such as an NP-trace or PRO, then the object precedes the verb. Another important difference is that, while in Northern and Western Irish the leniting particle *a* appears only with transitive verbs, in MI *a* appears before all verbs.

- (53) a. Ní theastaíonn uaim [PRO é a dhíol].
 NEG wants from-me it prt. sell-INF
 'I don't want to sell it.'
- b. Níor mhaith liom [é a fhanacht anseo].
 I-wouldn't-like him stay-INF here
 'I wouldn't like him to stay here.'
- c. Ní thaithneann leat [me a thabhairt namhaid uirthi]
 NEG pleases with-you me give-INF enemy on-her
 'It does not please you for me to call her an enemy.'

(McCloskey & Sells 1988)

It seems that one and only one pre-verbal Case is assigned in infinitive constructions, and that this may be taken either by the subject or by the object. If it is required by the subject, then the subject has priority over the object; if not, then the object may take it. We must conclude, therefore, that there is a Case-checking projection available for the subject or the object.

²⁹ In fact, many speakers do not accept these either so that many speakers tend to employ a finite clause as the embedded sentence whenever both subject and object are lexical.

The foregoing discussion can be summarized as follows: in northern dialects the particle *a* is a Case particle associated with direct objects, since it appears only with transitive verbs. However, note that there are three exceptional instances in which intransitive verbs appear with *a*: *a bheith* ('be'), *a dhul* ('go'), and *a theacht* ('come'). Interestingly, these are unaccusative verbs, where the surface subject originates in the internal argument position at D-structure (see Burzio 1986, among others). We must thus revise the previous statement, and state that *a* in Northern dialects is associated with the internal argument.³⁰ This observation is interesting, since the Case-licensing marker *a* seems to "bypass" Burzio's generalisation, which states that a verb assigns accusative Case if and only if it assigns an external theta role (Burzio 1986: 185). Assuming that Burzio's generalisation is correct, we must conclude that *a* does not coincide with the notion of accusativity or transitivity, but constitutes an independent Case-licensing mechanism available for all internal arguments.³¹ I

³⁰ These three verbs are, of course, not an exhaustive list of unaccusative verbs in Irish. However, unaccusative verbs in Irish are frequently not verbs whose internal argument raises to subject position, but rather ones in which this argument appears in a PP. Examples of such verbs are given below (from McCloskey 1984: 472ff):

- (i) *Mhéadaigh ar an stoirm*
increased on the storm
'The storm increased.'
- (ii) *Dhubhaigh aige*
blackened at-3s
'He became depressed.'

³¹ It is interesting to note that all internal arguments seem to pattern together, and external argument are different. Note that in an ergative language, the subject of an intransitive verb and the object of a transitive pattern together with respect to Case (they are marked absolutive), while in an accusative language the subjects of unergatives, transitives, and the objects of unaccusatives pattern together: they all receive nominative Case. Irish infinitivals seems to behave in between the two types: external argument go together and internal ones, regardless whether they are internal ones of accusative or unaccusative verbs. Interestingly, there is another construction where in Irish internal arguments of both accusative and unaccusative verbs pattern together: this is in the perfective construction (which is formally like the English passive construction in that the internal argument raises to subject position and the external argument appears in a PP; see chapter 5 for more on perfectives in Irish): while in Germanic languages that permit impersonal passives, the ability to form a passive seems to be parasitic upon the existence of an external argument role (cf. Jaeggli 1986, Baker, Johnsen & Roberts 1990), in Irish the opposite is the case: only verbs with an internal argument may form the perfective passive. Thus, unergative verbs like *dance*, *laugh*, *run* etc are ill-formed in the perfective passive:

will thus take these exceptional unaccusative verbs as justification for revising our earlier conjecture that the particle *a* is an indicator of transitivity, and suggesting instead that it is really a subject Case (I will return presently to the question how the subject is Case-licensed in SOaV structures). In this way, movement to pre-verbal position in Irish infinitivals is comparable to a passive operation.^{32,33}

-
- | | |
|------------------------|------------------|
| (i) Gháir mé | |
| laughed I | 'I laughed' |
|
*Tá gáirthe agam | |
| is laughed at-me | 'I have laughed' |
|
*Tá mé gáirthe. | |
| is I laughed | 'I have laughed' |
|
(ii) tá mé tagtha. | |
| is I arrived | 'I have arrived' |

Thanks to Jim McCloskey for pointing this out to me. For the moment I have no explanation for this observation and I will leave it for further research.

³² This implies that infinitives with a lexical subject and a preposed object are structures with two subjects (in some sense). Evidence from infinitival stative constructions seems to confirm this idea. See McCloskey & Sells 1988 and Noonan 1992b for a discussion of these structures.

³³ Duffield (1991: chap. 4) proposes that *a* heads the projection AgrOP (although he does not, strictly speaking, see the particle as an agreement reflex signalling a specifier/head relationship with an NP). He compares the *a* particle to *of*-insertion in English NPs, seeing them both as a kind of last resort Case marking. Under his assumptions, the Irish verbal noun is syntactically an N — thus accounting for the fact that NPs that remain post-'verbal' are marked with genitive Case. This approach has the desirable result of making the ability of *a* to license objects of transitive verbs (which, for Duffield, are nouns), internal arguments of unaccusative ones (in Northern dialects), and external arguments (in MI) seem less bizarre, since we find the same pattern with NP in an *of*-phrase:

- (i)
 - a. the laughter of Mary....
 - b. the destruction of the city....
 - c. the arrival of the guests...

Note, however, that the same point can be made for English INFL, which can Case-license external arguments (ii)a, internal arguments of unaccusative verbs (ii)b, and internal arguments of transitive verbs (in passive constructions)(ii)c:

- (ii)
 - a. Mary danced.
 - b. Mary arrived.
 - c. Mary was seen.

Since, in the framework adopted here, the projections under which structural Case is checked are never theta positions, this result is not surprising. In the light of the analogy to be drawn between the leniting particle *a* in infinitives and the one in relative clauses — anticipating the discussion a little — I prefer to view the *a* as an agreement marker established under an inflectional category associated with verbs, rather than comparing it to an *of*-insertion mechanism in NPs.

With Munster and Connacht Irish, it seems clear that *a* appears not only with preposed internal arguments, but also with lexical external arguments. This clearly indicates that it is a realisation of a Case associated with the subject NP. However, in those instances where the subject is an element that does not need to be Case-licensed, such as PRO or an NP-trace,³⁴ the Case-position becomes available for the object NP. (This point, incidentally, provides independent evidence for the VP-internal subject hypothesis, since it shows that the position where subjects are Case-checked cannot be identical to that where they are base-generated; if that were the case, we would not be able to raise the object NP to that position in those instances where the subject is a PRO, as this movement would result in a violation of the Theta-Criterion.)

Returning to the Northern Irish dialects that allows two overt NPs in pre-verbal position, it was proposed that here the object NP moves to Spec/AgrOP to be Case-checked. Nothing was said, however, about the subject NP. We know that this NP is accusative, because if it is a pronoun the accusative form is used. Irish is known to have a — poorly understood — rule of default accusative

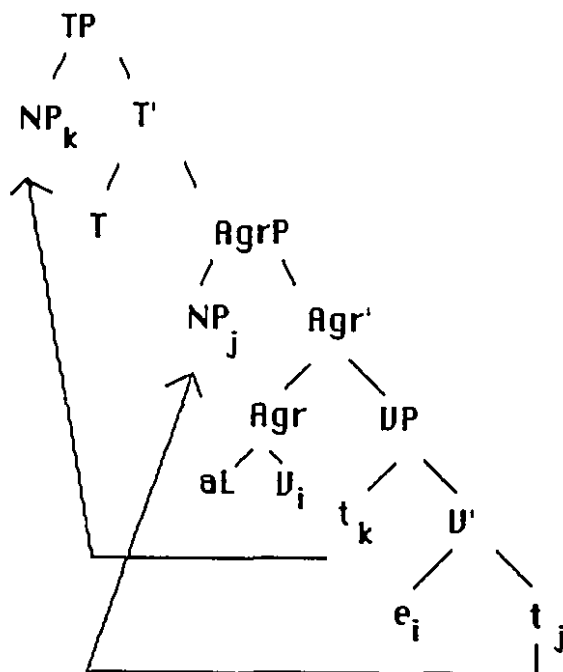
³⁴ Example of an NP trace would be the following (taken from Stowell 1989: 317)

(i) Is féidir le Ciarán [teach a cheannach]
 COP able with C. a house to buy
 'Ciarán can buy a house'

Incidentally, these constructions have raised some controversy, as it can be shown that they are raising structures, while at the same time the raised NP appears as the object of a preposition. McCloskey (1984) analyses them as raising to prepositional object position. Since this analysis faces serious problems for the Theta Criterion, Stowell 1989 argues that they should rather be treated as an instance of raising to subject position of an inherently Case marked subjects. Note, that under this new Case theory, objects always raise to their Case position. This implies, that in ECM constructions, the embedded subject does in fact raise to 'object position' (see Sportiche 1990 for evidence from binding facts for this assumption). However, since the Case position (Spec/AgrOP, or whatever functional category one assumes to Case-check the object) is not a theta position, the original objection to raising to object has ceased to be. Assuming that prepositions are also associated with a functional category in which they Case-check their complements (see Rouveret 1991, for assuming that inflected prepositions appear with a functional category, however under a different set of assumptions than those adopted here), constructions such as (i) can be analysed as raising to prepositional object without posing a problem for the Theta Criterion.

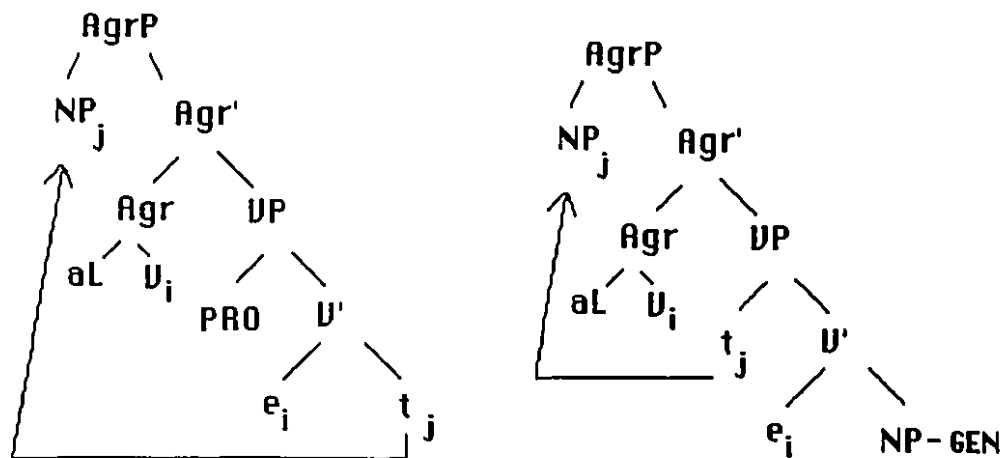
Case. It is clear, though, that this rule is not completely unrestricted, and is available for the subject of predicative small clause constructions (PP, Progressive Phrases, etc.), and for the subject of infinitival constructions, even when it is not governed by an ECM verb (see Chung & McCloskey 1987). I will avoid taking up the issues of the structural position of small clause subjects and the workings of default Case. With respect to Irish infinitives, however, we might assume that a default Case-marked NP can appear in the specifier of a [- Fin] T. We can now account for the difference between Northern Irish dialects and Munster/Connacht dialects by assigning different structures to them. In particular, let us say that infinitives are TPs in Northern Irish (see (54)) and AgrPs in the Munster/Connacht dialects (see (55)):

(54) NORTHERN AND WESTERN DIALECTS:



(55) a. OBJECT MOVES

b. SUBJECT MOVES



(55)a illustrates a clause with a PRO subject, in which the object NP moves to Spec/AgrP. (55)b illustrates a clause with an overt subject, in which the object NP remains internal to the VP and is marked with genitive Case by the verbal.

In Northern dialects, on the other hand, a TP is always projected, but the verb does not move into T in infinitives;³⁵ in this instance, the external argument moves into its specifier in order to be licensed by default Case, and if there is an internal argument, it moves to Spec/AgrP and the verb moves to Agr. The reflex of this Case configuration is the leniting particle *a*.

Crucially, for these dialects we have to exclude the possibility of the subject moving to Spec/AgrP, given that *a* may never appear with subjects. We might say that Spec/AgrP in these dialects is reserved for the object NP, or is only projected in transitive structures. However, the fact that unaccusative verbs appear with the *a* casts some doubt on this assumption, since we do not want to

³⁵ On the absence of verb movement to T in infinitives, see amongst others Emonds 1984, Pollock 1989, and Chomsky 1988 for French; and Sproat 1985 for Welsh.

say that the Agr-projection is intimately tied to accusativity.³⁶ I will explore a better possible account in the section below.

But before, I would like to independently justify the assumption that the default accusative Case-marked subject NP is in Spec/TP by presenting a compelling argument of Duffield's (1991:83ff), who comes to the same conclusion, pertaining to extraction out of negated infinitival clauses. The relevant data, given in the paradigm below, show that extraction of a subject is possible out of a negated infinitive, but not out of a negated small clause.

- (56) a. fear [a b'annamh [t_i ag gearán]]
 a man pct was rare PROG complain-VN
- b. * fear [a b'annamh [gan [t_i ag gearán]]
 a man pct was rare NEG PROG complain-VN
- c. na daoine a b'fhearr leat [gan t_i an teach a cheannach]
 the people pct you-would NEG the house pct buy
 'the people you would prefer not to buy the house'

In a nutshell, Duffield's argument, in terms of relativised minimality, goes as follows: the NEG-marker *gan* is an A'-specifier of NegP, and NegP is situated below TP. Extracting a subject is not a problem, since Spec/TP, being an A'-specifier, presents the subject with an escape hatch: it A-moves across the NegP specifier, and then continues by A'-movement. In the case of small clauses however, this option for the subject is not given, there being no TP.

³⁶ See chapter 5 on the phenomenon of accusativity.

Instead, the subject is therefore forced to A'-move across NegP, skipping its A'-specifier with *gan*, and thus violating relativised minimality.

However, as opposed to what is assumed here, he assumes the subject to be base-generated in that position, for the sake of consistency with a conservative version of relativized minimality — thereby not having to claim that the subject NP A-moves across the object under the Agr-phrase. There is an inconsistency in his argumentation, however, given that he also presents evidence from weak crossover that suggest exactly that: namely, that an object can move to an A-position over a subject (see Duffield 1991: 68ff).^{37, 38} (I shall return to this point in the section on relative clauses.) I will assume — in keeping with a strict interpretation of UTAH (Baker 1988a) — that the subject is base-generated in the normal VP-internal position. Note that the possibility of A-movement of the subject to a Case position over an A-specifier is essential for any theory that assumes both (i) that Case-checking positions for both the subject and object are outside of the maximal VP projection and (ii) that subjects are generated VP-internally. I will return to this matter below.

4.2.2.3. The Earliness Principle. Returning to the problem of having to exclude the possibility of the subject moving to Spec/AgrP instead to Spec/TP in Northern dialects (since we never find the particle *a* with an external

³⁷ Which is, in fact, less constrained than what I have assumed here: though I have, for chain formation in Welsh, permitted the extension of the A-domain across the subject by movement of the theta assigner, it is nevertheless crucial for my analysis of negated object relatives that the object is prevented from A-moving there in the syntax — which, essentially, is what forces the true resumptive strategy in negated object relatives. (See also Baker in preparation for a similar phenomenon in Mohawk.)

³⁸ Note that Duffield's analysis would still not solve the problem of why the subject NP cannot move to Spec/ArgP in Northern dialects. It would, if he assumed that the subject were *always* generated in Spec/TP (since then its base-generated position would always be higher than AgrOP). However, for him subjects are optionally generated under Spec/TP; so there is nothing in principle that excludes the possibility of the subject being base-generated inside the VP and raising to Spec/AgrOP in intransitive sentences in Northern dialects.

argument), let us entertain the following possibility: the external argument is associated with T, and must be in a specifier relation with T at some level of representation.³⁹ We might now invoke the Earliness Principle (Pesetsky 1989), according to which a condition must be satisfied as early in the representation as possible. Let us thus say that a subject NP moves to Spec/TP at S-structure if it can, and otherwise at LF; and that it is prevented from moving to Spec/TP in a tensed clause, but may — and therefore must — move to Spec/TP in an infinitival clause. What might be the reason for the possibility versus impossibility of subject raising? Note that there is a systematic difference between finite and infinitival clauses with respect to verb movement: namely, that the verb raises to T in the former but not the latter. We might now adopt Sportiche's (1992) proposal for deriving the absence of clitic doubling from a generalised '2-filled-COMP-filter', and say that such a '2-filled-COMP-filter' applies to TP in Irish: that is, that an element with phonetic contents cannot be in the specifier and the head of T at the same time. Thus, an NP with phonetic content may raise to Spec/TP only if the verb does not (hence only in infinitives), and cannot do so when the verb is in head of TP. This might, in fact, be an interesting way to account for VSO versus SVO languages in more general terms: in some languages, NPs move to their Case position at S-structure (these would be the ones in which the '2-filled-COMP-filter' does not hold, with respect to the relevant projection); while in others, NPs raise there only at LF. Let us rename the '2-filled-COMP-filter' '2-filled-FP-filter', since it may hold for any functional projections in a given language, but only for functional

³⁹ That is, if a TP is present in the syntactic representation. Note that it is independently necessary to stipulate that T is always tied to the subject, and can never serve as an A-position for the object. This is compatible with the data from both Irish and Welsh, since we only ever find subject agreement on T (just as, for instance, in Welsh we only ever find object agreement on Neg). I will return to the point that the projection which we have been calling AgrP seems to serve as Case-positions for either subject or object.

projections, which follows by definition if lexical head project their arguments in specifiers universally (see chapter 5 on the projection of arguments).

In section 4.1. above I claimed that Irish generally does not license specifiers with phonetic content. From this, the fact was derived that only pronouns move to their Case specifier position at S-structure, since only pronouns may drop when identified by agreement. We can now derive this statement from postulating that in Irish the '2-filled-COMP-filter' holds cross-categorially, and null elements such as *pro* may appear in specifiers because they do not violate the '2-filled-COMP-filter'.

Note, that also the rule of pronoun post-posing, which before constituted an exception to the claim that Irish does not permit phonetically overt specifiers, is compatible with this approach; moving an overt object pronoun to specifier position of the functional projection within a VP layer (as shown in section 4.1.2.2), does not violate the '2-filled-COMP-filter', since the head of the specifier that the pronoun is moved to is phonetically empty — the verb has moved higher up (to Tns).⁴⁰ However, we need to ask why non-pronominal NPs cannot move to that spec position so that we would always find the word order V S XP O? There are two possibilities: (i) the element that moves to specifier position nevertheless has to be a "light" element, thus a pronoun (and one that does not bear one of the suffixal elements as discussed in section 4.1.3.); and (ii) this is not in fact the 'ultimate Case position' of the object NP, and the pronouns moves up not because of Earliness (that is to satisfy the Case Filter as early as possible) but for independent reasons of being attracted to specifier positions. Possibly, the position it has to move to at LF is even higher than TP. This is suggested by analogy with the Welsh data, where it was argued that the

⁴⁰ The only real exception seem now to be the cases where a monosyllabic *wh*-element is moved to Spec/PP in interrogatives (cf. example (10)b, section 4.1.2.1).

