

Tenseless Clauses
AspP and Subject Case-licensing

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TENSELESS CLAUSES

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Abstract

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In this thesis the inventory of clausal structures generally assumed in the Chomskian tradition i.e +/-finite (CP)IP and Small Clauses (SCs) (as in Stowell 1982) is extended to include clausal AspPs i.e aspectual projections without a TP layer, in which the aspectual property +/-telic (Garey 1957, Dahl 1981, Tenny 1987, Smith 1991) is shown to be the counterpart of +/-finite in the context of subject Case-licensing. Several anomalies arising in structures hitherto analysed as (CP)IPs (English Absolutes and Gerund complements to V, Irish SC adjuncts to CP, SC complements to a lexical head, and Irish 'non-finite' clauses), but identified here as AspPs, are resolved - in particular those relating to Case-licensing of the subject.

Previous analyses of the three main types of English Absolute not only fail to account fully for the subject Case-licensing facts, but, in overlooking the syntactic significance of aspectual properties of the predicates, miss the opportunity of providing a unified account of all three. Our analysis of English Gerund clauses as AspPs is supported by morphological and syntactic parallels with Absolutes. The distribution of lexical NP and PRO subjects in the Gerund is linked to a proposed syntactic reflex of its close temporal relationship with matrix V. Contra the general view that Irish SCs (both adjuncts and complements) are bare lexical projections with default Case for the subject (Chung and McCloskey 1987), we argue that the morpheme *agus*/and before a SC is not actually a conjunction but a subject Case-licensing aspect-marker inserted under Asp. Parallels are drawn between Irish 'non-finite' clauses and both English Gerund clauses and Scottish Gaelic 'non-finite' clauses which result in an alternative to default Case here also, and to an explanation for certain much-discussed word order asymmetries between Northern and Southern Irish.

Table of Contents

Chapter 1	Introduction	9
1.0	Introduction.....	9
1.1	Aspectual Properties of Predicates and Arguments.....	10
1.2	Motivation for Clausal AspPs.....	14
1.3	Terminology and Concepts.....	16
1.3.1	The Perfect.....	17
1.3.1.1	Smith (1991).....	17
1.3.2	Perfective.....	21
1.3.3	Endpoints.....	24
1.3.3.1	Endpoints and the telic versus a-telic distinction.....	24
1.3.3.2	Notion of Telicity assumed here and its relationship to the Imperfective/perfective opposition and to the ‘perfect’	28
1.4	Overview.....	31
Chapter 2	Absolutes, Aspect and Subject Case-licensing	33
2.0	Introduction.....	33
2.1	<i>NP+V-ing</i> Absolutes.....	37
2.1.1	Possible semantic restrictions on <i>NP+V-ing</i> Absolutes.....	38
2.2	Review of the Literature on <i>NP+V-ing</i> Absolutes.....	44
2.2.1	Reuland (1983).....	45
2.2.2	Abney (1987).....	46
2.2.3	Milsark (1988).....	49
2.2.4	Tunstall (1993).....	51
2.3	An Alternative Account of <i>NP+V-ing</i> Absolutes.....	54
2.3.1	Diesing (1992): the syntactic position of subjects and the individual versus stage-level distinction.....	55
2.3.2	Tense and <i>NP+V-ing</i> Absolutes.....	60
2.3.2.1	Enç (1987) on ‘Anchoring Conditions for Tense’	60
2.3.2.1.1	Complement clauses.....	61
2.3.2.1.2	Adjunct clauses and relative clauses.....	65
2.3.2.2	Contra anaphoric tense in <i>NP+V-ing</i> Absolutes.....	67

2.3.2.3	Temporal relationship between NP+V-ing Absolutes and the matrix clause.....	72
2.3.3	The distribution of ‘functional’ verbs in <i>NP+V-ing</i> Absolutes.....	76
2.3.3.1	Functional verbs as a raising category in <i>NP+V-ing</i> Absolutes.....	78
2.3.4	<i>NP+V-ing</i> Absolutes as AspP.....	81
2.3.4.1	Stage-level predicates.....	82
2.3.4.1.1	Subject Case-licensing and <i>ing</i>	87
2.3.4.2	Individual-level predicates.....	90
2.4	Prepositionally Augmented Absolutes.....	94
2.4.1	McCawley (1983).....	95
2.4.2	Napoli (1988).....	102
2.4.3	Prepositionally Augmented Absolutes: our analysis.....	107
2.4.3.1	Prepositionally augmented Absolutes and state-level predicates....	108
2.4.3.2	Complementary distribution of (obligatory) <i>with</i> and <i>have/be-ing</i> ..	111
2.4.3.3	(Obligatory) <i>with</i> as Asp-generated,+EPP and +ECM licenser.....	112
2.4.3.3.1	<i>With</i> before verbless Absolutes.....	112
2.4.3.3.2	<i>With</i> before <i>NP+V-ing</i> Absolutes	117
2.4.3.4	Bowers (1993) on the syntax of predication.....	120
2.5	Verbless Absolutes unaugmented by P.....	125
2.5.1	Functional structure.....	126
2.5.2	Adjectival versus verbal passive.....	129
2.5.3	The Situation Type of verbless Absolutes unaugmented by P.....	132
2.5.3.1	Unaugmented verbless Absolutes as non-stative events.....	133
2.5.3.2	Unaugmented verbless Absolutes as derived Achievements.....	141
2.5.3.3	Subject Case-licensing in unaugmented verbless Absolutes.....	149
2.6	Conclusion.....	151
Chapter 3	English Gerund Clause Complements, AspP and Subject Case-licensing.....	153
3.0	Introduction.....	153
3.1	The Category of Gerund Clauses and the Distribution of NP and PRO subjects.....	157
3.1.1	Gerunds and non-finite clauses (IP/CP).....	157
3.1.2	Distribution of lexical NP and PRO subjects in Gerund Clauses...	166
3.1.2.1	Stowell (1982)b on the tense of gerunds.....	166

3.2	Category of Gerund Clauses and Distribution of Lexical NP and PRO Subjects: review of the literature.....	171
3.2.1	<i>NP+V-ing</i> and <i>PRO-ing</i> as CP (Reuland 1983).....	171
3.2.2	<i>NP+V-ing</i> and <i>Pro-ing</i> as DP adjoined to IP (Abney 1987).....	176
3.2.3	<i>NP+V-ing</i> as IP and <i>PRO-ing</i> as a nominal (Milsark 1988).....	179
3.2.4	<i>NP+V-ing</i> as IP and <i>PRO-ing</i> as CP (Johnson 1988).....	182
3.3	Gerund Clauses as AspP.....	187
3.3.1	The role of matrix V in determining the tense of infinitivals and gerunds.....	189
3.3.2	Accounting for the temporal relationship between matrix V and its Gerund Clause complement in the syntax.....	194
3.3.2.1	Applying Stowell (1995) to the interpretation of tense in Gerund Clauses.....	195
3.3.2.2	Asp as a head with a Tense feature.....	199
3.4	Distribution of Lexical NP and PRO Subjects and the Tense Feature on Asp.....	201
3.5	A Second Structure for Perception Gerunds in addition to AspP.....	205
3.5.1	Arguments against Tunstall's DP+pseudo relative structure for perception gerunds.....	207
3.5.2	Gerund complements of true perception verbs.....	210
3.5.2.1	<i>Pro+V-ing</i> as a second object of <i>see</i>	211
3.5.2.1.1	Higginbotham (1983) on the logic of perceptual reports.....	212
3.5.2.2	Movement within Gerund Clauses and object control constructions.....	216
3.6	Conclusion.....	218
Chapter 4	Irish Small Clauses.....	221
4.0	Introduction.....	221
4.1	Default Case and the Distribution and Internal Structure of Irish Small Clauses.....	224
4.2	<i>Ag</i> as Asp in Irish SCs.....	228
4.2.1	Aspect-marking in Irish.....	228
4.2.2	Category of <i>ag</i> and <i>tar éis</i> in the literature.....	230
4.2.3	<i>Ag</i> belongs to the same category as <i>tar éis</i> and like <i>tar éis</i>	