Case position for the object NP is higher than Spec/TP.⁴¹ Also conclusions that will be reached further below suggest this possibility. I will leave the issue open here. Let us return to AgrP. How does this fare with the '2-filled-FP-filter'? My proposal implies that the Agr-projection constitutes an exception to the '2-filled-FP-filter' since it permits non-pronominal NPs as well as overt pronouns to raise to its specifier position at S-structure, while at the same time assuming that the verb moves to Agr. In fact, apart from this fact, there are at least two other aspects of the Agr-projection and the agreement marker which have not yet been adequately addressed: (i) the fact that the agreement is invariable, and (ii) the fact that the projection is 'indifferent' as to the grammatical function an NP bears that it Case-licenses (i.e. it licenses either subject or object NP),

I would like to suggest that both the observations that agreement is invariable and that there is no '2-filled-FP-filter' effect with AgrP follows from the fact that the head of AgrP has no overt morphology of its own. In fact, it seems that the sole function of this projection is that of providing a Case-checking projection for an NP argument of the verb, while contributing nothing to the semantic interpretation of the sentence. In this way, it is different from other functional projections such as TP, ASPECT/MOOD phrase, PP, NegP (see chapter 3), IntP (see chapter 2) etc., which all exhibit a certain type of overt morphology that corresponds to semantic information contributing to the interpretation of the sentence. Having no overt morphology, it is not surprising that there is no morphologically transparent agreement (i.e. agreement carrying person/number specification). The only reflex we find is the unstressed particle *a*, which is cliticised onto the verb and sometimes dropped in speech, and the initial consonant lenition on the verb that it induces. I would like to suggest that the

⁴¹ Cf. also Sportiche's 1992 proposal. He assumes there to be an AccP higher than TP, in whose head accusative clitics are base-generated.

absence of '2-filled-FP-filter' effects follows from the same fact. The head of the projection itself has no 'rich' morphology (assuming that the particle *a* is phonetically too light to count as a 'filled head'). Let me suggest that here, incorporation of the verb proceeds in a different way from incorporation of the verb into other inflectional projections. The difference follows precisely from the fact that the verb does not raise to pick up morphology (since there is none), but merely in order to permit its NP argument to be licensed in the specifier of AgrP. Technically, we might invoke a proposal made in Rizzi & Roberts (1989) concerning types of head movement. Specifically, they propose that head movement can be either an instance of substitution or of adjunction. In the former case, it takes place because an affix (their example is INFL) 'morphologically subcategorizes' for the head that incorporates; this makes the movement be an instance of substitution movement. In the latter case, there is no such morphological subcategorisation, and the head simply adjoins to the head. We might now say that the verb incorporates by adjunction to Agr, and in this way does not form part of the head in the same way as if an element incorporates by substitution.

Now let us address point (ii) above, namely the fact that the projection is 'indifferent' as to the grammatical function an NP bears that it Case-licenses. This, I would like to suggest is related to the fact that agreement is invariable. In contrast, projections that establish what we normally understand under the term of agreement (i.e. morphology revealing person/number specification), such as TP (though not in Irish), or ASPECT phrase, MOOD phrase, NegP (in Welsh) etc, are generally reserved for either the NP bearing the grammatical function of subject, or of object, but not both.⁴²

⁴²Actually, the head of IntP in Quebec French (see chapter 2) might be argued to constitute an exception: here the head is the invariable *tu*. But note that it is not semantically void

Recapitulating what has been said about AgrP, I have suggested that the fact that the head of AgrP morphologically void entails

—> (i) that merely an abstract, invariable agreement reflex surfaces under its projection; and

—> (ii) that there is no '2-filled-FP-filter' effect

—> (i), in turn, has as its consequence that the projection permits Case-licensing of either arguments of the verb — the subject or the object NP.

4.2.3. Summary. Let me recapitulate what has been said up to now: (i) we have assumed that by Earliness NPs raise to a Case-specifier as early as possible in the grammar; (ii) Irish does not license overt specifier because some kind of generalised '2-filled-COMP-filter' hold cross-categorially. From these two assumptions it follows that null elements such as *pro* move to a specifier position and that full NPs move to Spec/TP in infinitivals since the head of TP is empty due to a lack of verb raising. Movement of object pronouns is compatible with the '2-filled-COMP-filter', but might take place for independent reason (such that pronouns are attracted to specifiers), rather than constituting an instance of raising to their Case position due to Earliness.

In the following section, I will discuss *wh*-movement constructions in Irish, where we also find a leniting particle *a*. postponing further discussion of the properties of AgrP until later.

particle (and in fact should probably not be analysed as an agreement marker at all), but bears the information INTERROGATIVE (or EXCLAMATORY).

4.3. A-bar Chains and Case.

4.3.1. **The Data.** Irish, like Welsh, has two different relativisation strategies, which differ in the following ways: (i) The direct strategy is used with subjects and objects of tensed verbs, while the indirect strategy is used when the relativized site is within a PP, an NP, or the relativized element is an adjunct or a non-referential NP.⁴³ The indirect strategy also permits relativisation out of islands, such as *wh*-island, complex NPs, coordinate structures, and the like; (ii) the two strategies are associated with different complementizers:⁴⁴ that associated with the direct strategy lenites the initial consonant on the following verb (see (58)a)) while that associated with the indirect strategy induces nasalisation or eclipsis (see (58)b)). (I adopt the notation of McCloskey 1979, 1990, and represent the two different particles as *aL* and *aN*, respectively.)

(57) Deir sé go bhfuil Ailill anseo.⁴⁵

says he that is Ailill here

'He says that Ailill is here.'

⁴³ The direct strategy is obligatory with the subject and optional with the object (although the direct one is much preferred here too). Furthermore, the direct strategy can also be employed optionally in successive cyclic movement from subject or object position, as well as from the object position of progressive VPs and infinitival clauses. In this sense, Irish differs from Welsh, where only the indirect strategy is permitted in these contexts. These issues will be discussed in section 4.4 below.

⁴⁴ Though I will argue below that the particle of the direct strategy is not actually a complementizer.

⁴⁵ To clarify: the substantive verb *bí* in the present tense does not lenite after an (otherwise) leniting particle, and after a nasalising complementizer it appears in its so-called dependent form *bhfuil*. Thus, *bhfuil* corresponds to the nasalised version and *tá* to the lenited version of other verbs. See Duffield 1991 for a detailed account of initial consonant mutation. While we're at it, another obscuring factor is that whenever the indirect complementizer — the one that induces nasalisation — is marked for past tense, we find lenition on the initial consonant of the verb, instead of the expected nasalisation. However, past tense with the direct strategy works differently (see below), so the two types of constructions can still be distinguished. To make exposition easier, I will always indicate *aN* versus *aL* in the gloss, even if *aN* actually lenites by virtue of bearing the feature [Past].

- (58) a. DIRECT: An fear a bhí sásta.
 the man aL was content
 'the man who was content'
- b. INDIRECT: An bord a bhfuil an leabhar air.
 the table aN is the book on-3S
 'the table that the book is on'

(iii) The two strategies display different agreement patterns: the direct strategy never uses the inflecting form of the head that governs the extraction site, while the indirect strategy always displays agreement on that head or else an overt resumptive pronoun⁴⁶ (see the agreement on P in (57)b)). In the case of subject extraction, the verb always carries default agreement. This is demonstrated by the ungrammaticality of (59)b:

- (59) a. D'imreoidís anseo.
 play(3P) here
 'They would play here.'
- b. * Na páistí a d'imreoidís anseo.
 the children aL play-cond.(3p) here
 'The children that would play here.'
- c. Na páistí aL d'imreodh anseo
 the children aL play(3s) here
 'The children who would play here.'

⁴⁶ This is in the case of direct objects of tensed verbs .

The difference between the two strategies has been analysed as a difference between movement and non-movement strategies (see McCloskey 1979, 1983, 1990; Shlonsky 1991; I will present aspects of their analysis as I proceed with the discussion). In chapter 3, it was argued that the indirect strategy in Welsh need not be a resumptive strategy, but can be derived by movement. For reasons of convenience, I repeat the crucial data and argumentation here. The strongest motivation for an analysis in terms of movement rather than a resumptive strategy is the asymmetry in the indirect strategy between relativisation out of a real island (e.g. a CNP) and relativisation out of a PP, CP, etc.: in the former, the pronoun is optionally doubled with the agreement on the governing head. This pattern is exactly the same as that in non-relativised environments in Welsh, where the pronoun can double:

- (60) a. mae Wyn yn son amdano (ef)
 is W. PROG speak about-3Sm him
 ‘Wyn is speaking about him.’
- b. gwelsant (hwy) y ci.
 saw-3P (they) the dog
 ‘They saw the dog.’

This contrasts with relativisation out of a simple PP, where doubling of the pronoun is ungrammatical:

- (61) a. y dyn y soniais amdano (*ef).
 the man COMP spoke-1S about-3Sm (*him)
 ‘the man that I spoke about’

b. y dyn y soniais [amdano ef ac Ann].

the man COMP spoke-1S about-3Sm him and Ann

'the man that I spoke about him and Ann' (de Freitas & Noonan 1991)

This asymmetry is explained by the assumption that in (61)a there is actual movement of the NP. Given that agreement occurs when a head is in a specifier/head configuration at S-structure, the agreement on the preposition does not necessarily signify the presence of a (resumptive) *pro*, but could be the result of an NP moving through specifier position, hence a trace in Spec-position (cf. Sportiche 1990 for French participle object agreement). The same contrast between the two environments of relativisation cannot be illustrated in Irish, since Irish always prohibits the surfacing of the pronoun if there is agreement on the governing head, even in non-relativised contexts. This fact obscures whether the element that triggers agreement on the head is a resumptive pronoun (*pro*) or a trace in the specifier of the category from which relativisation has taken place, since both trigger agreement. Like Welsh, Irish does not in general license parasitic gaps (see McCloskey 1990); so this test cannot be applied to establish whether or not there is an A'-chain at S-structure.⁴⁷ However, I will assume, on the basis of the analogy with Welsh — which shows such clear evidence for a movement analysis — that Irish indirect relatives are also derived by A'-movement. In cases where relativisation is out of an island (*wh*-island, CNPC, coordinate structure etc.), a true resumptive strategy applies. Since the pronoun in Irish drops obligatorily, the indirect movement and indirect resumptive strategies look identical on the surface.

⁴⁷ In fact, see McCloskey 1990 for evidence that an A'-relation is established at S-structure. For him this does not imply that there is A'-movement at S-structure, since he argues that resumptive pronouns enter an A'-binding relation at S-structure.

Thus, I assume that in (62)a trace occupies Spec/P, consonant with the representation in (63)a; and that in (62)b, where relativisation is out of a *wh*-island, a resumptive *pro* occupies Spec/P, consonant with the representation in (63)b):

- (62) a. An fear ar labhair tú leis.
 the man aN spoke you with-3sm
 'the man that you spoke with'
- b. An fear nach bhfuil fhios agam ar labhair éinne leis.
 the man C-NEG is knowledge at-1S if spoke anyone with-3Sm
 'the man that I don't know if anyone would speak with him'
- (63) a. an fear_i [Op_i ar [labhair tú [PP t_i [P, leis t_i]]]]
 b. an fear_i [Op_i... [CP ar [IP... [PP **pro**_i [P, leis t_i]]]]

My analysis of the two patterns is one in terms of Case-checking: an element must move through its Case position — that is, through the specifier of its Case checking head —, thus inducing agreement on that head. This follows from the Licensing Condition on Chains (see chapter 3), which states that chains must be Case-checked at S-structure. As for the direct strategy, my claim is that the relative marker *aL* is, in fact, a reflex of a Case agreement configuration, and derives from the Case-checking of the operator in its S-structure position.⁴⁸ This is, again, an instance of invariable agreement, which does not display person/number distinctions.

⁴⁸ See Sells 1984, which also ties the *aL* marker to Case, although under assumptions different from my own. Sells assumes that *aL* assigns Case and the feature [+WH] to a PRO that

Before laying out the patterns of the two strategies in greater detail, I will present some data that strongly support a Case-theoretic treatment of the direct strategy in Irish also.

4.3.2. *aL* and Case. The movement/resumptive hypothesis closely associates the direct strategy complementizer with a gap in the extraction site, and the indirect strategy complementizer *aN* with a resumptive element in the extraction site (McCloskey 1990). However, the data to be presented below show (i) that there are several cases where the indirect strategy complementizer co-occurs with a gap in the extraction site, and (ii) that there are instances of *wh*-movement which are not from an NP, PP, embedded clauses, or island, but where only the indirect strategy is available. These data support the claim that *aL* correlates with a category that receives Case from the T + V complex, and that non-Case-receiving categories, as well as NPs not Case-checked by the finite verb, occur with the complementizer *aN*.

In question formation, Irish allows pied piping of the PP:

- (64) a. Céard a bhfuil an leabhar air.
 what *aN* is the book on-3S
 ‘What is the book on?’
 b. Céard air a bhfuil an leabhar?
 what on-3S *aN* is the book
 ‘What is the book on?’

A-moves to the left of S' (in fact, adjoins to S'). Presenting his proposal in detail would lead us too far afield, particularly since most of his assumptions are no longer compatible with those of current theory. We might simply note, however, that the present analysis shares with his the intuition that *aL* is associated with Case.

- (65) a. Cé a bhfuil an carr aige?
 who aN is the car at-3Sm.
 'Who has the car?'
- b. Cé aige a bhfuil an carr?
 who at-3Sm aN is the car
 'Who has the car?'

The movement/resumptive hypothesis correctly predicts that *aN* will surface in the Case of preposition stranding, since agreement on the preposition, under this hypothesis, signals the presence of an resumptive pronoun. However, it also predicts that the complementizer *aL* will surface in pied-piping contexts, since there is a gap in the extraction site. But here we find the indirect complementizer *aN* instead (see (64)b and (65)b).

Other instances of a gap with the indirect strategy complementizer *aN* are the following ones (taken from Duffield 1991):

- (66) a. An áit a bhfuil tú (ann)
 the place aN be you (there)
 'the place where you are'
- b. Sin é an t-am a raibh Cian anseo.
 that it the time aN was Cian here
 'That is the time at which C. was here.'
- c. an fáth a bpógann sí é
 the reason aN kiss she him
 'the reason she kisses him'

The heads of the relatives under (66) — which are not referential NPs but adjuncts — do not receive Case. A Case-driven account therefore correctly predicts the appearance of the complementizer *aN* rather than *aL*. Likewise in the (b) examples of (64) and (65), where the fronted PP is not an element that receives Case, and the complementizer *aN* appears.

Finally, consider once more the two readings of the verb 'weigh':

- (67) a. Meánn Cian 75 kilos.
 weighs Cian 75 kilos
 'Cian weighs 75 kilos.'
- b. Meánn Cian an caora.
 weighs Cian the sheep
 'Cian weighs the sheep.'

Forming a question from (67) using the complementizer *aL* disambiguates the reading of 'weigh'. Thus, (68) can have only the agentive reading of 'weigh':

- (68) Céard a mheá Cian?
 what aL weigh Cian

This is predicted by the hypothesis that links *aL* with a Case configuration, since only the object of the agentive verb 'weigh' is a Case-receiving category (see (48) in section 4.2.2.1).⁴⁹

⁴⁹ It is also impossible to form the question with the *aN* complementizer. Thus, (i) is not an appropriate way to ask for Sean's weight:

(i) * Céard aN meá Seán?
 what aN weigh S.

4.3.3. The Indirect Strategy. Consider extraction out of a PP as an illustration of the indirect pattern. The object of the preposition must move out of the PP through its Case-checking position, the specifier of PP. Again, this results from the following S-structure licensing condition on chains:

(69) Chains with more than one member must be Case checked at S-structure.

(69) says essentially that if an NP undergoes movement at S-structure, it must establish the relevant Case configuration at S-structure, independent of the general setting of the Case-parameter— i.e. whether Case configurations are normally established at S-structure or LF.

Thus, movement of an NP out of a PP must proceed through its specifier, and the resulting trace in Spec/PP triggers agreement on the preposition. The relativised NP moves to Spec/CP. I will follow McCloskey 1990 in assuming that *aN* is an agreeing complementizer that appears whenever there is an operator in Spec/CP.^{50, 51}

Possibly, the *wh*-word *céard* can be used only as a referential NP. This would be analogous to the use of *que* in French, and the resulting ill-formedness of (ii):

- (ii) * Qu'est-ce que Jean pese?
- (iii) Combien est-ce qu'il pese?

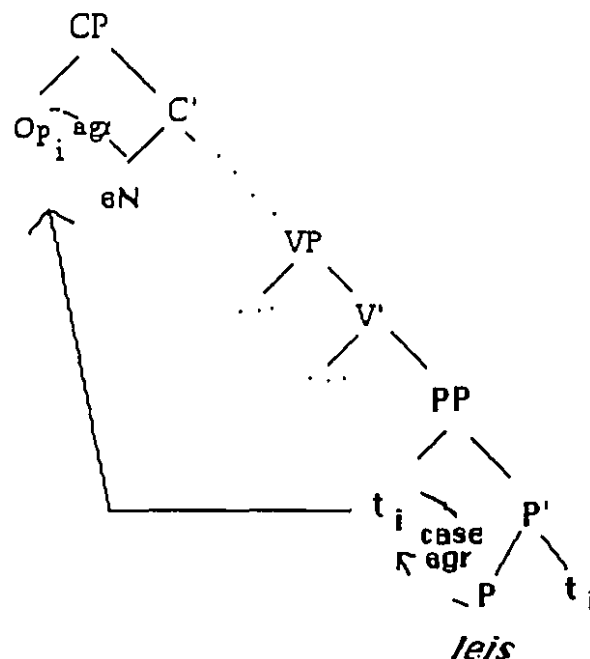
⁵⁰ McCloskey posits the features {+p,+a} for *aN*, which he takes to be the complementizer that agrees with an operator binding a pronominal, and [- p,- a] for *aL*, which he takes to be the complementizer that agrees with an operator binding a variable. I will argue below, however, that *aL* is not a complementizer; it is thus sufficient for my purposes to state that *aN* is the complementizer that surfaces whenever Spec/CP contains an operator. Thus, even though *aN* and *aL* are in complementary distribution, I do not assume them to occupy the same position. I assume the complementarity of the two particles to derive from PF constraints on permitting only one preverbal particle.