	dominates a CFC.....	232
4.2.3.1	Stenson and Norville (1975).....	233
4.2.3.2	Ramchand (1996).....	237
4.3	<i>Agus</i> as Asp in Irish SCs.....	243
4.3.1	<i>Agus</i> before a SC: against a co-ordinating conjunction analysis.....	244
4.3.2	Contra analysing <i>agus</i> before a SC either as +/-Tense or as Comp..	252
4.3.2.1	<i>Agus</i> as +/-finite tense.....	252
4.3.2.2	<i>Agus</i> as C.....	261
4.3.3	<i>Agus</i> before a SC as Asp.....	261
4.3.3.1	Semantic content of non-co-ordinating <i>agus</i> before a SC.....	261
4.3.3.2	Comparing English Absolutes and Irish <i>agus</i> +SC phrases.....	264
4.3.3.3	<i>Agus</i> +SC complements of <i>tá</i> /be revisited.....	266
4.4	The Syntactic Position of Aspectual <i>Agus</i>	272
4.4.1	<i>Agus</i> +SC complements.....	272
4.4.2	<i>Agus</i> +SC adjuncts.....	276
4.5	Subject Case-licensing in SCs: two alternatives to default Case.....	280
4.5.1	M-merger (Adger 1996a) and the elimination of D features in Irish non-finite clauses.....	281
4.5.2	Advantages of M-merger versus checking in a standard checking configuration.....	283
4.5.3	Applying the theory to the data.....	288
4.5.4	SCs without <i>ag</i> or <i>agus</i>	294
4.5.5	Two subject Case-licensing mechanisms: spec-head and M-merger..	296
4.5.5.1	Simultaneous Case-licensing of a second subject via M-merger.....	297
4.5.5.2	Relationship between spec-head checking in AspP and M-merger...	300
4.6	Conclusion.....	302
Chapter 5	Irish Non-finite Clauses, Dialectal Variation and Subject Case-licensing.....	305
5.0	Introduction.....	305
5.1	The Structure of Irish Non-finite Clauses: differences between NI and SI.....	307

5.2	Pre-split Infl Approaches to Non-finite Clause Structure and the Particle <i>aL</i>	310
5.2.1	McCloskey (1980)a, Chung and McCloskey (1987) and McCloskey and Sells (1988): analysing <i>aL</i> +VN.....	311
5.2.2	<i>AL</i> as AgrO in NI non-finite clauses only.....	314
5.2.3	(<i>aL</i>)+VN in SI non-finite clauses as a nominal category.....	319
5.2.3.1	(<i>aL</i>)+VN in SI as N ⁰ : some consequences.....	321
5.3	Minimalist Approaches to Word Order and Case-licensing in Irish Non-finite Clauses.....	327
5.3.1	Bobaljik and Carnie (1996).....	328
5.3.2	Guilfoyle (1994).....	330
5.3.3	Noonan (1995).....	334
5.3.4	Carnie (1995).....	338
5.4	M-merger, <i>aL</i> and the Word Order Asymmetries between NI and SI non-finite clauses.....	342
5.4.1	<i>AL</i> and M-merger in SI.....	342
5.4.1.1	M-merger and <i>aL</i> in Adger (1996)b.....	343
5.4.2	Asymmetries between NI and SI.....	346
5.5	FP and Subject Case-licensing.....	349
5.5.1	Comparing Irish non-finite Clauses and English Gerund Clauses...	350
5.5.2	Comparing subject Case-licensing in SG and Irish non-finite clauses.....	352
5.5.2.1	Adger (1996)b and subject Case-licensing in SG and Irish.....	353
5.5.2.2	Contra (null) <i>bith</i> as equivalent of little <i>v</i>	355
5.5.2.3	An alternative account of <i>bith</i> and null <i>bith</i>	357
5.6	Conclusion.....	359
Chapter 6	Conclusion	361
6.0	Asp as a Subject Case-licensing Head in Tenseless Clauses: reviewing the advantages and assessing the theory.....	361
6.1	Data from English and Irish: summing up the problems and the solutions.....	361
6.2	Limitations.....	365
	References	369