⁵¹ There is some dialectal variation with respect to the indirect strategy. Thus, some speakers accept the indirect pattern with the complementizer *go*, which is the ordinary subordinating complementizer. This looks very similar to the Welsh indirect strategy, where we also find the normal subordinating complementizer *yr* along with the indirect strategy.

- (70) An leon ar imir sí leis.
 the lion aN plays she with-3Sm
 'the lion that she plays with'

The tree structure corresponding to (70) is given below:

(71)



4.3.3.1. An Indirect Strategy in German? We find a nice analogue to the Irish and Welsh facts in German. German, like Dutch, allows preposition stranding with prepositions that appear as post-positions with pronominal complements. This can be easily explained under the present assumptions: only those prepositions that license a specifier (at S-structure) may have their pronominal complement move to specifier position, and permit *wh*-phrases to

move through their specifier position.⁵² However, in German, unlike in Dutch(~~?), a "resumptive-like" element appears on the preposition, without which stranding is ungrammatical.

- (72) a. Leg es auf das Bett — Leg es darauf.
put it on the bed — put it thereon
b. Wo hast du es **drauf** gelegt?
where have you it on put
'What did you put it on?'
c. * Wo hast du es **auf** gelegt?

However, the likelihood that the *d* on the preposition is not a true resumptive element is suggested by the following ungrammatical form:

- (73) * Wo has du es **darauf** gestellt?
where did you put it thereon

I propose that the form *drauf* in (72)b is a preposition bearing agreement which reflects movement of the pronoun through Spec/PP. The Irish (and Welsh) constructions discussed above thus find direct parallels in an unrelated language like German.

4.3.3.2. Deriving the Condition on Chains. Note that the Condition on Chains (69) has up until here been a mere stipulation; it would

⁵² This is equivalent to van Riemsdijk's (1978) analysis in terms of R-positions as an escape hatch, which has been recast under the specifier approach in Koopman & Sportiche 1988, Sportiche 1989.

thus, be desirable to derive it from some independent mechanism. Suppose (69) would not hold in a language like Irish (or Welsh); so that, in such a language, an element that has been *wh*-moved to Spec/CP would have to move back at LF to its Case-checking position in order to pass the Case Filter (i.e., be visible). In principle, nothing prevents this (we need to allow for reconstruction processes at LF, independently). However, assuming that economy plays a role in grammar (Chomsky 1988), a derivation in which an element skips its Case position and moves back down at LF involves more steps than one in which this element picks up Case along the way. Recall that we derived the fact that the subject NP in Northern Irish dialects must raise to Spec/TP (rather than to Spec/Agr) from the Earliness Principle. We can apply exactly the same reasoning here: since a trace, just like a *pro*, is a null element, the '2-filled-FP-Filter' is not violated. That is, *wh*-moved elements can be Case-checked by moving through their Case-position, and therefore must do so.

4.3.4. The Direct Strategy. The analysis that derives the direct strategy exploits the fact that the Case-checking head for both subject and object, namely the finite verb (complex V + T head), undergoes head movement in *wh*-movement contexts; as a result, the highest specifier/head configuration between it and the *wh*-moved element is located higher in the syntactic tree than it would normally (in non-*wh*-moved contexts) be. As I argued for the direct strategy in Welsh, we can derive the direct strategy by assuming that the Case-receiving element and the Case-checking head are in a specifier/head relationship in the S-structure position of the moved NP. By ARC (repeated below for convenience), agreement between the complex Case-checking head and the Case-checkee is established at the highest structural position in which

they are in a specifier/head configuration — that is, under a functional category higher than T.

(74) AGREEMENT REALIZATION CONDITION (ARC):

Agreement is established at the highest licit specifier/head configuration
(= Case is checked under the highest licit specifier/head configuration)

The agreement that we find here is, once again, invariable agreement which surfaces as *aL*, rather than agreement established under TP, which is morphologically transparent (i.e., shows person/number distinctions). In chapter 3, I assumed this projection to be CP. However, in the preceding section, we found another leniting pre-verbal particle *a* in infinitives, which we also analysed as a reflex of a Case-checking configuration at S-structure. In fact, the relative marker *aL* and the infinitival particle *a* share a number of features: (i) both lenite the verb; (ii) both are plausibly reflexes of Case checking at S-structure; and (iii) both provide a Case position that can be filled with either the subject or the object. I thus conclude that the *aL* of the direct relative and the *a* of infinitives are the same element, namely *aL*. This suggests a revision of the claim that *aL* in direct relatives is established under C, as was argued for Welsh. Let us instead assume that they are heads of Agr-phrases.

Duffield 1991 presents independent evidence, from [+Past] direct relatives, that *aL* is not a complementizer. Recall from section 4.1.4 that in embedded contexts the past morpheme appears on the complementizer as a suffix *-r* and causes lenition on the following verb. I give the paradigm below:

- (75) gur: [- WH], [+ Past]
ar: [+ WH], [+ Past]

níor: [+ Neg], [+ Past]

nár: [+ WH], [+ Neg], [+ Past]

In matrix contexts, on the other hand, the past appears as *d(o)* prefixed to the verb, also with initial consonant lenition.

- (76) a. d' fhoghlaim siad matamaitic
past learnt they math
'They learnt mathematics.'

In the indirect strategy, we find the *-r* pattern — as expected, given the assumption, here as elsewhere (e.g., McCloskey 1990), that *aN* is a complementizer:

- (77) Goidé ar ith na cailíni é?
what aN-PAST eat the children it
'What did the children eat?' (Duffield 1991: 52)

In the direct strategy, however, we find not this pattern with *aL*, but rather the *do* pattern:

- (78) Goidé a do ghoid na siogaí?
what aL past steal the fairies
'What did the fairies steal?' (Duffield 1991: 52)

This strongly suggests that *aL* is not a complementizer. Duffield presents this as evidence that *aL* is under T; note, however, that its co-occurrence with *do* makes

this claim unlikely — although this co-occurrence is compatible with the assumption that *aL* heads a projection higher than TP (but lower than CP).

Having established that *aL* heads an AgrP, we might assume that the verb in infinitivals moves to AgrO, and the object NP (or the subject NP in Munster Irish) to Spec/AgrOP.⁵³ ⁵⁴ We might then say that *wh*-movement of subjects and direct objects proceeds to Spec/AgrSP, where they are Case-checked. This implies that Spec/AgrS functions as an A'-position.⁵⁵ What we might conclude, then, is that *aL* appears in Irish whenever the verb is in a licit specifier/head agreement configuration with an NP under an Agr-phrase. Since we saw that both AgrS and AgrO are available as Case-licensing positions for either the subject or the object, we might call them AGR₁P and AGR₂P. Again, we can relate the fact that AGR₁P displays abstract invariable agreement with its ability to Case-license the subject or object. Note that my analysis implies that the agreement we find on tensed verbs is not necessarily established under AgrP, but under TP itself. This suggests that the label "AgrP" is somewhat of a misnomer. We might, therefore, refer to it as FP (that is F₁P and F₂P; but see below); however, for the purposes of exposition, I will leave the label AgrP for the time being. Agreement under TP (and other categories) is then assumed to be established by the mechanism of specifier/head coindexation, independent of the existence of AgrPs.⁵⁶

⁵³ AgrO is then presumably higher than the base-position of the subject, i.e. outside the double layer Larsonian VP, as it is available for the Case licensing of the subject. This is the position that Chomsky 1990 entertains. But cf Sportiche 1990 and Travis 1991 for a different view.

⁵⁴ Note that this implies that AgrPs are the only categories for which the "2-filled-COMP-Filter" does not hold in Irish.

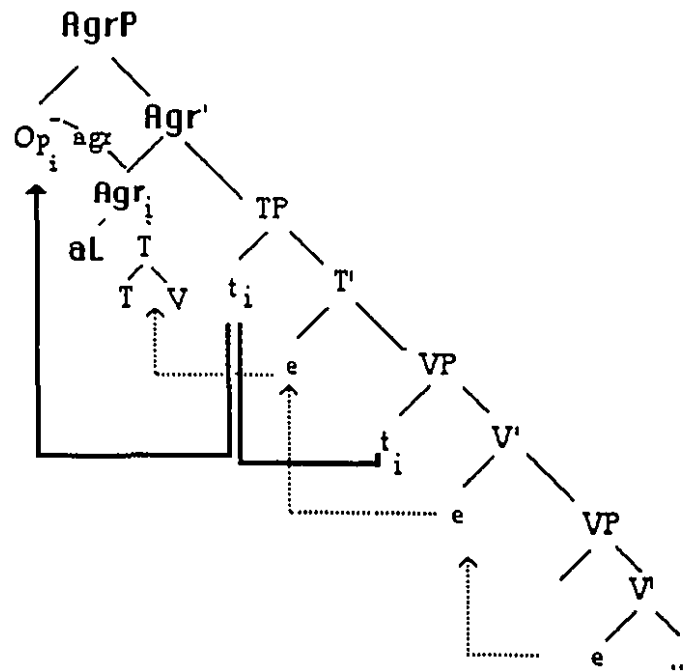
⁵⁵ That Spec/IP may function as an A'-position has been proposed by Diesing (1988) for Yiddish, and Pesetsky (1989) for English; word order in questions suggests the same for Spanish (see the data in Torrego 1984 and Suñer 1986).

⁵⁶ Note that the elaboration of the syntactic tree to include AgrPs is somewhat redundant in any case, given that UG in addition has spec/head agreement. What seems to be important is the fact that there are additional functional projections available, above and below TP (see Pollock 1989 for evidence of the one below TP — the landing site of "short movement" in infinitives).

Let us now to relative clauses, looking first at subject relativisation. Here, the subject NP moves to Spec/Agr₁P and V + T to Agr. As a result, we find the agreement reflex *aL*, as opposed to the morphologically transparent T-type agreement. This is illustrated by the paradigm in (59), repeated here as (79), and the corresponding S-structure tree diagram in (80):

- (79) a. Na páistí a d'imreodh anseo
 the children aL play(3S) here
 'the children who would play here'
- b. * Na páistí a d'imreoidís anseo.
 the children aL play-COND.(3P) here
 'the children that would play here'

(80)⁵⁷



Next consider the direct object. When the relativised argument is the direct object of a finite verb, let us say, again, that the highest specifier/head configuration is under AgrP: the operator has moved to Spec/AgrP from object position and the Case checking head of the object, the verb, has moved to Agr. Thus, again, we find the “Agr-type” agreement Case marker *aL* on the verb:

- (81) a. An leon aL chuartaigh sé.
 the lion aL looked-for he
 ‘the lion he searched’

Note, however, that if it is an A'-position, it is not clear why only subjects and direct objects can move there. Let us suppose that it is an A-position. In that

⁵⁷ Ignoring CP, which would presumably be projected, at least for relative clauses.

case, we would have to assume that, by some notion of "complete functional complex", the A-domain for the object is extended to Spec/Agr₁ through raising of the theta assigner to that position. This is what was argued in chapter 3 for Welsh, where verb movement into Neg was seen to extend the A-domain for the object. However, even though Welsh seemed to allow for an A-chain across the subject by co-indexation, it did not allow for A-chain formation by movement across a subject; the resumptive strategy was therefore the only applicable strategy in Welsh negated object relatives. While the notion of "complete functional complex" does play a role over and above relativised minimality, it seems that syntactic A-movement should be restricted within the domain of the subject. This restriction on A-movement would have to be relaxed in Irish, in order for the direct object to be able to move across the subject by A-movement. However, we would want an independent explanation for why Irish and Welsh would differ in this way.

Another, more compelling, phenomenon to consider is that of successive cyclic movement out of a clause, to be discussed in the following section. In contrast to Welsh, Irish permits the direct strategy for movement out of a complement clause, so that we find an *aL* in each intervening clause (AgrP):

(82) Op_i *aL* V... [t_i *aL* V... [t_j *aL* V... [... t_j...

This clearly forces us to assume that AgrP is an A'-position.⁵⁸ The fact that the position is restricted to subjects and objects, however, motivates a type of

⁵⁸ See Duffield 1991, chap. 3 for arguments that *aL* is a Tense element base-generated under T, signalling an NP in its specifier. For Duffield this is an A-position; however, he does not address the question how this assumption can be reconciled with the long distance movement pattern. In fact, he uses the very existence of patterns like (82) to argue against a clitic climbing analysis of *aL*. However, if we assume that *aL* licenses an A-specifier, it is unclear how we could ever find the pattern in (82). In fact, (82) is even more problematic for his view than for the clitic

position distinct from an A'-position such as Spec/CP; we might coin this a 'Case-bar position', and I will refer to it by CASE-position. At this point, we have already encountered instances in which Case could arguably be checked under an A'-projection, namely, CP (cf. matrix subject interrogatives (chapter 2)). What we can conclude from this section is that UG seems to contain a notion of CASE-position that is — or at least can be — independent of the distinction between A- and A'-positions. Let us define CASE-position as follows: A CASE-position is a position from which A'-binding takes place, and under which Case is checked. Consequently, only elements that are "Case-checkees" of the head of the CASE-position may move to its specifier.

4.3.5. The Highest Subject Restriction. Two facts suppressed until now are (i) that the indirect strategy is unavailable for subject extraction, a restriction termed the HIGHEST SUBJECT RESTRICTION (HSR) by McCloskey (1990); and (ii) that object extraction optionally employs the indirect strategy in Irish (unlike Welsh).⁵⁹

Let us address (i) first. The relevant ill-formed example is given below:

climbing view, since clitic movement has, at least, been analysed as having properties of A'-movement (although, as Duffield observes, it would be unusual for it to leave a spell-out on each intervening verb). The reason for his assumption that it is an A-position is the lack of weak crossover in question like (i); (Duffield 1991: 134).

- (i) Cé_k a chonaic a_k mháthair?
 who a_L saw his mother
 * 'Who_k did his_k mother see/Who_k saw his_k mother?'

However, as he himself states in a footnote, the judgements tend to be unstable and subject to dialectal variation. I also received contradictory reactions from my informants. In the light of this and the obvious problem of successive cyclic movement, for now I will leave the matter as stated in the text.

⁵⁹ Though the direct strategy seems to be definitely the preferred one here too.

- (83) * an fear a raibh sé breoite.
 the man aN be he ill
 'the man that (he) was ill' (McCloskey 1990: (29a))

McCloskey (1990) accounts for the HSR by adapting a proposal of Aoun & Li (1989) (who in turn adapt the proposal from Aoun & Hornstein 1986) in terms of a restriction on pronoun A'-binding:

- (84) A pronoun must be A'-free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun.

This possibility is lost to us here, since we have assumed that there is no resumptive pro in the indirect strategy.

Shlonsky's account

Another proposal concerning the HSR, which is also found in Hebrew and Palestinian Arabic relativisation, is made by Shlonsky (1991), who analyses the phenomenon in terms of the status of the Spec of CP position. Shlonsky assumes that, in those languages where non-subjects necessarily trigger a resumptive strategy when relativised, the complementizer licenses an A-specifier; consequently, only the subject may move there (otherwise a violation of binding principle A would result). He assumes next that the resumptive strategy is a last resort strategy (i.e., A'-move if you can). Under his analysis, the Irish complementizer *aN* is a type of complementizer that licenses a pro in its specifier at D-structure (entering an A'-binding relationship with a resumptive pronoun at LF). By Economy, the resumptive strategy is permitted only if an A'-movement strategy would lead to ill-formedness (i.e., in cases where Spec/CP

is an A-position and the relativised element is a non-subject, or relativisation proceeds from an island). In other words, he assumes that base-generating a *pro* that can bind a resumptive pronoun is more "costly" for the grammar than creating an A'-chain by movement. The crucial examples are those languages where the resumptive strategy is optional for relativisation from direct object position, as is the case in Irish and Hebrew (Palestinian Arabic??). In Hebrew, the difference between the two strategies correlates nicely with two different complementizers: one licensing an A-position and therefore occurring with subject extraction and resumptive strategy of the object; and the other appearing when the object is moved, which we can thus identify as licensing an A'-specifier (see Shlonsky 1991 for details).

However, Shlonsky's analysis is problematic for the following reason: in Irish, we find *aL* (which, for him, is a complementizer) with direct relativisation from subject position, which implies that *aL* licenses an A-specifier under CP. We would thus predict the pattern illustrated in (85), where *aL* co-occurs with the indirect strategy of the object — signifying that an A-specifier is under CP, as a result the object NP cannot move there and resumptive strategy results.

(85) [Op_k *aL* [..t_k .. [...

*[Op_k *aL* [..NP.. [...pro_k..

However, as we see in (86)b, the prediction is not borne out:

(86) a. an fear ar bhuail tú é

the man aN struck you him

'the man that you struck (him) [McCloskey 1990]

b. *an fear a bhuail tú é.

the man aL struck you him

Instead, we find aL with the direct strategy and aN with the indirect strategy for objects. Thus, under his analysis, aL cannot be identified with the complementizer that licences an A-position, since then it would never occur with a gap in object position. Aware of this problem, he proposes the following: the aL complementizer is actually the surface realization of the ordinary complementizer *go* ; it appears, whenever there is something in Spec/CP (an agreeing complementizer — which I and McCloskey identify with aN instead). However, it does not reveal anything about whether Spec/CP is an A'-or A-position. Thus, aL underlyingly can license an A-specifier (the case of direct subject relatives), or an A'-specifier (the direct object relatives), and aN is always the (more costly) strategy of base-generating a pro at D-structure. Note that besides being somewhat unattractive for the reason that two different aLs must be assumed, he additionally needs to stipulate that all remaining instances of aN relativisation cannot be accounted for by the A/A'-specifier distinction: if aL is compatible with an A'-specifier (see the direct strategy for the object), then we would expect it to co-occur with wh-movement from other positions also. Therefore, he must independently stipulate that in these languages nothing can be extracted out of PPs, infinitives, etc.

4.3.5.1. Economy and Case. Let us now consider the HRS and optionality of object relativisation under the Case account. As Shlonsky, I will invoke Economy to be at play. One possibility is the following statement:

(87) A'-bind from the closest A -bar specifier (closest to D-S position).

Since the specifier of the aL projection is an A'-specifier, (however being restricted to subjects and objects of tensed verbs by virtue of also being a Case-position), it is the closest A'-specifier, and thus preferred over movement to Spec/CP by both the object and the subject. However, consider an alternative statement, also based on Economy:

- (88) If an operator can be Case-checked in, and A'-bind from, one and the same position, then it must.

In deriving the HSR in Irish, both (87) and (88) give us the same results. Note, however, that (88), which essentially derives the agreement realisation condition (ARC) from above, recalls a conclusion made in chapter 2: there we derived both the absence of SAI in English subject extractions and the absence of complex inversion in French co-occurring with subject extractions, by identifying the operator-Case-licensing feature (alias *iota*) with the feature licensing nominative Case (alias *iota*). We thus assumed that the subject is Case-licensed and operator-licensed under CP. Note, that (88) derives this result, while (87) does not. I therefore choose the Economy-Principle (88) to account for the HSR. We now have a unified account for the ill-formedness of (89)a, (SAI in English subject extraction), (89)b (complex inversion with subject extraction in French) and (89)c (the indirect strategy with subjects in Irish), a result that is welcome.