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Chapter 1

Introduction

1.0 Introduction

The term clause, in the Chomskian tradition, has generally be used to refer to a predicate-argument structure which in the syntax has been projected into a finite IP/TP,¹ a non-finite IP/TP or a Small Clause (SC) (i.e. a full X-bar projection of a lexical category, without functional structure, as in Stowell 1982a). An obvious characteristic which distinguishes these clausal CFCs² from ones which are non-clausal (e.g. deverbal nominals like *the Romans' destruction of the city*) is the manner in which the subject argument is Case-licensed: in the former either in a spec-head relation with finite Infl/T, or from outside the clause in a pre-LF ECM configuration,³ in the latter in a spec-head relation with D (Abney 1987). In clauses, therefore, at least in Nominative Case systems, the only source of Case-licensing available to a (syntactic) subject from *within* its clause is generally assumed to be finite Infl/T.⁴ The hypothesis which will be defended in this thesis is that finite Infl/T is not in fact the only head which can Case-license a subject from within its clause - we will argue, within a Minimalist framework (Chomsky 1995), that in English and Irish there are clausal AspPs i.e. AspPs without a TP layer, in which the Asp head is the counterpart, in the context of subject Case-licensing, to +/-finite T in main and infinitival clauses respectively.

Evidence from English and Irish will be provided that, in clausal structures where tense is

¹ IP is used as a cover term for some combination of AgrSP and TP (see, for example, the accounts of Irish, English and French clause structure in Bobaljik and Carnie 1996).

² Complete Functional Complexes

³Default Case, which we consider in Chapters 3 and 4, is a third option, invoked by some for the subject of SCs and non-finite clauses in Irish (e.g. Chung and McCloskey 1987).

⁴In Ergative Case systems e.g. Inuit and Basque, the subject can also be Case-licensed in the same projection as the direct object of a transitive verb, where it receives Absolutive Case e.g. when V is unaccusative (see Laka 1993).

arguably not an independent syntactic projection, the aspectual property +/-telic (see Garey 1957, Comrie 1976, Dahl 1981, Tenny 1987, Smith 1991) of the predicate is what determines subject Case-licensing. In English, a parallel with respect to Case-licensing of the subject will be demonstrated between the temporal property of finiteness (occurring in the syntax as a +finite feature on T) found in main clauses and the aspectual property +telic in tenseless clauses. In both English and Irish, a principled pattern of strategies, relating to further aspectual (and temporal) distinctions between predicates, will be identified as necessary for subject Case-licensing when the predicate is a-telic .

We begin below by explaining how the AspP we envisage fits into accounts of the interface between cognitive structure and the syntax found in the literature, in so far as this concerns the aspectual properties of predicates and their arguments (1.1). This is followed by an account of our main motivation, empirical and theoretical, for positing clausal AspPs in English and Irish (1.2). We then discuss the meaning of three important terms relating to fundamental aspectual and tense distinctions found in languages generally which will be employed in the course of this thesis i.e ‘perfect’, ‘perfective’ and ‘telic’. The notion of telic which will be adopted here is specified and the relationship between this and the ‘perfect’ and ‘perfective’, respectively, is explained (1.3); finally, we provide a short account of the structure of the thesis as a whole (1.4).

1.1 Aspectual Properties of Predicates and Arguments: interface with the syntax

Two related but distinct accounts of the aspectual interface are of particular relevance here, and will be outlined briefly below: Tenny (1987;1994) and Borer (1994;1998). Our approach to the analysis of English and Irish tenseless clauses will be shown to be consistent with Tenny’s rather than Borer’s proposals.

Tenny puts forward the Aspectual Interface Hypothesis (AIH) which is that arguments are projected into specific positions within VP on the basis of aspectual information provided

in the lexicon. The aspectual information associated with arguments mapped into the positions of direct object (receiving structural accusative from V), object of preposition within VP (i.e. oblique argument), and [Spec,VP], respectively, are summarised below.

An argument which is an 'event-measurer' i.e. one which undergoes a specific kind of change, in the course of the event described by the predicate, is understood to be marked in the lexicon as a possible direct internal argument. The change associated with event-measurement derives from a property of the relevant argument which becomes a scale against which the event is measured out - for example, the spatial/material extent of the direct object in phrases like *perform a play*, *record the data* or *eat an apple*. In each case the event proceeds incrementally so that each subinterval of the event corresponds to a subpart of the object. When the event-measurer occurs with a transitive verb it is projected as direct object of V and Case-licensed accordingly - when V is intransitive (e.g. the subject of an unaccusative verb), it is projected into the same position but must move for Case-licensing to canonical subject position.

An argument which does not undergo change, but rather provides an endpoint for the event indirectly, by marking a point on the scale laid out by the direct argument, must be mapped to an oblique argument position within the VP e.g. the object of the preposition in *John pushed the cart to New York*. An event can be bounded, therefore, or 'delimited' - to use Tenny's expression - either by the direct argument, which also measures out the event, or by an oblique argument which only provides an endpoint.

Finally, the external argument mapped into [Spec,VP]: Tenny proposes that this is not in fact distinguished in the lexicon, although typically it is an agent - it is simply projected into this position if it does not have the aspectual properties associated with any of the VP internal positions.⁵

⁵Although Tenny rejects the notion of a mapping from the lexicon to the syntax based on a thematic hierarchy (e.g. the Uniformity of Theta Assignment Hypothesis in Baker 1988) she does not rule out thematic roles per se. She comments (p.307) that the type of the event participants may indeed be expressed by

Although the aspectual functions of arguments on Tenny's approach are not determined in independent Asp projections, morphological markers of Aspect such as the imperfective *be-ing* in English and *have-en* of the English 'perfect' construction are identified as possible Asp heads (p.214). In other words, in those cases where AspPs are considered likely, there is morphological evidence of a functional kind that they do actually exist (on a par with the evidence for Tense projections in languages generally).

Consider now how this compares with the proposals in Borer (1994,1998) who builds on certain aspects of Tenny's theory. On Borer's account the aspectual interpretation of arguments is assigned not in the VP but in the specifiers of two Aspectual Projections above VP. It is argued that there are no syntactic linking conventions in lexical entries associated with the projection of arguments, either involving theta roles in conjunction with a mapping hierarchy (e.g. the Uniformity of Theta Assignment Hypothesis in Baker 1988) or aspectual information of the kind proposed in Tenny's AIH.

Two Aspectual projections are posited - Asp_{OR} (OR=originator), and below this, Asp_{EM} (EM=event measurer). The arguments of the predicate are understood to be unordered both in the lexicon and in VP. The hierarchical representation required for the correct assignment of grammatical functions is achieved through movement out of the VP to the specifiers of the functional projections in which they are Case-licensed: nominative Case is obligatorily assigned (in [Spec, TP]), while Asp_{EM} assigns accusative Case optionally. Thus, when V is transitive, the object argument is projected into [Spec Asp_{EM}] and is accordingly interpreted as event measurer⁶ - it is also Case-licensed in this position; the subject is projected into [Spec, Asp_{OR}] and moves to [Spec, TP] for Case-licensing. When V is unaccusative, the single argument passes through [Spec Asp_{EM}] to [Spec, TP] for Case-licensing (recall that T must assign Case). With unergative verbs [Spec, Asp_{EM}] is not projected since the single argument is not an event measurer. The subject is projected out

something like the terms 'agent', 'patient' etc. but that the crucial information about thematic roles is aspectual information of the kind indicated above.