- (89) a. *Who did eat all the oranges?

b. *Qui a-t-il mangé toutes les oranges?
who has-he eaten all the oranges

- c. *Na páistí a d'imreoidís anseo.
 the children aN play-3P here
 'The children that would play here'

Both do-support ((89)a) and the clitic on Infl ((89)b) were assumed to be language particular last resort mechanisms in order to rescue the subject NP from violating the Case filter (due to the spec/head licensing feature of Infl (iota) being 'taken up' by the operator in Spec/CP). However, since in the case of subject extraction both can be accomplished under Spec/CP, do-support and il-cliticisation, respectively, are non-economical, therefore impossible. Note another, more interesting, possibility: if operator Case and the Case for nominative subjects are identified, we might say that the subject can A'-bind from in situ, so that it does not even have to move to Spec/CP.⁶⁰ This implies that also Spec/IP can function as an A'-position in these languages.⁶¹

(89)c can be accounted for similarly. Let us suppose that aN is an operator licensing feature; above we said it was a complementizer agreeing with an operator in Spec/CP. This fits very well with the kind of operator licensing theory outlined in chapter 2, where we assumed operator licensing to be accomplished under a spec/head relation (just like Case). Assuming now that aL is also an operator licenser, as well as a Case licenser for NPs, then both requirements are met under Spec/Agr₁P in Irish, too.⁶² The three cases under (89), on the surface so different, end up being very similar.

⁶⁰ This conclusion is also reached in de Freitas, Noonan & Shaer 1991.

⁶¹ See Valois & Dupuis 1990, which argues that in French stylistic inversion the subject remains *in situ*; this would leave Spec/IP open for *wh*-movement. See also Pesetsky 1989, which argues for *wh*-movement to Spec/IP in English.

⁶² Note, that while I have assumed Infl in English, French, etc. to be an operator licenser as well as a Case licenser for nominative subjects, aN (as opposed to aL) is merely an operator licenser.

Concerning the optionality of employing the indirect strategy, a grammar driven by economy has a hard time. However, this is a general problem for the phenomenon of optionality in grammar. Ultimately, the statement that 'X can do Y, therefore must', would exclude any kind of optionality, unless two possible derivations are exactly equally economical. However, the fact that there exists no absolute definition of what is economical and what is not constitutes a serious problem for any kind of explanation in these terms (in fact, it calls into question the justified use of 'explanation'), since we have no real basis of deciding when two derivations are truly equivalent. On the other hand, it is not clear why notions such as Economy should not play a role in language. The problem lies clearly with a lack of a theory of such. Note, thus, that the optionality with respect to object relativisation is equally a problem for Shlonsky's account of relativisation derived by economy. I have nothing to add here, except the possibility that moving the object NP over the subject to a Case position is somewhat marked, so that the resumptive strategy is not AS uneconomical with respect to it than as if it was employed for subject relativisation (Recall that the direct strategy IS the preferred one, and the only possible one in Welsh also for objects.)⁶³

In this section I have presented data involving wh-movement constructions, that were seen to be best explained by a Case theoretic account. In the

⁶³ One possibility worth mentioning is that direct object relativisation versus the indirect one are relativisations from different positions. Thus, both McCloskey (1990) and Duffield (1991) suggest that one might relate the resumptive strategy to the observation that object pronouns undergo rightward movement in Irish (assuming that the resumptive strategy must apply whenever the pronoun has extraposed). However, the evidence is inconclusive, since the resumptive pronoun can occur in either the extraposed or the non-extraposed position. Since I suggested above to analyse pronoun postposing as a substitution movement into a specifier, it is unclear why in these cases a resumptive strategy would have to apply. I leave this matter unresolved for the present.

next section I will address properties of long distance movement, data that seem at first sight problematic for this view.

4.4. Long distance movement. Unlike Welsh, Irish permits the direct strategy in cases of extraction out of more than one clause. This is problematic for the present account, since the direct strategy is analysed in terms of Case checking configuration. However, to maintain that an NP is Case licensed more than once, and outside of its clause, seems very implausible. The Case-driven account predicts the following pattern of a subject or an object extraction: the particle *aL* in the most embedded clause, resulting from the highest licit agreement configuration being Spec/Agr₁P, and an agreeing complementizer *aN* in every higher C. This pattern is illustrated under (90):

(90) $NP_k [Op_k aN [IP \dots [CP t_k aN [IP \dots [CP t_k [IP t_k aL [\dots t_k]]]]]]$

However, among the diverse patterns we find in long distance relativisation, (90) is not to be found — a fact that must be accounted for. I will begin by describing the indirect pattern, as its derivation is more straightforward.

4.4.1. Indirect strategy. In long distance relativization with the indirect strategy, the first possible pattern we find is that the topmost C surfaces as *aN* and all the lower ones as *go* (McCloskey 1990):

(91) *an rud ar dhúirt sé go gcoinneodh sé ceilte é*
 the thing *aN* said he that keep(cond.) he hidden it
 'the thing that he said he would keep (it) hidden'

At the extraction site, there is either an agreement reflex on the Case checking head (as in movement out of PPs, NPs, Progressive VPs) (as in (92), or an overt pronoun (if movement proceeds from direct object position of a tensed verb) as in (91).

- (92) Cé shíleann Nóra go gcreideann Seán gur labhair Nic leis
 who thinks N. that believes Seán that spoken N. with-3s
 'who does Mary think that John believes that Nic spoke with?'

The pattern is schematized below:

[NP [_{CP} Op_k aN ... [go [..... [go [.....t_k.....]]]]]

I will assume that here we have a non-movement strategy. The complementizer aN in the top-most C is the result of a agreement with a base-generated operator in Spec/CP. Thus, at the extraction site there is either an overt pronoun (direct objects of tensed verbs) or a pro in the Spec of the category that has been relativized from.

The second pattern we find in indirect relatives is one where one finds the aN complementizer at every intervening C.⁶⁴ The example (93)a is schematized in (93)b:

- (93) a. an talamh ar mheas mé a raibh an ceol ag teacht as
 the land aN thought I aN was the music coming from-3s
 'the land that I thought the music was coming from' [McCloskey 1990]

⁶⁴ This pattern is much more rarely found than the one where we find the normal, unagreeing complementizer, at each intervening COMP (see McCloskey 1990).

- b. [NP [CP Op_k aN [... [CP t_k aN [... [CP t_k aN [...t_k ...]]]]]]]

For these cases I assume that the relativized element has moved successive cyclically. The agreeing complementizer aN at every intervening C thus exhibits nicely the fact that in each Spec/C there is a trace. What my analysis predicts is the following: if long distance relativisation proceeds out of an island, the second pattern, the one I associate with movement should not be possible. Unfortunately I have not been able to check this prediction accurately, because the speakers I consulted with generally disliked the cases with intervening aNs. However, as Máire Ní Chiosáin (p.c.) points out, she does feel there to be at least a contrast, meaning that relativisation from an island with intervening aN seems worse than with intervening 'go's. This needs to be checked more solidly in the near future.

In the case of subject relativisation, we find either the direct strategy (see section below) or the first pattern of the indirect one, which takes the indirect complementizer in the matrix C and the normal subordinating complementizer *go* at every lower C:

- (94) an fear ar shíl mé go dtiocfadh sé
 the man aN thought I that come(COND) he
 'the man that I thought (he) would come'

Crucially, the most embedded C cannot contain the aN complementizer. This mirrors the Highest Subject Restriction of simple short distance subject relatives (see 4.3.4.).

- (95) * an fear ar shíl mé a dtiocfadh sé
 the man aN thought I aN come(COND) he
 'the man that I thought that (he) would come'

Summing up, long distance subject and object relativisation behave like relativization from direct object position in the sense that they employ optionally the direct or the indirect strategy.

4.4.2. Direct strategy. In the direct strategy, we find the direct strategy marker aL at each intervening C. This is illustrated in example (96)- and schematized in (97).

- (96) object:
 An rud aL shíl mé aL dúint tú aL dhéanfá _
 the thing aL thought I aL said you aL do(COND-2S)
 'the thing that I thought you said you would do'
 [McCloskey 1990:]

- (97) subject:
 Feicim an fear a shílim a bheadh sásta.
 see-1S the man aL thought-1S aL be(COND) content
 'I see the man that I think would be content'

[O'Siadhail 1983:63]

These patterns are problematic for the proposed analysis for the following reason: it was argued that aL is always the reflex of a Case checking configuration, and that it occurs only in those cases where the Case checking head of the relativized element is in a Spec/head configuration at S-structure

which is higher than Tns. Since an element is presumably only Case checked once, and only by its Case checking head, this predicts that we find aL in the most embedded clause (AgrP), and subsequently the agreeing complementizer aN in every higher clause:

NP [aN[aN[aL]]]]

However, this pattern is not possible. Instead, whenever the direct pattern is chosen in the most embedded clause, aL has to appear cyclically at every intervening clause. Under the revised analysis of direct relativization, this implies that the element has to move through each Spec/Agr₁P in each clause.

Another complication that Irish introduces to the Case theoretic approach to direct relativisation is the fact that, unlike Welsh, movement out of an infinitival clause and progressive clauses also optionally permits the direct strategy. This is shown in (98):

(98) a. indirect

an rud ar theastaigh ó Sheán [é a dhéanamh]
 the thing aN wanted from Sean it aL do-INFIN
 'the thing that Sean wanted to do'

b. direct

an rud ar theastaigh ó Sheán [_ a dhéanamh]
 the thing aL wanted from Seán aL do-INFIN
 'the thing that Sean wanted to do'

Again these are problematic, since here the verb does not raise out of its VP (or AgrP/Progressive Phrase). These two unexpected patterns should have a unified explanation.

4.4.2.1. Wh-agreement. I will adopt an analysis that is motivated by comparing Irish to languages that have Wh-Agreement such as Palauan and Chamorro (cf. Chung 1982; Georgopoulos 1990). These languages exhibit a certain kind of Case agreement when an element is in an A'-binding relation at S-structure. What is interesting is the following: if an element is moved successive cyclically out of a clause, then it Case-agrees according to whether it is nominative or accusative in the lowest clause, but in every higher clause the Wh-agreement on the verb reflects the Case the clause itself bears. Thus, it will be nominative if extraction is out of a sentential subject, and non-nominative if extraction is out of a complement clause. Two relevant examples are presented below (taken from Georgopoulos 1990): (99)a. is a case of a subject extracted from a subject clause (i.e. a sentential subject), so that we find +nom-agreement on both verbs; and (100) is a case where a subject is extracted out of a complement clause: there we find +nom-agreement on the lowest verb, and -nom-agreement on the higher verb.⁶⁵

(99) a. a Mary_i [a kltukl [el kmo ng-oltoir er a John _{-i}]]

wh+nom-clear comp wh+nom-love, P

'Mary_i (it's) clear that _{-i} loves John.'

⁶⁵ Two more attested combinations are: [-nom] agreement on the lowest verb and [+nom]-agreement on the higher verb; in this case a non-subject has been extracted out of a sentential subject clause; and [-nom]-agreement on the lowest verb and [-nom]-agreement on the higher verb, - extraction of a non-subject from a complement clause.

b. a John_i [a kltukl [el l-oltoir er ngii_i a Mary]]

wh+nom-clear comp wh-nom-3-love P him

'John, (it's) clear that Mary loves (him).'

(100) a.ng-te'a_i a l-ilsa a Miriam [el milnguui er a buk er ngii _{-i}]]

who wh-nom-3-saw comp wh+nom-read P book P her

'Who did Miriam see reading her book?'

I do not want to enter a discussion of wh-agreement in these languages, as it would lead us too far afield from Irish.⁶⁶ But I want to extract an intuition from these data, which is that the Case of the clause that is extracted from is reflected on the matrix verb selecting that clause.⁶⁷

Recall the condition on chains (CC), which states that A-bar chains must be Case-checked at S-structure. Let us extend this condition a little, and let us say that clauses that enter an A'-relation, meaning here that an element is A'-moved out of them, must be Case-checked at S-structure.⁶⁸ However, this does not mean that the whole clause moves to its Case-checking position (in line with the Case resistance principle, cf. Stowell 1981)) but that they are in some way

⁶⁶ However, it seems to be that the Case-theoretic approach has potential for account for the type of wh-agreement found in these languages. I will leave the issue open for research.

⁶⁷ Geogeopolous assumes that clauses in Palauan are Case marked. I will follow her in that assumption, but assume it for all languages. Thus, not only sentential subject clauses but all embedded complement clauses would be like that. Note that there are verbs taking clausal complements which have a pleonastic in their object position:

- (i) I take it that Bill has not handed in his paper yet.
- (ii) Rumour has it that the lions are prowling the alleys.

Generalising this would give us something like like "He said it that...; he wants it that...; he believes it that". It is unclear to me why these are ill-formed in English and German and French.

⁶⁸ Actually, we should say 'can be Case-checked', since the direct strategy is optional in long distance relativisation — we here have the same unresolved problem with optionality of object relativisation.

related to their Case position — Spec/Agr₁P of the matrix verb. Let us say the following: an object or subject NP moving out of a clause moves through the position in which the clause is Case-checked. Technically, we might accomplish this in the following way: when the element moves through Spec/CP, then it is co-indexed with the head of CP. The head of CP, in turn, bears the same index as CP, as features travel freely between the various bar-projections. By transitivity, thus, the wh-phrase in Spec/CP is co-indexed with CP itself. This makes it possible for the wh-phrase to move on to the Case-position of the clause (recall that we said Spec/AgrP, though constituting a CASE-position, is an A'-position). As a result we receive a successive cyclic occurrence of aL. The aL marker in the lowest clause reflects Case checking of the moved wh-phrase itself, and every aL in the higher clause reflects Case-checking of the CP that has been extracted from. In other words, if a clause has an object or a subject NP move out of it by wh-movement, then instead of being in a Case chain with a pleonastic in its Case position, it is in a Case chain with the element that was extracted from it, thus it is co-indexed with the trace that it contains.⁶⁹ The chain of this type is illustrated in the bracketing given below:

$$(101) \quad [_{CP} X_{P_{i/k}} \cdot [_{YP} t_{i/k} \cdot Y \cdot [_{CP_k} t_i \cdot [_{YP} t_i \cdot Y \cdot [\dots [_{CP_i} t_i [_{C_i} C_i [_{IP} \dots t_i \dots]]]]]]]]$$

There is one pattern of successive cyclic extraction which has not yet been mentioned, and which is problematic for the gap vs. resumptive strategy and also the case analysis, but which can be captured nicely under an analysis of Case agreement with a clause that has been extracted from. In these cases, an indirect element is wh-moved to the first Spec/C, and as expected we find the

⁶⁹ This analysis implies that the element bears multiple indices if it is moved out from more than one clause.

complementizer aN (the element is Case checked lower down, e.g. in PP). However, moving it further, each higher clause contains the particle aL. Consider the following examples:

Examples (102)-(103) from McCloskey 1979:19.

(102) Deir siad go measann sibh go bhfuil an eochair insa doras
 say they that think you that is the key in the door
 'they say that you think that the key is in the door'

(103) an doras a deir siad a mheasann sibh a bhfuil an eochair ann
 the door aL say they aL think you aN is the key in-it
 'the door that they say that you think the key is in'

This pattern is a problem for an analysis that treats the *aN* pattern as a resumptive pattern with a base-generated operator, since we would expect the operator to be base-generated in the highest position, namely its scope position. What this analysis would have to say about (103) is that there is a base-generated operator in the lowest Spec/CP and it moves up to the matrix CP, therefore triggering the direct strategy complementizer. However, for the Case checking analysis this analysis that assumes that clauses that are extracted from are Case-checked, this is an interesting result: the *aN* in the first COMP is as expected, because the element is not Case checked there (as it is Case checked below in the PP). Now the element continues to move out of its CP, and it passes through the Case position of its clause, which it Spec/Agr in the next clause up. So we get the pattern

(104) $[_{CP} Op_k aL [\dots [_{CP} t_k aL verb \dots [_{CP} t_k aN verb [_{PP} t_k P_{+agr} t_k]$

Again, my analysis makes the prediction that this pattern is only found if there is syntactic movement. That is, the sequence aL...aL...aN should not be available if relativisation is out of an island (complex NP, co-ordinate structure..).

4.4.3. Infinitives. Another case where Irish differs from Welsh is with respect to movement out of infinitive clauses. Here Welsh consistently only permits the indirect strategy. This was expected, as the Case checking head (the infinitival verb) does not raise to T or higher, and the wh-moved element is thus Case checked within the VP. Consequently, we find an agreement marker on the infinitival verb (see chapter 3 for discussion). In Irish, we have the option of indirect or direct strategy when an object is moved out of a) a progressive phrase⁷⁰ or b) an infinitive phrase. This is illustrated under the examples in (105)-(106) [examples taken from McCloskey 1990, appendix; the examples under (a) always exemplify the indirect strategy, and the b-examples the direct strategy):

Subject of an embedded nonfinite clause:

- (105) a. duine ar bith ar mhaith leat é beannú sa tsráid duit
 person any aN you-would-like him greet in-the street to-you
 'anybody that you would like him to greet you in the street.'
- b. duine ar bith a ba mhaith leat _ beannú sa tsráid duit.
 person any aL you-would-like greet in-the street to-you
 'anybody that you would like to greet you in the street'

⁷⁰ I will not discuss the cases of progressive phrases here. I will simply assume that, when the direct strategy occurs from them, they have the same categorial status as non-progressive infinitives. See Duffield (1991) for a detailed account of the 'ag -> aL' rule that applies here.

Object of an embedded nonfinite clause:

(106) a. na dílseoirí seo ar theastaigh ón Uasal Ó hEadhra iad

these loyalists aN wanted from Mr. Ó Hara them

a thabhairt isteach sa ghluaiseacht.

aL bring(inf) in into-the movement.

'these loyalists that Mr. Ó Hara wanted to bring (them) into the movement'

b. na dílseoirí seo a theastaigh ón Uasal Ó hEadhra ____

these loyalists aL wanted from Mr. Ó Hara

a thabhairt isteach sa ghluaiseacht.

aL bring(inf) in into-the movement.

'these loyalists that Mr. Ó H. wanted to bring into the movement'

The (a) cases are what we expect: since the Case checking head remains low in the tree (i.e it does not raise to Tns), the wh-moved element is Case checked under that projection, leaving an agreement reflex.

At first sight these examples are also problematic for the Case-theoretic account of the direct vs indirect strategy. However, I suggest to treat them on a par with the direct strategy successive cyclic cases out of tensed clauses, as they were analysed in the preceding section. Assuming that infinitives are also CPs in Irish, we can say that an element moving out of them moves through the position in which the clause is Case-checked.

Regarding progressive constructions, there are also two options. One is the indirect strategy, where we find agreement on the aspectual head of the

progressive phrase (cf. (107)a). However, here too, we find the option of employing the direct strategy (cf. (107)b). This goes together with changing the aspectual preposition *ag* (or *do* + possessive pronoun) to the particle *aL*, a process that seems restricted to extraction contexts and is sometimes referred to as the *ag* → *aL* rule (cf. Duffield (1991:112ff)).⁷¹

- (107) a. *an rud a raibh siad dhá chuartú* ____
 the thing *aN* were they 3Sm seek(PROG)
 'the thing that they were seeking'
- b. *an rud a bhí siad a chuartú* ____
 the thing *aL* were they *aL* seek(PROG)
 'the thing that they were seeking'

Interestingly, this *ag* → *aL* rule applies only when the direct object of the progressive verb is an element that receives Case, namely an object of an agentive verb, and not an adjunct or non-referential NP (see Duffield op. cit. for the relevant data). The option of the direct strategy comes as some surprise. Recall from section 4.2.1. that we analysed progressive constructions as nominal constructions, based on the fact that the pronominal agreement paradigm is the same as the one we find in NPs. However, NPs may never employ the direct strategy in relativisation. I would like to suggest that what is happens here is that progressive phrases can optionally be projected as verbal constructions with an AgrP, analogous to the infinitival constructions with the leniting particle *a*. Interestingly, this possibility seems to be restricted to

⁷¹ Examples taken from McCloskey 1990; appendix.

Northern dialects, that is those dialects which project infinitival clauses with a TP (cf. (54)) and not those dialects (Munster and Connacht) which project them without a TP (cf. (55)). This is expected, since there needs to be a position for the default accusative Case-marked subject, as the clauses are no longer small clauses (which license default Case-marked subjects in all dialects) if they are projected as verbal infinitival constructions.⁷²

4.5. Summary and speculation. In this chapter, I have claimed that there are three situations where NPs are Case checked at S-Structure in Irish: (i), the case of pronominal NPs: these were argued to move to specifier position, provided that their Case-checking head licenses a specifier position at S-structure, which is also a licit specifier position; (ii) subject and object NPs in infinitives, that are Case checked under a functional category (AgrP/FP) lower than T; and (iii) NPs that undergo wh-movement to Spec/AgrP and have their Case assigner move along to Agr.

It was suggested that the earliness principle requires that NPs raise to their Case position as early in the derivation as possible (thus, at S-structure, if possible, and else at LF). It was suggested, that the general absence of movement of overt, non-pronominal NPs might be attributed to a generalised '2-filled-COMP-filter' (Sportiche 1992) that holds for Irish functional projections. The three environments where elements do raise to their Case-position at S-structure could now be accounted for in the following way: since both pro and

⁷² For why it is restricted to extraction contexts to project progressive constructions as verbal infinitive constructions, I have no answer. It seems that the preferred way of expressing progressive constructions is as the nominal one. But since the direct strategy — if available — is preferred for economy reasons, the preference for nominal constructions might be overruled by the possibility of projecting them also as verbal constructions that permit the direct strategy. Recall also, that apparently there is a drift towards projecting them as verbal constructions with the leniting particle *a* even in contexts without any extraction (see section 4.2.1).

1 wh-traces are null elements, they would not violate against such a posited filter in Irish. The only apparent exception of the '2-filled-FP- filter' then would be AgrPs: in infinitives and in interrogatives.⁷³ I suggested to relate the absence of '2-filled-FP- filter' effects of these projections to the fact that their head does not contain any overt morphology. From this, it was argued, also follows the impoverished nature of the agreement established under these projections (the invariable agreement 'aL'), which in turn was argued to account for the fact that the AgrPs are indifferent as to whether they Case-license a subject or an object NP.

Let us return to the question repeated from above: why do we only find Case licensing under an "aL-projection" in infinitives and wh-movement contexts? There is a further piece of data that has not yet been mentioned, which is that with the particle *aL* we find a special 'relative' form of the verb. This phenomenon has been lost in some dialects, but is still found in Galway Irish in the present and the future tense (see McCloskey 1979; Stenson 1981):

- (108) Céard a ólfaidh tú?
what aL drink-fut. you
'What will you drink?' [Stenson 1981:29]

- (109) Céard a ólfas tú?
what aL drink-fut-rel you
'What will you drink?' [Stenson 1981:29]

⁷³ So long as wh-movement of the overt wh-phrase is assumed to takes place (as opposed to a 'hidden cleft' analysis. See discussion above in note 5.

Suppose that the *aL*-projection has certain properties of a MOOD projection. Note that above, in the section of successive cyclic movement, we established a parallel between Irish and languages that exhibit *wh*-agreement. What is expressed in terms of *wh*-agreement (Chung 1982, Georgopoulos 1990) can in fact be expressed in terms of a realis/irrealis distinction on the verb (see Haik 1990, Campana 1988): in *wh*-movement contexts, we find the verb in irrealis mood. The fact that we find *aL* in infinitives, and in *wh*-extraction cases, and that the latter occurs with a 'special' form of the verb suggest that we might be dealing with a related phenomenon, that is both projections under which *aL* is established might be MOOD projections, one dominating the VP (associated with the verb) and the other dominating TP. I will leave these speculations for further work.

Chapter 5

Case, Events and Argument Structure¹

5. Introduction. The concern with respect to Case theory of the preceding chapters can be stated as follows: where in the syntactic tree and at which level of representation (i.e. S-structure or LF) are NPs Case-checked? To take one example, chapter 3 argued that in Welsh, Spec/NegP provides a Case position for the object NP. This accounted for the fact that Neg may appear with an object agreement marker attached to it. Note, however, one problem that needs to be avoided under such an assumption: we have to ensure that Neg does not 'add' an accusative Case to a verb. For if this was the case, we would predict unaccusative verbs to become accusative when negated. This is of course an unwanted result. We therefore want to distinguish the notion of 'providing a Case position for' from the notion of 'adding a Case to', or 'determining a Case'.

In this chapter, the attention will be turned precisely to that latter problem: what are the conditions that determine the structural Cases that a construction may avail over. In particular, I will illustrate a theory of structural Case that views accusativity as a configurational rather than a lexical property, resulting from syntactic geometry and not from lexical feature specifications on verbs. To this end, I compare two languages, Irish and English, showing that an investigation of Irish stative and perfective structures helps us understand how verb types determine syntactic geometry, and how syntactic geometry in turn determines

¹ Material from this chapter was originally presented at the WCCFL XI conference in Los Angeles in February 1992. I would like to thank the audience of that conference and members of the department of linguistics at McGill University, especially Joseph Aoun, Mark Baker, Ilan Hazout, Anna Szabolcsi, Benjamin Shaer, Dominique Sportiche, Tim Stowell, and Lisa Travis, for helpful questions, comments and suggestions. Special thanks to Máire Ní Chiosáin for supplying many of the Irish data. The research for this study was supported by grants from FCAR (#91-ER-0578) and SSHRC (#410-90.523).

patterns of structural Case marking. My main proposal here is that, universally, stative and perfective verbs are unaccusative. The surface difference between English and Irish is related to the presence and absence, respectively, of a lexical entry HAVE, a property that is independently attested in the grammars of English and Irish.

5.0.1. Statives. A striking fact about Irish is that it appears to have no stative transitive verbs — that is, psychological state verbs equivalent to such English verbs as *know*, *love*, and *fear*. As a first pass, this observation can be stated as a filter ruling out stative verbs that take two NP arguments:

- (1) * V NP NP (word order reflects Irish VSO order)
[stative]

The form that psychological state predicates typically do take in Irish is that of nominal constructions, as shown in (2).²

² My analysis also carries over to other types of stative verbs (e.g. *entail*). There does exist a verb meaning *surround*, however, it can only receive a process-like reading, as 'the police were surrounding the premise':

- (i) *Thimpeallaigh na gárdaí an teach*
surrounded the guards the house

Another case that should be pointed out: we do find an entry for *love* as a transitive verb in the lexicon (see also Duffield 1991:13, who uses this example):

- () *Ní ghráim í.*
neg love-1s her 'I do not love her'

This example is considered ungrammatical by all speakers I have consulted. Máire Ní Chiosáin points out (p.c.) that it is a form one might hear by Irish speakers from Dublin, which is not an Irish spoken area. We can thus safely conclude that these rare forms represent the intrusion of English into Irish.

A potential problem, however, are perception verbs (e.g. *see*, *hear*), which do exist as transitive verbs in Irish. However, these can be shown to pattern with achievement verbs, which are present in the Irish lexicon, and thus do not fall under the generalisation made in this paper (see Noonan in preparation).

- (2) a. Tá gaeilge ag Flíodhais.
 is Irish at Flíodhais
 'Flíodhais knows Irish.'
- b. Tá eagla roimh an bpúca ag Ailill.
 is fear before the Puca at Ailill
 'Ailill fears the Puca.'
- c. Tá meas ar Meadhbh ag Ailill.
 is respect on M. at Ailill
 'Ailill respects Meadhbh.'

This contrasts with languages like English, German, and French, which contain stative transitive verbs such as those in (3).

- (3) a. John loves/hates/fears Mary.
 b. Hans liebt/haßt/fürchtet Maria.
 c. Jean aime/déteste/craint Marie.

Since the missing verbs in Irish form a natural class (namely statives), it is unlikely that the differences between (2) and (3) arise from an accidental gap in Irish, and more likely that they represent a systematic grammatical difference between Irish and certain other languages. Given a 'principles and parameters' approach to language variation, as suggested by Chomsky (1979, 1981) and others, there are two basic ways to account for a syntactic difference like that described above: one is that the attested difference itself constitutes a primitive

difference between languages; and the other is that it can be derived from more basic differences. An analysis along the lines of the first approach might see this difference in the form of statives as a primitive one, reflecting a choice between mapping stative predicates onto the category VERB, as in English (and thus expressing them as ordinary transitive verbs in the syntax), and mapping them onto the category NOUN or ADJECTIVE, as in Irish. In such an analysis, the relevant parameter simply represents the possible choices that languages may make in realising certain concepts syntactically, where the setting of the parameter itself is of a coincidental nature. It thus resembles, for example, the head-initial/head-final parameter, which (to my knowledge) is neither reducible to any more basic features of the grammar nor has marked and unmarked settings. An analysis along the lines of the second approach, representing the null hypothesis, might view both languages as underlyingly the same, except that one has some 'special' property, which on the surface obscures its similarity with the other, i.e., the null case. Crucially, the existence of this 'special' feature must have syntactic reflexes independent of the feature originally attested, and thus be established by empirical considerations. It is the latter possibility that I will explore here, whereby the cross-linguistic variation in the realisation of stative predicates, as illustrated in (2)-(3), is best explained by positing one of the two languages — namely Irish — as directly reflecting some basic property of UG, and the other — English — as the diverging language. The relevant property of UG will be used to explain another, hitherto unrelated difference between Irish and English, involving perfective constructions, to be described below.

5.0.2. The case of participles. In English and many other languages, the past perfective and the passive participles are identical in form.

However, they do differ in behaviour, since the passive participle does not permit an accusative object, while the past perfective participle does, as demonstrated by sentences like (4):

(4) She has painted her door bright red.

This in itself is a surprising fact that should be accounted for. Even more surprisingly, the perfective participle in Irish IS passive in form, even though it receives a perfective reading. This is illustrated in (5):³

(5) a. * Tá Seán déanta é.

aux S. do(participle) it (acc.)

b. Tá sé déanta ag Seán.

aux it(nom.) do(participle) at Seán

'Sean has done it.'

The direct object raises to subject position in order to be licensed by nominative Case, while the subject NP is marked with the preposition *ag*. In this way Irish resembles Hindi, where, as Mahajan (1990) has shown, perfective verbs do not assign Case to their objects and therefore trigger an ergative Case pattern. Again, as a first pass, I will capture this generalisation with a filter:

(6) * V NP NP

[perfective]

³ I have purposefully used a sentence with a pronominal object, since nominative and accusative Case marking in Irish appears only on pronouns.

Notice that (6) is related straightforwardly to Case theory; (1), however, is not necessarily so. I will nevertheless maintain as a working hypothesis that stative verbs do not appear in Irish because they would not assign Case to their internal arguments, and thus relate (1) and (6) under a uniform Case-theoretic account.

Summing up the two observations: we find accusative stative and perfective verbs in English but not Irish. At this point there are two options available: either English constitutes the unmarked case, and some property of Irish (and Hindi) prevents accusativity with perfectives and statives; or Irish is the null case, and some property of English allows perfective participles and statives to surface as accusative verbs. I choose the latter option, which I formulate as (7):

(7) Stative and perfective verbs are unaccusative.

I choose this option for several reasons. The first is that Irish constitutes a subset of English, since (i) the class of possible verbs in Irish is more restricted (no statives), and (ii) the morphological identity of passive and perfective participles in English (and the attested unaccusativity of perfectives in Irish and Hindi) suggests that there exists only one participle in English, and that this is always unaccusative.^{4,5} The second reason is more intuitive and concerns the fact that, while English has many instances of highly conflated verbs such as *shelve* (meaning 'put on a shelf'), Irish typically expresses semantic relations in a very

⁴ The issue of aspectual differences between passives and perfectives will not be addressed here. It has frequently been argued that Irish constructions like (5b) are aspectually always perfective.

⁵ See Fabb (1984) and Cowper (1990), who also identify perfective participles with passive ones, based on their morphological identity.

transparent way syntactically; one might say it wears its lexical structure on its sleeve. So for example, a verb like 'bite' is expressed as 'take a bite out of', as shown in the following example:

- (8) Bhain an madra plaic as an mbuachaill beag
took the dog bite out-of the boy little
'the dog bit the little boy'

The third and final reason is to see where this hypothesis takes us, in particular whether it leads us to a deeper understanding of the phenomena of accusativity and ergativity. The remainder of the chapter explores the hypothesis from this perspective, first by establishing the structural conditions on accusativity (section 5.1.), and then by answering two questions: (i) why does (7) hold? and (ii) why do languages like English exhibit the accusative stative and perfective structures that they do? (sections 5.2-5.3).

5.1. Syntactic projection and accusativity. Until now, the claim that stative and perfective verbs do not assign accusative Case has been entirely stipulative. Ideally, we want to derive this claim from some common property of stative and perfective verbs. Before doing so, however, we need to explain the conditions on accusativity, since without such an explanation, we cannot even begin to search for a reason why stative and perfective verbs would be unaccusative. So let us address this issue presently.

5.1.1. Burzio's Generalisation. There exists a well-known correlation between accusativity and verb types, commonly referred to as Burzio's generalization (hereafter BG). This is stated in (9) (Burzio 1986: 185).

(9) $\text{Theta}_S \longleftrightarrow A$

(9) says essentially that a verb assigns accusative Case if and only if it also assigns an external theta role. Note that (9) is not an explanation, but only an observation of a general correlation between two properties. Moreover, the correlation is an odd one, as it combines two properties that belong to different modules of the grammar — Case theory and Theta theory — the connection between which is somewhat obscure. In fact, there is evidence that the phenomena of accusative Case assignment and argument structure are sometimes disjoint: in ECM constructions, a matrix verb can assign accusative Case to an NP that is the subject of the embedded clause, i.e. an NP that is not its internal argument. It is, however, quite clear that structural accusative Case is constrained by geometric notions such as c-command and government. Thus, assuming that BG is correct, we would like the presence of an external argument to have a geometric reflex from which accusativity falls out directly. In what follows, I will present and develop an idea outlined in Sportiche (1990), which pursues precisely this line of reasoning.

5.1.2. Deriving BG. Under a Larsonian phrase structure approach, VPs may have considerably different syntactic realisations depending on the number of arguments a verb has. This follows from the 'single argument hypothesis' (Larson 1988), according to which a verb with more than two arguments projects syntactically as two VP layers (see chapter 1). Let us make the stronger claim that a verb projects every NP argument with its own VP shell. This is captured by the following condition:

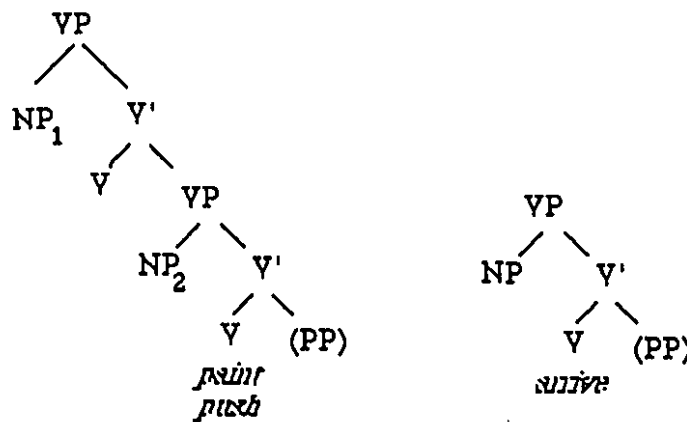
(10) **Condition on Argument Projection (CAP)**

NPs are always projected into a specifier position of the verb by which they are selected.

(10) states that if a verb assigns more than one NP argument (i.e. an internal and an external argument) it must project two VP layers in order for each NP to be projected into a specifier position. The tree structures below illustrate the geometric reflex of the presence of an external argument. The observation that only those verbs that project like (11)a assign accusative Case suggests that the upper VP layer is in some way responsible for accusativity.⁶

(11) a. transitive:

b. unaccusative:



This approach to VP structure can be related to Case theory through the assimilation of the mechanism of accusative Case licensing to that of nominative Case checking, taking it to be a checking device under a spec/head

⁶ As it turns out, the CAP is not strong enough: we need to assume that unergative verbs like *laugh*, (which like unaccusatives assign only one NP argument) project a double layer VP, since it can be shown that these verbs can license an accusative NP (cf. *Mary laughed herself silly*). We therefore need to say that whenever a verb assigns an external argument, a double layer VP is projected (see Sportiche 1990). This will follow independently from the analysis in section 3.

configuration in a functional category (Chomsky 1990; Johnson 1990; Mahajan 1990; Sportiche 1990; Travis 1991). Crucially, I will assume with Sportiche (1990) and Travis (1991) that the Case-checking category for accusative Case is within the double layer VP. We can now formulate the following condition on accusativity:

(12) Condition on Accusativity:

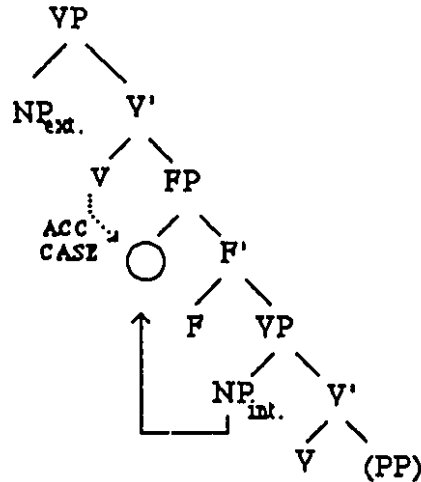
Accusative Case occurs whenever a functional Case checking category is governed by a verb at D-structure.⁷

(12) essentially states that all instances of accusative Case result from an ECM-type configuration. The tree below illustrates the checking mechanism of accusative Case.⁸

⁷ The clause 'at D-structure' is added for the following reason: in languages with verb-movement to INFL (like V2 languages or French; see Emonds (1978), Pollock (1989) amongst others), at S-structure, the verb governs the internal NP argument in a projection like (10b). Sportiche (1990) avoids this problem by assuming that V-to-I movement is an adjunction operation, so that INFL, rather than V, governs the position in unaccusatives. Although this constitutes an alternative solution, it conflicts with an analysis like that of Rizzi & Roberts (1989), who argue that V-to-I is a substitution process and I-to-C movement an adjunction process. Thus, for me, the availability of accusative Case is determined at D-structure.