⁶If the verb is stative (e.g. *know*) the argument is not interpreted as an event-measurer. The EM feature on the Asp head is therefore specified as minus EM (i.e. Asp_{-EM}).

of the VP into [Spec, Asp_{OR}], and moves from there to [Spec,TP] for Case-licensing.⁷

One of the main advantages of Borer's theory is that variable behaviour verbs i.e. those displaying both unergative and unaccusative diagnostics (e.g. *run* in Italian) will not give rise to two distinct entries in the lexicon, one marking the verb as unergative, the other as unaccusative. Rather, a VP will be projected containing the verb and its unordered arguments. Whether the derivation which results is the one associated with unergative or unaccusative diagnostics will depend on the basic meaning of the verb together with the other material residing in the VP.⁸

Our analysis of tenseless clauses, as will become evident below, is consistent with Tenny's rather than Borer's approach for the following reason. For Borer a clause will always include aspectual projections, since on her theory the properties of these projections and the configurations which each is associated with express fundamental aspectual and grammatical distinctions (e.g. +/-event-measurer; subject versus object Case-licensing), without which the clause could not be correctly interpreted. In Tenny's theory, on the other hand, these distinctions are expressed in terms of the position occupied by the arguments within VP. However, although Tenny does not locate the aspectual functions associated with arguments in independent Asp projections, morphological markers of Aspect (e.g. imperfective *be-ing* and *have-en* of the 'perfect' construction in English), as noted above, are treated as possible Asp heads. This approach, in which the aspectual interface is represented where possible without recourse to independent functional structure, seems to us to be preferable to Borer's, particularly within a minimalist framework.

In analysing English and Irish tenseless clauses, therefore, we will assume that if there is

⁷See Arad (1996) for a similar approach to Borer's to the interface between the lexicon and the syntax.

⁸For example, if the verb *run* occurs with a directional PP (a 'delimiter') then the single argument will be an event-measurer, and an unaccusative derivation will result (Borer notes (p.32) that the existence of a delimiter implies the existence of a measure, but the reverse implication does not hold). If there is no delimiting PP then the interpretation of the subject can be either as a measure or a non-measure.

aspectual morphology in a given phrase type (e.g. *have-ing* or *be-ing*, or simply imperfective *ing* on a lexical verb in English Absolutes) then this constitutes evidence of an Asp Projection. If what is arguably the same phrase type (e.g. another Absolute) appears without an aspectual morpheme but, crucially, with a predicate obligatorily interpreted as perfective, then this will be taken as significant evidence that AspP is projected here also - in other words, the head in such cases will be analysed as a (non-overt) perfective counterpart to the overtly marked imperfective.⁹ Although a similar approach will generally be taken to the analysis of Irish ‘tenseless’ clauses as AspPs, in cases where aspectual morphology is not present, a parallel will be drawn with corresponding structures in Scottish Gaelic (SG), where it is present. We turn next to the main motivation for positing Clausal AspPs of the kind outlined above.

1.2 Motivation for Clausal AspPs: empirical and theoretical

The empirical motivation for positing clausal AspPs concerns a number of structures in English and Irish which, in our view, have been incorrectly labelled either IP/TP or SC in the literature - these are as follows: English Absolutes and gerund complements to V (i.e. *NP+V-ing*), both of which are generally treated as IPs; certain Irish adjunct CFCs and CFC complements to a lexical head, analysed in the literature as SCs; and finally, Irish ‘non-finite clauses’/‘verbal-noun clauses’ (broadly speaking the equivalent to English infinitival clauses) which are generally assumed to be IP/TPs.

In the case of English there have been three main negative consequences of the proposed mis-labelling which it will be our aim to rectify: firstly, accounts of the Case-licensing of lexical NP subjects in Absolutes which start from the assumption that they are (CP)IPs not only fail to account for certain revealing data which we will present below, but also cannot accommodate in a principled way the fact that lexical NP and PRO are not in complementary distribution in these phrases (cf. finite IP/TPs); secondly, in the case of the

⁹In fact, the terms +/-telic rather than +/-perfective will be used in such cases (see 1.3 below).

three main types of Absolutes which will be discussed, there has been little consensus as to the category of each one individually (IP/TP or SC), nor has any attempt been made to provide a unified account of all three - the role played by aspectual properties in determining the different configurations, which in our view provides the opportunity for such an account, has therefore been missed; thirdly, with gerund complements to V, also, there has been a failure to account convincingly for the distribution of lexical NP and PRO subjects and to take into account a number of facts, relating to the potential for syntactic movement, which are at variance with an IP/TP analysis.