⁸ The dotted line does not imply that the verb 'assigns' accusative Case to Spec/FP, but rather that it 'determines' it: accusative Case is no longer assumed to be 'assigned' by verbs, but to be 'checked' by the head of the functional category, and 'determined' by the structural position of the verb vis-à-vis Spec/FP at D-structure. For the present purposes, I remain agnostic as to the precise identity of FP. See Johnson (1990), Travis (1991) for various proposals. Note that ECM verbs, such as *believe*, govern Spec/IP — a Case-checking functional category — at D-structure and thus provide accusative Case. However, see Sportiche (1990) for evidence from binding that embedded subjects in ECM constructions undergo 'raising to object position', meaning raising to the functional category associated with the matrix verb. I leave this issue open here.

(13)



Under this approach, the claim made above that stative and perfective verbs are unaccusative implies that these types of verbs do not project a double-layered VP into the syntax. In the following sections, I will pursue this conjecture, beginning with a discussion of stative predicates.

5.2. Statives. A common assumption about the syntactic projection of arguments is that stative psych verbs project their EXPERIENCER argument in a hierarchical fashion as the external argument, so that verbs like *love* project in the same manner as verbs like *hit*, namely as a double layer VP (differing only in that the specifier of the upper VP layer bears the role EXPERIENCER rather than AGENT).⁹ In the spirit of the theory of accusativity sketched above and hypothesis (7) that universally transitive stative verbs do not exist per se, I will challenge this view and argue that experiencers are not mapped onto the position of external argument — in other words, that stative predicates **do not**

⁹ For arguments for and against the view that experiencer NPs are projected as external arguments, see e.g. Grimshaw (1990) and Carrier-Duncan (1985), and e.g. Belletti & Rizzi (1988), Baker (1988b), and Campbell & Martin (1989), respectively. Note that any strict interpretation of UTAH (Baker 1988a) would deny syntactic mapping of arguments according to a theta hierarchy.

project a double layer VP into the syntax. I shall motivate this claim by developing an idea from Hale & Keyser (1990).

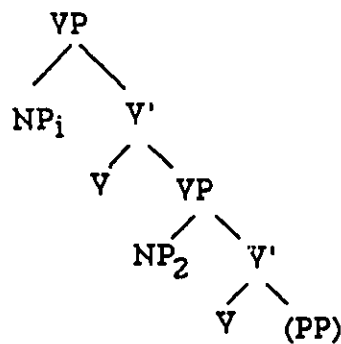
5.2.1. Hale & Keyser (1990). Hale and Keyser (henceforth H&K) (1990) pose the following questions about theta theory: (i) why are there so few theta roles? and (ii) can we derive the Uniformity of Theta Assignment Hypothesis (henceforth UTAH), stated below?:

(14) UTAH

Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure. (Baker 1988a: 46)

This is their idea in a nutshell: the answer to (i) is related to the limited inventory of lexical categories (namely V, N, A, P), and the answer to (ii) is that UTAH can be derived from the notion of unambiguous projection in Lexical Relational Structure (henceforth LRS) — that is, from the requirement that theta roles are unambiguously derived from the way in which arguments are projected in relation to each other onto lexical syntactic trees. Crucial for us here is their claim that the double VP template as in (15) represents the canonical LRS expression of a causal relation: the upper verb is viewed as an empty 'abstract causative verb' whose specifier is interpreted as the agent/causer of the event, whereas the lower VP corresponds to the notion of change of state, and its specifier to the AFFECTED PATIENT or THEME:

(15)



I shall adopt this idea, but assume (15) to be the syntactic representation of a given causation event, rather than just a LRS.¹⁰ Since I assume the tree above to be a syntactic representation, I take the relevant functional Case-checking projection to be within the two VP layers, corresponding to the syntactic tree in (13).¹¹

5.2.2. Events and Aspect. This approach might be related with the kind of event semantics developed in Pustejovsky (1988). He argues that the event structure of verbs is constructed from subevents: for example 'accomplishment verbs' in the sense of Vendler (1967) are composed of two subevents, a 'process' and a '(resulting) state'.¹² This goes nicely with the view that a double layer VP corresponds to a causation event: we might say that the upper layer corresponds to the subevent 'process' and the lower one — in fact the functional category within the two VP layers — to the notion 'resulting state'. However, this kind of mapping has to be refined in order to accommodate eventive unaccusative achievements such as *arrive*: these consist of a

¹⁰ For further details, see H&K (1990).

¹¹ See Tenny 1987, who illustrates in detail the relationship between the affected argument and the accusative marked NP.

¹² See also Grimshaw (1990).

subevent 'process', but I do not assume to project a double layer VP (hence their unaccusativity). It seems thus that we want to associate the subevent 'process' with an aspectual projection rather than with an upper VP-layer. Crucial for me is that the upper VP-layer is only projected if there is an agent/causer.

See also McClure (1992), who presents an aspectual approach to the mapping of event semantic information onto syntactic tree structure in a similarly layered way, embedded within a situation-based theory. He attempts to derive accusativity by means of a DO-operator, which for him adds an extra projection — 'outer Aspect' — (if I understand his proposal correctly) in whose specifier the external argument (the AGENT) is base-generated. This then would be very similar to what is proposed here.

Another approach which argues for aspectual information to be mapped onto syntactic tree-structure is found in Travis 1991, who analyses verbal morphology and its relation to Case patterns in Austronesian languages. As I do, she also assumes a double layer VP projection and takes the functional category within the layered VP to be 'inner Aspect'. Again, however, her proposal differs in that she assumes the projection of an upper layer VP in unaccusatives, so long as they are eventive, which is not compatible with the type of geometric approach to accusativity as it is undertaken here.

5.2.3. Syntactic projection of statives. According to the view adopted here, namely that only verbs denoting a causation event project a double layer VP by themselves, the syntax of statives cannot be as in (13), since they do not denote causation events. This derives my earlier claim that experiencer arguments are not mapped onto the external argument position, as Grimshaw (1990) and others have claimed. We can now account for the

observation that Irish has no stative transitive verbs: (13) is not a syntactic template compatible with statives, but it is the necessary configuration for the availability of accusative Case. We therefore make the prediction that statives do not surface as accusative verbs. This accounts for Irish, which we assumed earlier to represent the null case: we do not find any transitive stative verbs.

Consider the following example of the verb *weigh*, which, as in English, is ambiguous between a stative and an agentive reading.

(16) a. Meann Seán an caora.

weighs S. the sheep

'Sean weighs the sheep.'

b. Meann Seán 75 kilos.

'Sean weighs 75 kilos.'

At first sight, the example under (16)b seems to pose a counterexample to our claim. However, recall from the discussion in chapter 4, that we assumed the complement of the stative reading to be an element that does not receive Case, since it is not assigned a referential theta role (see Rizzi 1990). We thus accounted neatly for the lack of movement of the complement to the Case position to the left of the verb (that is to the specifier of the functional projection where Case is checked (see section 4.2.2. for discussion). Consequently, the word order SOV can only receive the agentive interpretation of *weigh*:

(17) a. Ba mhaith liom [Seán an caora a mhea]

I-would-like Sean the sheep to weigh

- b. * Ba mhaith liom [Seán 75 kilo a mhea]
I-would-like Sean 75 kilos to weigh

Going back to stative psychological predicates, we observe in fact that are not projected as verbs, but as predicate nominals in a periphrastic constructions, where the experiencer NP is marked by preposition *ag*:

- (18) Tá eagla roimh an mbúca ag Ailill.
is fear before the Puca at Ailill
'Ailill fears the Puca.'

5.2.4. HAVE. Let us now look at English, an obvious counterexample to what we have just derived in the preceding section, since, unlike Irish, it exhibits a broad set of stative transitive verbs, like *love*, *know*, *respect*, *hate*, *envy*, and *fear*. Having demonstrated that statives cannot by themselves project as transitive verbs in the syntax, we must now show that English possesses some special mechanism that permits, despite the universal projection procedures outlined in the preceding section, statives to surface as transitive verbs. What might this mechanism be? Note that most of the stative verbs listed above can be paraphrased by a possessive construction involving the main verb *have*:

- (19) a. Kathleen **has** knowledge of many little things.
b. Hannah **has** little respect for her sisters.
c. John **has** too much love for himself.
d. Ben **has** enough hate to wipe out a small village.

Let us assume that these constructions reflect the basic representation of stative predicates, and that along with an overt verb *have*, there can also be an abstract (i.e. empty) HAVE. The verbal counterparts of the periphrastic constructions in (19) derive from an incorporation process: abstract HAVE incorporates a nominal element. Thus, a verb like *fear* is abstractly represented as *HAVE fear*. The difference between English and Irish can now be explained as follows: the ability of statives to surface as accusative verbs in English derives from a lexical property, namely the existence of the verb HAVE in the lexicon of English but not Irish. Crucially, HAVE is more than just a lexical item that one language has and another lacks. I suggest we rather think of it as a 'lexical function', that permits a structural relationship to be established between an NP and a predicate clause, like a predicate NP, in such a way that it results in accusativity. I suggest that HAVE projects an NP argument into its specifier and takes a PredP as its sister. As such, it satisfies the structural condition on accusativity (12): a verb governing the specifier of a Case checking category at D-structure. The lexical entry of HAVE is as follows: ¹³

(20) HAVE: V, [NP, PredP] ¹⁴

¹³ Note, however, that we need to ensure that in sentences like (i)a the subject of HAVE is coreferential with the person who loves, and thus to distinguish these sentences from those like (i)c:

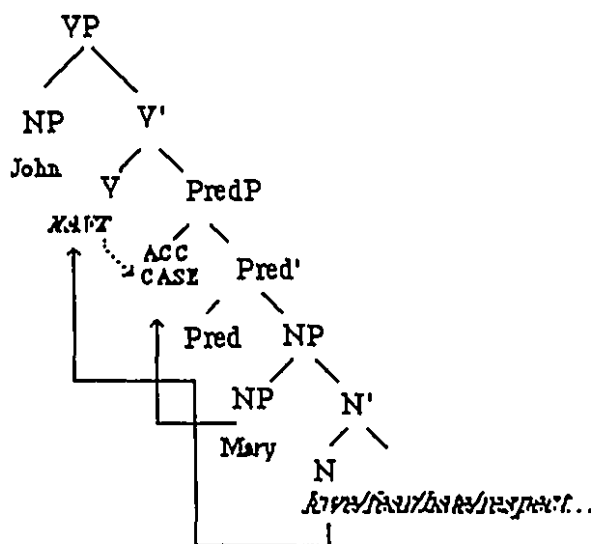
- (i) a. John has a deep love for his work.
- b. John loves his work.
- c. John has Mary's love.

This might be captured by means of a notion of predicate coindexation (to be discussed in section 5.4. below).

¹⁴ By PredP I mean simply a predicative functional projection.

Crucial for my analysis is that HAVE is not a raising verb (the reason for which will become clear in section 5.4).¹⁵ The tree diagram below illustrates the process: a nominal element like *fear* incorporates into the verb HAVE, and the internal argument of the predicate NP raises to Spec/PredP and is checked for accusative Case in that position.

(21)



5.3. Perfectives. In section 5.1, I proposed that perfectives are unaccusative. This proposal was motivated by (i) the identical morphology of the unaccusative passive and the perfective participle in English and other languages, and (ii) the observation that perfective verbs do not license an accusative object NP in some languages. As with statives, we can derive this conjecture by maintaining that perfectives do not project a double layer VP into the syntax, thus failing to provide the necessary structural configuration that outputs accusative Case. But what prevents the upper layer containing the

¹⁵ As such it differs from Tremblay (1990), who claims that *have* is a Case-assigning copula. This is incompatible with the present account, which seeks to derive the ability of *have* to assign Case from the syntactic geometry that it determines. See Campbell (1989: 48ff.) for arguments against a raising analysis of *have*.

external argument from being projected in perfectives? The explanation for the failure of statives to project two VP layers, namely that only verbs denoting causation events project in that way, does not carry over to perfective and passive participles. I will therefore propose a different motivation in the case of perfectives.

5.3.1. Participle Morphology. Let us assume that the participle morphology heads a projection which is placed within the double layer VP,¹⁶ and that the verb, upon incorporating into this projection, loses its categorial status as a verb and becomes in some way adjectival.¹⁷ As a result, the derived ambiguous categorial status of the verb participle prevents it from assuming the empty V-position of the upper VP, as this position requires a "pure" verb to fill it. By not moving into the upper V-slot, the lexical verb fails to license the upper VP layer; and as this layer cannot remain empty, a representation in which a participle projects an upper layer VP "crashes", while one in which only the lower level is projected survives. However, under the latter option, we lack the proper structural configuration for accusative Case — hence the unaccusativity of passive and perfective participles. We have thus accounted for the Irish case: the object NP, in order to receive Case, must move to subject position, where it is licensed by nominative Case; while the external argument is realised in a PP. Before analysing the English perfective *have*-construction, I want to consider another possible explanation for the failure of perfective verbs to raise to the higher verb slot.

¹⁶ This is assumed in Sportiche (1990), based on participle agreement in French.

¹⁷ It has been suggested that the participle loses its categorial feature [+V]. This carries over to the perfective participle in my approach.

5.3.2. Perfective Aspect. Note that an account of the verb's failure to move to the upper V-slot in the double layer VP purely in terms of the categorial status of the participle morphology is rather superficial; and it would be preferable to account for it in a more principled way, by showing that the adjectival character of the participle morphology is not accidental. We might attempt, therefore, to account for it in terms of aspectual interpretation. Let us begin by assuming that in order to receive a perfective (i.e. completive) interpretation, the verb must be prevented from moving to the higher V, since movement to this position would "activate" the process reading of the verb — an undesirable result. We might adapt Travis' (1991) proposal and identify the Participle Phrase (en-P in the tree below) with an Aspect Phrase headed by perfective Aspect. The distinct categorial status of this head might thus serve to prevent verb movement into the higher V-slot.

Note, however, that some caution is in order, since the mapping between aspectual/semantic interpretation and morphology/syntax in English is not a neat one. In fact, the data suggest the opposite of what the above account predicts:

- (22) a. Hannah wrote her thesis in two weeks.
b. ?* Hannah wrote her thesis for two weeks.
- (23) a. Hannah has written her thesis in a week.
b. Hannah has written her thesis for 3 years now.

The aspectual interpretation of this paradigm seems to be as follows: simple past tense receives preferably a perfective reading ((22)a, and perfective participles preferably receive a non-perfective reading ((23)b implies Hannah is

still writing it)¹⁸. Although (23)a is not exactly ill-formed, it does seem to receive a more marked interpretation than (22)a (more emphasis on the achievement of the subject??).

For this reason, I believe that we should abandon any kind of semantic account to derive the unaccusativity of perfectives, and stick with the former, more formal account in, possibly ad hoc, but at least safe in morpho-syntactic terms. We might nevertheless consider the account in aspectual-semantic terms on a diachronic level, by which I mean to say that there could be a historical reason for why participle morphology is adjectival.

5.3.3. Auxiliary *have*. Let us go back to perfective participles in English, French and German. In these languages, even though passive participles are clearly unaccusative, appear to maintain their accusativity - in conflict to what our theory of the preceding section predicts. I want to argue that perfective participles are also unaccusative in these languages, and that the availability of Case is due to properties of auxiliary *have*. In section 5.3, we established that main verb *have* provides the necessary configuration for accusative Case. Evidence from Hiberno-English perfective constructions, as given in (24), suggests that auxiliary *have* also seems to function as an ECM verb:

- (24) a. I have the books read.
b. She has her dinner eaten.

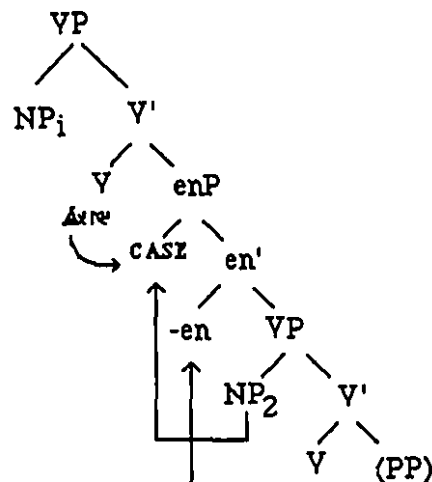
¹⁸ A phenomenon that is usually referred to as the 'present relevance of a past event'. (Benjamin Shaer, p.c.)

This is precisely what I will argue happens generally: auxiliary *have* provides accusative Case in perfectives.¹⁹ Furthermore, I maintain that it is not coincidental that auxiliary *have* and main verb *have* both assign Case: they are both a part of the same lexical function, the HAVE-function. In this way, we can relate the accusativity of statives and perfectives in English. However, the procedure in perfectives is slightly different from statives, in a way to be made explicit in the following section. The gist of my proposal is that auxiliary *have* rescues the upper layer VP in a perfective construction from crashing by functioning as a 'filler' — a 'dummy verb' — of the higher verb slot. This process is illustrated in (25):²⁰

¹⁹ Auxiliary *have* and accusative Case in perfectives have previously been related (see Fabb 1984, Cowper 1989, Roberts 1987, among others). Fabb and Roberts assume that the morpheme *-en* needs to receive Case. In passives, it receives Case from the verb, forcing the object to raise to subject position; in perfectives, however, *-en* receives Case from *have*; as a result the verb is free to assign its Case to the direct object. This analysis is incompatible with my own, which maintains that participle verbs never license accusative Case. See also Baker, Johnson & Roberts (1990). Incidentally, my proposal is also not compatible with their and Jaeggli's (1986) view that *-en* receives the external theta role. Under my view, *-en* represents a morpheme heading its own projection; as a head it is a category that receives neither a theta role nor a structural Case. Thus the observation from German that impersonal passives are possible only with verbs that assign an external theta role needs to be derived differently. I argue elsewhere (Noonan 1993) that this observation can be derived from properties of the passive modal *werden*, which this language uses to form verbal passives (impersonal passives are only possible with *werden*, never with auxiliary *sein* ('be').)

²⁰ I will return to the problem of word order in Standard English in section 5.4.1.3.

(25)



Going back to Irish perfectives, this possibility is not available, since the HAVE-function is missing from its lexicon: Irish not only lacks main verb *have* (see section 5.2.) but also auxiliary *have*. The only auxiliary that it contains is *bí*, which corresponds to English *be* in its unaccusativity.²¹ The crucial question

²¹ It should be mentioned here that there are languages without an auxiliary corresponding to *have*, which nevertheless seem to exhibit accusative perfective and stative structures. One such language is Arabic. However, it might be possible that properties of the aspectual system, or the manner of its projection into the syntax, in this language accomplish the same function as *have* in English (thanks to Joseph Aoun for pointing this possibility out to me). Note that even in Irish, there exists a construction which looks like it allows perfectives to surface as a transitive construction, which is in infinitives with the leniting particle *a*; cf the finite perfective construction (i) with the infinitival one (ii):

(i) Tá an doras dunte aige.
is the door closed at-him 'he has closed the door'

(ii) Ba mhaith liom [tú an doras a bheith dunte agat_k]
I-would-like you the door be-INF closed at-you
'I would like you to have closed the door closed the door'
(example adapted from McC&S 88)

(note: *a bheith* is the infinitival version of *tá*). See chapter 4 for details: there, I discuss infinitives with the pre-verbal particle *a*. and conclude that the projection where Case-licensing takes place is independent of accusativity, and that it represents a 'subject' Case. This implies that we have two 'subjects' in (ii): *tú* and *an doras*. See McCloskey & Sells 1988, who conclude precisely this and who discuss these types of constructions in detail.

What this shows is that languages can have various strategies to allow for the internal argument of a perfective to surface as an accusative NP, other than the one of *have* as in English, French, etc...

now is: how precisely is auxiliary *have* to be characterized, and how is it to be distinguished from *be*? What we need is for *have*, but not *be*, to result in a syntactic projection like that shown in (25). The answer lies in different lexical entries: while *have* selects its own NP argument, *be* selects only a small clause or PredP.²² Specifically, I propose that auxiliary *have* has the same entry as main verb *have* (see (20)), except for being obligatorily coindexed with the PredP it selects (a point to which I will return):

- (26) a. *have*: aux-v, [NP_i PredP_i]
 b. *be*: aux-v, [PredP]

An important stipulation in the hypothesis to be outlined shortly is the following:

(27) Condition on Argument Projection (extended version)

Where a head H selects XP, then

if XP=NP, XP is projected into a Spec/HP

if XP = anything else, XP is projected as sister of H' iff Spec/HP contains an NP.

(27) states that if a verb takes only one argument, it maps it into its specifier position, if it takes two, one an NP and the other a PP or PredP, etc., it maps the NP into its specifier and the remaining one into its complement position; and if it takes more than one NP, it must project two VP layers in order for each NP

Another language without a lexical item like *have*, but with transitive stative verbs, is Old Irish. Crucially, however, these verbs are deponent, bearing inflection for middle rather than active voice, unlike ordinary transitive verbs. (Thanks to Conn O Cleirigh for pointing this out to me.) I will leave these issues for further work.

²² I am using the term PredP for convenience. In this case AspP would be more accurate. We can view PredP as a variable ranging over various predicative functional projections, including small clauses.

to be projected into a specifier position (hence the wording 'into a Spec/HP as opposed to the Spec/HP). The CAP is equivalent to saying that an argument-taking head cannot have an empty specifier at D-structure (and, by the Projection Principle, at all levels of representation). What follows from the lexical specification (26)a in conjunction with the CAP is that the selection by *have* of an NP argument permits the PredP to appear as a sister complement, thus providing the relevant configuration for accusativity (i.e., a verbal head governing the specifier of a Case-checking projection at D-structure). Auxiliary *be*, on the other hand, is unaccusative, since it selects only a PredP, and is forced (by CAP) to project it into its specifier position, thus being unable to provide the required structural configuration for accusative Case.²³

5.3.3.1. Predicate coindexation. I will refer to the process of coindexing the NP argument of auxiliary *have* with the PredP in the lexical entry (26) as PREDICATE COINDEXATION. What I want to express by this notion is that *have* + verb form one complex predicate: *have* functions as an 'overlay' on the double layer VP, which, crucially, is projected by the verb's own argument specification. The verb itself, however, cannot licence the upper layer on its own (as it is unable to licence the higher VP carrying participle morphology). *Have* rescues the upper VP from crashing by functioning as a place filler; *have* is thus an auxiliary verb in the true sense: it 'helps' the verb maintain its two VP

²³ Perhaps existential *be* permits the projection of an existential expletive *there* into its specifier, thus satisfying the structural configuration for Case. This, then, would be the source of constructions like *there were three men killed* or *there is a unicorn in the garden*. See Travis (1991), who suggests an analysis — based on insights from Ritter (1990) — along these lines; and Lasnik (1988) for evidence that *be* assigns Case to the NP (as opposed to the NP receiving Case by being in a chain with the expletive *there*). This might also be the source of the French existential *il y a* construction, as well as the Southern German *es hat*, where auxiliaries *avoir* and *haben* ('have') take an expletive in their specifier.

layers.²⁴ However, the reason why it can function as such (and the way in which it is different from auxiliary *be*, which cannot accomplish the same) is its lexical entry as main verb *have*. The difference between main verb and auxiliary *have*, expressed through the notion of predicate coindexation, lies in the fact that it cannot add an argument in the same way that main verb *have* can. In the next section, I will discuss the ramifications of this proposal for languages like English, which uses *have* as an auxiliary in perfectives with unaccusative verbs, i.e. verbs that do not project two VP layers.

5.3.3.2. *Have* with unaccusatives. Note that with *have* acting as an accusative auxiliary, we run the danger of predicting the availability of accusative Case in a perfective construction with an unaccusative verb — that is, of predicting a contrast in (28), where (a) should be ungrammatical and (b) should be, if not grammatical, at least considerably better.

- (28) a. * Jack often arrives himself in tricky situations.
 b. * Jack has arrived himself in a tricky situation

If *have* takes its own NP argument (see (26)), then the subject *Jack* in (28)b would be the argument of *have*, and *himself* would be the argument of *arrive*, and in a structural position to receive accusative Case. Clearly, this prediction is wrong: (28) (a) and (b) are equally ill-formed.²⁵ The properties attributed to

²⁴ My proposal resembles those of Campbell (1989) and Cowper (1989) in saying that *have* takes its own argument position in terms of c-selection but that theta marking is accomplished through complex predicate formation. It also has some resemblance to the concept of 'argument transfer' within the theory of light verbs as developed by Grimshaw & Mester (1988).

²⁵ It is important to compare the constructions in (24) with unergative verbs, which can appear in precisely the constructions given in (22), if these are licensed by a PP or extent modifier:

- (i) He laughed himself silly.

auxiliary *have* in the preceding section exclude this possibility: the notion of predicate coindexation in its lexical entry implies that its ability to take its own NP argument is parasitic upon the verb's projecting an NP.²⁶ The lexical entry for the *have* that occurs with unaccusatives in English (which I refer to as *have2*) is thus as follows:

(29) *have2*: aux-v, [PredP]

Note that structurally, *have2* is just like auxiliary *be* (see (26)b). As a result, the PredP it takes is projected into specifier position. This is desirable, since languages like Italian and German seem to lack *have2* altogether and use the auxiliary corresponding to *be* in its place (thus, *have2* = *be*). In these languages, auxiliary *have* can only have a lexical entry as in (26)a — that is, it always needs to be licensed by a verb projecting an upper layer. English has generalised *have* to serve as the auxiliary whenever a perfective occurs.

5.3.3.3. Word order. Among the things yet to be addressed is the question of word order in Standard English (henceforth SE): even though the hypothesis that perfective auxiliary *have* acts as an ECM verb explains the Hiberno-English (henceforth HE) data in (24), SE word order presents a problem, since here the object does not seem to raise to receive Case from *have*. If the object does raise, then the interpretation cannot be that of a

(ii) She can drink him under the table.

Constructions like (i) and (ii) are possible precisely because the verb *laugh*, assigning an external theta role, projects an upper VP layer, and thus has the ability to assign accusative Case (see n. 5).

²⁶ This result might relate to data presented in Miyagawa (1989), who shows that the Japanese light verb *suru* cannot appear with an ergative nominal as its object NP.

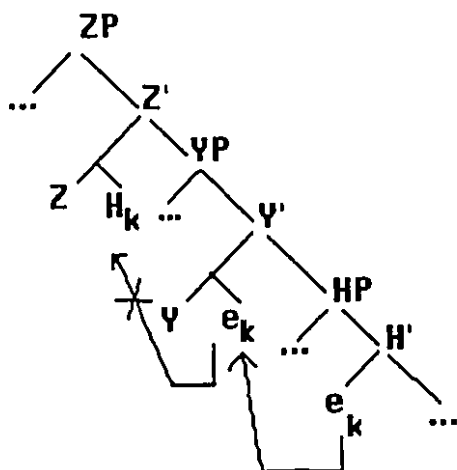
perfective as in HE, but must be that of a causative, where the specifier of *have* is interpreted as distinct from the agent of the participle verb.

(30) Joe has his door painted. ('Joe' cannot be painter)

This can be worked out by assuming (i) that the object NP in SE perfectives undergoes movement to its Case position at LF only (so that the word order of SE at LF is identical to HE perfectives), or (ii) that the participle verb adjoins to the V *have*, without actually incorporating into it.²⁷ I will choose the latter option and maintain that, in SE, the participle must adjoin to auxiliary *have* as a result of predicate coindexation. Under this hypothesis we have to allow for head movement to excorporate the head *have* in the case of subj.-AUX inversion, where only the auxiliary have moves to C. Movement of a partial head moving out of an adjoined head is usually assumed to be impossible, deriving from the Head Movement Constraint (see Baker 1988). This way, a head is prevented from moving through a head position and leaving the head of that projection behind. Such an impossible derivation is illustrated in (31):

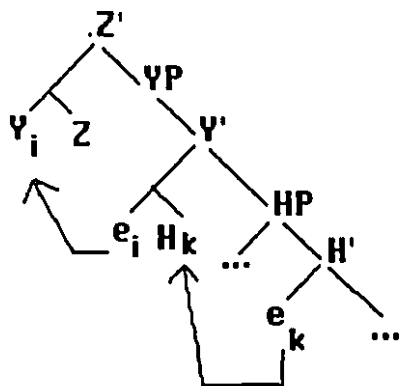
²⁷ A third way would be by permitting *have* to 'transmit' its Case-assigning ability to the participle (see Cowper (1990) amongst others for this suggestion). I do not consider this possibility here, since the present proposal departs from the view of 'Case marking ability' as a feature specification on verbs.

(31)



I suggest, however, that there exists a head/non-head asymmetry with respect to excorporation, and to permit excorporation in those cases where it is the head of the incorporated projection itself that excorporates. This kind of permissible derivation is illustrated under (32). H_k in (32) does not 'count' as a head and therefore does not induce minimality (preventing antecedent government by Y of its head trace).

(32)



This hypothesis that the participle adjoins to the auxiliary might find supporting evidence from Spanish, where participles must invert together with the auxiliary in inversion constructions, as is illustrated in (33); (examples taken from Torrego 1984:105).

- (33) a. Qué ha organizado la gente?
 ‘What have people organised?’

 b. * Qué ha la gente organizado?

Thus, in Spanish, excorporation of the auxiliary does not take place.

Going back to English, if the participle does not adjoin and we find the word order of (30), *have* in SE must be interpreted as a main verb, specifically as causative main verb.²⁸ In HE, since adjunction of the participle to auxiliary *have* is not obligatory, (30) is ambiguous between a causative and an auxiliary reading.

5.4. Possessives. Since Irish lacks the HAVE-function in its lexicon, we expect possessive constructions in this language not to surface as transitive possessive verbs. This is confirmed by the data: the theme raises to receive nominative Case and the possessor appears with the preposition *ag* — the

²⁸ However, there are other interesting constructions, where the NP in the specifier of *have* is obligatorily coindexed with a pronoun in a PP of its complement clause:

- (i) a. John_k had his computer die on him_k.
 b. Bill_k had his partner cheat on him_k.
 c. John_k has money on him_k.

In this case, the subject of *have* is usually interpreted as an experiencer. See Ritter & Rosen (1990).

same preposition that appears with the experiencer NP in statives and with the 'demoted agent' in perfectives. In English, these same arguments appear as the subject of *have*. This is illustrated in the two paradigms below:

(34) a. <u>Irish</u> :	poss: Tá carr ag Seán	<i>tá</i> NP	<i>ag</i> NP ²⁹
	stative: Tá eagla ag Seán	<i>tá</i> NP	<i>ag</i> NP
	perfect: Tá an doras dunte ag S.	<i>tá</i> NP V _{part}	<i>ag</i> NP
b. <u>English</u> :	poss: Seán has a car	NP <i>have</i>	NP
	stative: Seán has fear of lions	NP <i>have</i>	NP
	perfect: Seán has closed the door	NP <i>have</i> V _{part}	NP

We might think of the *ag* on the subject in Irish as an ergative marker. In this sense, Irish is a split ergative language, where the split occurs in statives and perfectives.

5.5. Conclusion. In this chapter, I have argued that, as the null hypothesis, stative and perfective predicates do not surface as accusative verbs, deriving this from (i) a view of accusativity as a configurational rather than lexical property, and (ii) a theory of syntactic argument projection. Crucial to my argument are the claims (i) that verbs project their event semantic structure into the syntax, and (ii) that specifiers of lexical heads cannot remain empty. The

²⁹ However, the construction differs from the *être à* construction in French in that the latter describes a relation of ownership. The difference manifests itself in the predicative character of the NP occurring with *have* and in the occurrence of a definiteness effect (see Campbell (1989) on predicate NPs and definiteness):

- (i) *? I have the house.
- (ii) *? J'ai cette maison.
- (iii) * Tá an teach agam.

unaccusativity of statives and perfectives was shown to derive from their inability to project a double layer VP into the syntax. Moreover, it was shown that HAVE in English (as well as German, French, and other languages) can 'simulate' a double layer VP³⁰ with the kinds of predicate types under discussion, thus providing the syntactic geometry necessary for accusativity. I view the HAVE-function as one possible tool which permits statives and perfectives to surface as transitive structures. However, my proposal does not exclude other means that languages might exploit to arrive at the same result.³¹

³⁰ However, I argue in Noonan (in preparation) that the double layer VP created by *have* does not behave exactly like that associated with a causation event, but that its upper layer has the properties of the lower layer in a 'causation VP'. In other words, the specifier of HAVE has properties analogous to an 'inner subject' rather than an outer one. This behaviour is shared by achievement verbs, which I also discuss there.

³¹ See n. 19.

Chapter 6

Conclusion

Regarding Case-licensing, the first part of the thesis can be summarized as follows: the site of Case-checking for subjects and objects may be variable, and depends in part on S-structure positions of Case-licensing heads and Case-licensees, and in part on language-particular properties (that is, it is subject to parametric variation). It was argued that NegP in Welsh provides a Case-checking specifier for the direct object; while TP (or another verbal inflectional projections such as MOOD phrase) generally provides a Case-checking specifier for the subject NP. The following generalisations, both pertaining to the concept of 'economy' in grammars, were established:

(1) NPs raise to their Case-position at S-structure if they can, otherwise at LF (Earliness, cf. Pesetsky 1989)

(2) If an operator can be Case-checked in and A'-bind from one and the same position, then it must.

Accordingly, it was argued for French and English subject *wh*-extraction that Case is checked under CP.¹ For Irish, it was assumed that some version of a generalised 'doubly-filled-COMP-filter' (cf. Sportiche 1992) holds across functional categories (hence, '2-filled-FP-filter'), which generally prevents NPs

¹ This has implications for V2 languages, namely, that the subject and object NPs are Case-checked under CP when they are topicalised (i.e. moved to Spec/CP) and the verb is in second position (i.e. in C). In work in progress, I argue that this may derive certain word order patterns in German successive cyclic extractions, which are somewhat similar to the patterns that we found in Irish successive cyclic movement.

from raising to their Case-position at S-structure.² However, it was shown that in those instances where the '2-filled-FP-filter' would not be violated (because either the NP or the head is a phonetically null element), NPs must raise and be Case-checked at S-structure, and that this is reflected in the syntax either through word order, verbal particles (which were analysed as agreement reflexes), or morphological agreement on the Case-licensing heads.

However, these considerations are in part independent of a more fundamental question about structural Case: namely, what determines structural Case and, in particular, accusativity. It is this last question that was addressed in chapter 5, where an account in terms of geometrical syntactic configurations, motivated by evidence from perfective and stative constructions in English and Irish, was adopted. I argued that the projection where accusative Case is established is a functional projection above the VP containing the object NP and below a VP layer containing the subject NP (assuming a Larsonian projection of VPs). This allowed us to formulate the following condition on accusativity:

(3) CONDITION ON ACCUSATIVITY:

Accusative Case occurs whenever a functional Case checking category is governed by a verb at D-structure.

The conclusions reached in chapter 5 evidently contradict the conclusions reached in the preceding chapters; while chapter 5 argues that the accusative Case position is situated within the double VP, chapter 3 and 4 showed

² Although this was explicitly derived only for Irish in chapter 4, it equally extends to Welsh.

instances in which the object is Case-checked in a projection higher than the base-position of the external argument — that is, outside the double layer VP, and possibly even higher than TP (cf. for example Welsh, and Irish wh-movement of direct objects). These latter findings harmonise with data from e.g. Mahajan 1990, which provides evidence from Hindi and German that clearly show that the direct object may move to an A-position that c-commands the subject NP.³ The former view, which takes the position for accusative Case to be relatively low in the tree — that is, below the base-position of the subject — is essentially the position argued for in Sportiche 1990, and has recently received support from Travis' (1991) study of verbal morphology in Austronesian languages. The conclusion thus seems to be the following: there is a Case-position for the direct object NP below the base-position of the subject, and a Case-position higher than the base-position of the subject. There are two possibilities: (i) one of these two views is wrong, and (ii) — the view put forth in this thesis — both views are right. If (ii) is the case, then the theory of Case licensing and the concepts of A-positions and A-movement will eventually have to be adjusted. For the moment, I suggest a distinction between CASE-CHECKING POSITIONS and CASE-DETERMINING CONFIGURATIONS: the functional projection within a double layer VP (e.g. AspP, if we adopt Travis' view), is a Case-determining position, since it is selected (governed) by a verb at D-structure and thus satisfies the condition on accusativity. On the other hand, those projections outside of the double layer VP that may be shown to Case-license a direct object are Case-checking positions. Perhaps these projections are always available but may only Case-check a category if an appropriate head moves into them (i.e., a head of a Case-determining projection).