In the case of Irish, the adjunct and complement CFCs which we will analyse as AspPs, as indicated above, have been labelled SCs in the literature. Since Case-licensing from outside these clauses via a pre-LF ECM configuration is not available, subject Case-licensing has generally been attributed to a default mechanism, also posited in Irish non-finite clauses for the same reason. By analysing both the SCs and the 'non-finite clauses' as AspPs, and invoking a feature checking mechanism called 'M-merger' already argued for in finite clauses in Adger (1996)a, we offer a more principled alternative to default Case and at the same time explain certain word order differences between NI and SI dialects.

Apart from the empirical advantages just outlined, there is also an important theoretical advantage to be gained from extending the inventory of clausal categories to include AspPs of the kind outlined above. If it can be demonstrated that telicity is to a tenseless clause what finiteness is to IP/TP in the context of subject Case-licensing, this will be a significant fact about the relationship between human cognition and language, as it applies to the syntactic projection of CFCs - this is because the semantic properties of finiteness and telicity will, in this respect, be shown to have comparable functions in mediating between cognitive and linguistic structures.

More specifically, matrix clauses i.e. those with a finite verb, have the potential to be grammatically independent, in the sense that they do not occur *obligatorily* either as an

argument of some lexical head (subject or complement), or as an adjunct - put simply, they can stand alone, as the term 'matrix' clause suggests.¹⁰ This characteristic distinguishes them from all other syntactic categories (including other categories of clause, such as infinitivals with a lexical subject, and our clausal AspPs) which must occur either as an argument of or an adjunct to another category. As arguments or adjuncts they are syntactically and grammatically dependent - for example, a nominal requires the presence of a functional category (e.g. +finite TP) to provide it with a checking domain for its Case feature, and an infinitival complement requires Case-licensing for its subject via ECM. Since a matrix clause is not grammatically dependent, in this sense, finiteness may be identified as a crucial factor in determining the potential for a CFC to occur independently of other categories i.e. to be 'free-standing'.

If our hypothesis is correct, namely, that telicity also has the potential to participate in the generation of clausal structures (AspPs) which do not depend on Case-licensing for a lexical subject from outside the clause (via a pre-LF ECM configuration), telicity will in this respect be shown to rank second to finiteness.

1.3 Terminology and Concepts

In this section we will explain the meanings of a number of terms, current in the literature, relating to fundamental aspectual and tense distinctions found in natural languages, which will be employed in the course of this thesis.

The first is the term 'perfect' (3.1) which refers to a category semantically and morphologically distinct from the one referred to by the second term, 'perfective', which will be considered subsequently (3.2). We then explain the notion of 'telic' which will be assumed in our syntactic account of English and Irish SCs and consider the relationship

¹⁰Of course matrix IPs, like IPs generally, are assumed to be dominated by a CP. However, the CP layer is not morphologically realised i.e. the IP is not actually selected by another lexical item.

between this and the ‘perfect’ and ‘perfective’ categories. (3.3).

1.3.1 The perfect

The purpose of this subsection is to identify the main temporal and aspectual properties of the ‘perfect’ construction in English which will be referred to in particular in the discussion of English Absolutes in Chapter 2.

In the English ‘perfect’ construction the predicate includes auxiliary *have* (tensed or untensed) and the past participle of the following verb, as in (1)a-e below:

- (1) a. Helen has been sick
 b. Henry had arrived
 c. Mary will have left
 d. Zoe has been talking
 e. John wants to have finished the book by tomorrow.