³ See also Sportiche 1992, which argues for an AccP above TP in the syntactic representation, which Sportiche assumes to be the projection headed by accusative clitics.

Similarly, we have come to the conclusion that nominative Case may be checked in a number of positions, including A'-positions, Spec/TP, Spec/ASPECTP, Spec/MOODP, and Spec/INTP (Québec French). However, the availability of nominative Case, too, is subject to certain constraints. The generalisation seems to be that a [+ finite]-T 'determines' nominative Case in many languages, although we also saw that either habitual aspect or [+ future] mood in Irish is sufficient to 'determine' nominative Case in the absence of a TP.⁴ Moreover, we have seen that nominative Case may be checked in a variety of projections; e.g. IntP in Québec French, or under COMP. These latter two projections should be considered Case-checking projections, but are not sufficient by themselves to determine the availability of nominative Case. In other words, they do not 'add' a Case, but rely on a Case-determining head to incorporate in order to Case-check their specifiers.

Evidence from Irish suggested, furthermore, that Case-checking positions might be available for either NP argument of the verb, i.e. the nominative subject NP or the accusative direct object. This is restricted at S-structure, since it could be shown only for those projections that exhibit abstract (invariable) agreement (*aL*). However, the question arises whether this restriction is merely an S-structure effect, and the observation from Irish reflects a characteristic of LF Case-checking mechanisms (in other words, through its *aL*-projections F₁P and F₂P, Irish might be wearing LF-Case-licensing on its sleeve).

Another generalisation that seems to emerge from this thesis is that NPs are Case-checked as high in the syntactic representation as possible (see (2) above). This again raises the question whether (2) reflects properties of LF Case-licensing. That it does was suggested by the view to which this thesis

⁴ See Raposo 1987 for data from European Portuguese inflected infinitives, which show that in certain configurations nominative Case is also available in this language in [- fin] clauses.

subscribed that conditions must be satisfied as early in the derivation as possible (i.e. at S-structure if possible, else at LF; Pesetsky 1989).⁵ These questions, and many others emerging from this study, must be left to further work.

⁵ Note that the conclusions drawn in this study directly contradict Chomsky's (1992) proposal for a 'Procrastination Principle', according to which an operation, if it need not take place at S-structure, must not take place at S-structure and is postponed until LF.

References

- Adams, M. 1987. Old French and Pro-drop. *Natural Language and Linguistic Theory* 5: 1-32.
- Anderson, S. 1982. Where's Morphology? *Linguistic Inquiry* 13:571-612.
- Aoun, J. 1979. On Government, Case-marking and Clitic-placement. Ms., MIT, Cambridge, MA.
- 1981. ECP, Move α and Subjacency. *Linguistic Inquiry* 12.
- 1986. Generalized Binding. Foris Publications, Dordrecht.
- & N. Hornstein. 1986. Bound Pronouns. Ms., University of Southern California and University of Maryland.
- & A. Li. 1989. Scope and Constituency. *Linguistic Inquiry* 20: 141-172
- & A. Li. To appear. *Wh* in situ: Syntax or LF? *Linguistic Inquiry* 24.2.
- & D. Sportiche. 1983. On the Formal Theory of government. *The Linguistic Review* 2: 211-237.
- Authier, J. - M. 1991. V-Governed Expletives, Case Theory, and the Projection Principle. *Linguistic Inquiry* 22:721-740.
- Awberry, G. W. 1976. *The Syntax of Welsh: A Transformational Study of the Passive*. Cambridge University Press, Cambridge.
- Baker, C. L. 1970. Notes on the Description of English Questions: the Role of an Abstract Question Morpheme. *Foundations of Language* 6.2.
- Baker, M. 1988a. *Incorporation: Towards a Theory of Grammatical Function Changing*. University of Chicago Press, Chicago.
- 1988b. On the Theta Roles of Psych Verbs. Ms., McGill University, Montréal, QC.
- in preparation. Aspects of Mohawk. Ms., McGill University, Montréal, QC.
- & K. Hale. 1990. Relativized Minimality and Pronoun Incorporation. *Linguistic Inquiry* 20: 219-251.
- , K. Johnson & I. Roberts. 1990. Passive Arguments Raised. *Linguistic Inquiry* 20: 219-252.
- Belletti, A. & L. Rizzi. 1988. Psych-Verbs and *Theta*-Theory. *Natural Language and Linguistic Theory* 6: 291-352.
- Burzio, L. 1986. *Italian Syntax: a Government and Binding Approach*. Reidel, Dordrecht.

- Campana, M. 1988. Mood and Binding in Palauan. *McGill Working Papers in Linguistics* 5:163-190.
- Campbell, R. 1989. *The Grammatical Structure of Verbal Predicates*. Ph.D. diss., UCLA.
- & J. Martin. 1989. Sensation Predicates and the Syntax of Stativity. In E. J. Fee & K. Hunt (eds), *Proceedings of WCCFL 8*. Stanford Linguistics Association.
- Carrier-Duncan, J. 1985. Linking of Thematic Roles in Derivational Word Formation. *Linguistic Inquiry* 16: 1-34.
- Chomsky, N. 1977. On Wh -Movement. In A. Akmajian, P. Culicover & T. Wasow, eds. *Formal Syntax*. Academic Press, New York.
- 1979. Principles and Parameters in Syntactic Theory. In N. Hornstein & D. Lightfoot (eds), *Explanation in Linguistics*. Longman, London.
- 1981. *Lectures on Government and Binding*. Foris, Dordrecht.
- 1986a. *Knowledge of Language: Its Nature, Origin, and Use*. Praeger, New York.
- 1986b. *Barriers*. MIT Press, Cambridge, MA.
- 1988. Some Notes on Economy of Derivation and Representation. Ms., MIT, Cambridge, MA.
- 1990. Class lectures, MIT, Cambridge, MA.
- 1992. A Minimalist Program for Linguistic Theory. Ms. MIT.
- Cheng, L. 1991. *On the Typology of Wh-Questions*. Ph.D. diss., MIT, Cambridge, MA.
- Chung, S. 1982. Unbounded Dependencies in Chamorro Grammar. *Linguistic Inquiry* 13:39-77.
- & J. McCloskey 1987. Government, Barriers and Small Clauses in Modern Irish. *Linguistic Inquiry* 18.2., 173-237.
- Cinque, G. 1990. Types of A'-Dependencies. MIT Press, Cambridge, MA.
- Cowper, E. 1989. Perfective [-en] is Passive [-en]. In E. J. Fee & K. Hunt (eds), *Proceedings of WCCFL 8*. Stanford Linguistics Association.
- de Freitas, L. in preparation. ~~~~~ Ph.D. diss., McGill University, Montréal.
- & M. Noonan. 1991. Head Movement, Agreement, and the Status of Negation in Welsh. In L. Dobrin et al (eds) CLS 27/II: Parasession on Negation. Chicago Linguistic Society.
- , M. Noonan & B. Shaer. 1991. *Ignore α as a Principle of Economy*. Ms., McGill University, Montréal, QC.

- Duffield, N. 1991. *Particles and Projections*. Ph.D. diss., USC, Los Angeles.
- Emonds, J. 1978. The Verbal Complex V-V' in French. *Linguistic Inquiry* 9: 151-175.
- Fabb, N. 1984. *Syntactic Affixation*. Ph.D. diss., MIT, Cambridge, MA.
- Fukui, N. & M. Speas. 1986. Specifiers and Projections. *MIT Working Papers in Linguistics* 8:128-172.
- Georgopoulos, C. 1990. On A and A' Agreement. Ms., University of Utah.
- Grimshaw, J. 1990. *Argument Structure*. MIT Press, Cambridge, MA.
- & A. Mester. 1988. Light Verbs and *Theta*-Marking. *Linguistic Inquiry* 19: 205-232.
- Guilfoyle, E. 1990: *Functional Categories and Phrase Structure Parameters*. Ph.D. diss., McGill University.
- & M. Noonan. 1992. Functional Grammar and Language Acquisition. In C. Lefebvre, J. Lumsden & L. Travis (eds) *Functional Category Theory*. Special Issue of the *Canadian Journal of Linguistics*.
- Haïk, I. 1990. Anaphoric, Pronominal and Referential INFL. *Natural Language and Linguistic Theory* 8:347-374.
- Hale, K. 1989. Agreement and Incorporation in Athabaskan and in General. Ms, MIT, Cambridge, MA.
- & J. Keyser 1990: The Syntactic Character of Thematic Structure (Chap. 1). Ms., MIT, Cambridge, MA.
- & J. Keyser 1990: On some problems of method and the determination of lexical relational structures. (Chap. 2). Ms. MIT, Cambridge, MA.
- & J. Keyser 1990: Categories and Projections Chap. 3). Ms., MIT, Cambridge, MA.
- & J. McCloskey. 1983. On the Syntax of Person-Number Inflection in Modern Irish. *Natural Language and Linguistic Theory* 1.
- Harlow, S. 1981. Government and relativization in Celtic. In F. Heny (ed) *Binding and Filtering*. Croom Helm, London.
- Higginbotham, J. 1985. On Semantics. *Linguistic Inquiry* 16: 547-593.
- Holmberg, A. 1986. Word Order and Syntactic features. University of Stockholm.
- Horváth, J. 1985. Aspects of Hungarian Syntax and the Theory of Grammar. Foris, Dordrecht.
- Huang, C.-T. J. 1982. *Logical Relations in Chinese and the Theory of Grammar*. PhD. dissertation, MIT, Cambridge, MA.

- 1981/82. Move *Wh* in a Language without *Wh* Movement. *The Linguistic Review* 1: 369-416.
- 1988. Modularity and Explanation: The Case of Chinese A- Not-A Questions. Ms., Cornell University, Ithaca, NY.
- Jaeggli, O. 1986. Passive. *Linguistic Inquiry* 17: 587-622.
- Johnson, K. 1991. Object Positions. *Natural Language and Linguistic Theory* 9:577-636.
- Jones, M. and A. R. Thomas. 1977. *The Welsh Language: Studies in its Syntax and Semantics*. University of Wales Press, Cardiff.
- Kayne, R. 1984. *Connectedness and Binary Branching*. Foris, Dordrecht.
- & J.-Y. Pollock. 1978. Stylistic Inversion, Successive Cyclicity and Move *NP* in French. *Linguistic Inquiry* 9: 595-621.
- Kim, S. W. 1989. *Wh*-Phrases in Korean and Japanese are QPs. In E. J. Fee & K. Hunt (eds). *Proceedings of WCCFL 8*. Stanford Linguistics Association.
- Kitagawa, Y. 1986. Subjects in Japanese and English. PhD. diss., MIT, Cambridge, MA.
- Koopman, H. 1991. The verb particle construction and the syntax of PPs. Ms. UCLA.
- & D. Sportiche. 1990. The position of subjects. Ms., UCLA.
- Kratzer, A. 1989: Stage-Level and Individual-Level Predicates. Ms., University of Massachusetts, Amherst.
- Kuroda, S.-Y. 1985. Whether You Agree or Not: Rough Ideas about the Comparative Grammar of English and Japanese. Ms., UCSD.
- Laka, I. 1990. *Negation in Syntax: On the nature of functional categories and projections*. PhD. diss., MIT, Cambridge, MA.
- Larson, R. 1988. On the Double Object Construction. *Linguistic Inquiry* 19: 335-393.
- Lasnik, H. 1988. Case and Expletives: Notes Towards a Parametric Account. In R. Freidin (ed), *Comparative Syntax: Princeton Workshop II*.
- Lefebvre, C. 1982. *Qui qui vient? ou Qui vient? : Voilà la Question*. In *La Syntaxe Comparée du Français Standard et Populaire: Approches Formelle et Fonctionnelle*.
- Lightfoot, D. 1979. *Principles of Diachronic Syntax*. Cambridge University Press, Cambridge.

- Mahajan, A. 1990. *The A/A-Bar Distinction and Movement Theory*. Ph.D. diss., MIT, Cambridge, MA.
- McClure, W. 1992. Unaccusativity and 'Inner' Aspect. In Kural et al (eds). *Proceedings of WCCFL XI*. Stanford Linguistics Association.
- McCloskey, J. 1979. *Transformational Syntax and Model Theoretic Semantics*. Reidel, Dordrecht.
- 1984. Raising, Subcategorization and Selection in Modern Irish. *Natural Language and Linguistic Theory* 1:441-485.
- 1990. Resumptive pronouns, A-bar binding and levels of representation in Irish. In R. Hendrick (ed) *The Syntax and Semantics of Modern Celtic Languages*. Academic Press, New York.
- to appear. Clause Structure, Ellipsis and Proper Government in Irish. *Lingua*.
- & P. Sells. 1988: Control and A-Chains in Modern Irish. *Natural Language and Linguistic Theory* 6: 143-189.
- Miyagawa, S. 1989. Light Verbs and the Ergative Hypothesis. *Linguistic Inquiry* 20: 659-668.
- Munn, A. 1987. Coordinate Structure and X-Bar Theory. *McGill Working Papers in Linguistics*. Vol 4:121-140.
- Noonan, M. 1989. Operator licensing and the case of French interrogatives. In E. J. Fee & K. Hunt (eds). *Proceedings of WCCFL 8*. Stanford Linguistics Association.
- 1991. Case in Irish at Structure. To appear in *Cahiers Linguistiques de l'Université du Québec à Montréal*.
- 1992a. Statives, Perfectives and Accusativity: the importance of being HAVE. In Kural et al (eds). *Proceedings of WCCFL XI*. Stanford Linguistics Association.
- 1992b. Some stunning properties of Irish stative infinitival structures. Ms. McGill University, Montréal, QC.
- to appear. French complex inversion: its history, typology and reanalysis in Québec French. *McGill Working Papers in Linguistics* Vol 8.
- in preparation. Verb types, argument projection, and accusativity.
- to be written. Impersonal Passives in German: A Reply to Baker, Johnson, & Roberts. Ms. University College Dublin.
- O Siadhail, M. 1984. *Learning Irish*. Dublin Institute for Advanced Studies.

- 1989. *Modern Irish: Grammatical Structure and Dialect Variation*. Cambridge University Press. Cambridge.
- Ouhalla, J. 1990. Sentential negation, relativized minimality and the aspectual status of auxiliaries. *The Linguistic Review* 7:183-231.
- Pesetsky, D. 1989. The Earliness Principle. Abstract in *GLOW Newsletter*.
- Pollock, J.-Y. 1989. Verb Movement, Universal Grammar, and the Structure of IP. *Linguistic Inquiry* 20: 365-424.
- Pustejovsky, J. 1988. Event Semantic Structure. Ms., Brandeis University, Waltham, MA.
- Raposo, E. 1987. Case Theory and Infl-to-Comp: The inflected Infinitive in European Portuguese. *Linguistic Inquiry* 18:85-109.
- Riemsdijk, van, H. 1978. *A Case Study in Syntactic Markedness: The Binding Nature of Prepositional Phrases*. The Peter de Ridder Press, Lisse.
- Ritter, E. 1988. Existentials, Possessives, and Locatives in Hebrew. Ms., Université du Québec à Montréal.
- & S. Rosen 1990. Causative *have*. *NELS XXI*, Université du Québec à Montréal.
- Rizzi, L. 1986. Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17: 507-557.
- 1990. *Relativized Minimality*. MIT Press, Cambridge, MA.
- 1991. Residual Verb Second and the *Wh*-Criterion. Ms., Université de Genève.
- & I. Roberts. 1989. Complex Inversion in French. *Probus* 1.1:1-30.
- Roberge, Y. 1986. *The Syntactic Recoverability of Null Arguments*. Ph.D. diss., University of British Columbia, Vancouver.
- Roberts, I. 1987. *The Representation of Implicit and Dethematized Subjects*. Foris, Dordrecht.
- Rouveret, A. 1990. X-bar Theory, Minimality and Barrierhood in Welsh. In R. Hendrick (ed) *Syntax and Semantics 23: The Syntax of the Modern Celtic Languages*. Academic Press, New York.
- 1991. Functional Categories and Agreement. *The Linguistic Review* 8.
- & J.-R. Vergnaud. 1980. Specifying Reference to the Subject. *Linguistic Inquiry* 11: 97-203.
- Sadler, L. 1988. *Welsh Syntax: A Government-Binding Approach*. Croom Helm, London.

- Sells, P. 1984. *Syntax and Semantics of Resumptive Pronouns*. Ph.D. diss. University of Massachusetts, Amherst.
- Shaer, B. 1992. Tense, Time Reference, and the Eskimo Verb. Ms., McGill University, Montréal, QC.
- To appear. Idioms and Reference. *Proceedings of Idioms*, Tilburg University.
- Shlonsky, U. 1991. Resumptive pronouns as a last resort. Ms., Université du Québec à Montréal.
- Sportiche, D. *Structural Invariance and Symmetry in Syntax*. Ph.D. diss., MIT, Cambridge, MA.
- 1989. Conditions on silent cats. Ms., UCLA.
- 1990. Movement, Agreement and Case. Ms., UCLA.
- 1992. Clitics, Voice and Spec/Head Licensing. Abstract in the *GLOW Newsletter*.
- Stenson, N. 1981, *Studies in Irish Syntax*. Tuebingen.
- Stowell, T. 1989. Raising in Irish and the Projection Principle. *Natural Language and Linguistic Theory* 7:317-359.
- Suñer, M. 1986. On the Structure of the Spanish CP. Ms., Cornell University, Ithaca, NY.
- Tallerman, M. O. 1983. Island constraints in Welsh. *York Papers in Linguistics* 10: 197-204.
- Tenny, C. 1987. *Grammaticalizing Aspect and Affectedness*. PhD. diss., MIT, Cambridge, MA.
- Torrego, E. 1984. On Inversion in Spanish and Some of Its Effects. *Linguistic Inquiry* 15:103-129.
- Travis, L. 1984. Parameters and Effects of Word Order Variation. Ph.D. diss., MIT, Cambridge, MA.
- 1991a. Notes on Case and Expletives: a Discussion of Lasnik's Paper. In R. Freidin (ed). *Comparative Syntax: Princeton Workshop II*.
- 1991b. Derived Objects, Inner Aspect and the Structure of VP. *NELS* XXII.
- Tremblay, M. 1990. *Possession and Datives: Binary Branching from the Lexicon to Syntax*. Ph.D. diss., McGill University, Montréal, QC.
- Valois, D. & F. Dupuis. 1990. On the Status of (Verbal) Traces in French: the Case of Stylistic Inversion. Ms., UCLA and UQAM.

Vendler, Z. 1967. *Linguistics in Philosophy*. Cornell University Press, Ithaca, NY.

Zanuttini, R. 1990. On the Relevance of Tense for Sentential Negation. Paper presented at the conference on Time in Language. MIT, March 16-18.

I