Smith (1991) provides a semantic account of the ‘perfect’ which we will draw on in Chapter 2 in analysing English Absolutes containing auxiliary *have* (and to a lesser extent in Chapter 4, in relation to certain Irish *agus*+SC adjuncts to CP). This is summarised below.

1.3.1.1 Smith (1991)

Smith proposes that perfect constructions generally convey the following related meanings: (a) that the situation precedes Reference Time;¹¹ (b) that the viewpoint is ‘resultant stative’; (c) that the subject has a special property due to participation in the situation.

¹¹Terms ‘situation’ and ‘Reference Time’ explained directly below.

Following Reichenbach (1947) Smith assumes that there are three times implicated in single sentences: Speech Time, Reference Time and Situation Time. Reference Time is the temporal standpoint of the sentence and is either the same as the speech time (e.g. in simple PRESENT), precedes the Speech Time (simple PAST) or follows it (simple FUTURE). Situation Time is the time of the event or state and in the simple tenses is simultaneous with the Reference time. In the ‘perfect’ construction, in contrast to this, Smith shows that the Situation Time precedes the Reference Time.¹²

To illustrate the point: (2)a below is a PRESENT perfect sentence, while (2)b is a simple PAST.¹³

- (2) a. Henry has arrived
 b. Henry arrived

The two sentences have the same truth conditions. However, in (2)a the event of ‘Henry arriving’ is viewed from the perspective of the present, while in (2)b the event is considered from the standpoint of the past. This difference can be explained in terms of distinct Reference Times in the two examples: in the first the Reference Time is PRESENT (i.e. the same as the Speech Time) and the Situation Time is PAST, while in the second both Reference Time and Situation Time are the same (i.e. prior to the Speech Time). The difference just outlined between the PRESENT perfect and the simple PAST can be illustrated on a time line as follows:¹⁴

- (3) a. SitT.....SP=RT
 b. SitT=RT.....SP

In examples like (2)a above the PRESENT perfect makes a situation part of the present, extending the present backward in what is known as the ‘Extended Now’ interpretation (McCoard 1974:Chapter 4). The event is prior to the Reference Time yet also part of a

¹²Except in examples where there is non-PAST adverbial modification (e.g. *Susan has seen Melvin this week*) in which case the event of seeing takes place within the interval of the Reference Time (specified here as the week coinciding with the Speech Time).

¹³Smith’s (12) a&b.

¹⁴Smith’s (13)a&b

general period of the present which is not limited to Speech Time. In the viewpoint of the PRESENT perfect, past situations are seen as continuing in effect into the present. In PAST perfect sentences like (1)b above, the Reference Time is PAST (i.e. anterior to the Speech Time) and the Situation Time is again anterior to the Reference Time, as illustrated below:

(4)SitT.....RTSP

Thus, in both the PRESENT perfect and the PAST perfect the Situation Time precedes the Reference Time. Consider next Smith's second proposal, referred to in (b) above, that 'perfect' constructions have a 'resultant stative' viewpoint.

Smith argues that perfect sentences have a stative value because they present a state of affairs with characteristics resulting from the prior situation. The following examples serve to illustrate the point:¹⁵

- (5) a. Susan has gone to Guangzhou
b. They have built a summer house
c. Elaine has danced with Bill
d. The stone has rolled down the hill
e. Helen has been sick

These sentences focus on a state which obtains in the present. In (5)a-d this state results from the occurrence of the non-stative situation/event denoted by the lexical projection. The situation/event referred to in each of these sentences (i.e. *going to Guangzhou*, *building a summer house* etc.) is presented as closed.¹⁶ Each closed situation/event, in turn, is associated with a state which continues into the Reference Time (i.e. the PRESENT, in these examples).¹⁷ In (5)e the circumstances are different as the situation/event denoted by the lexical projection is already a State at basic-level interpretation,¹⁸ and simply remains

¹⁵Smith's (20)a-e.

¹⁶Contrast *Susan is going to Guangzhou; they are building a summer house* etc. in which the events of *going to Guangzhou* and *building a summer house* etc. are presented as open.

¹⁷In a PAST perfect sentence the state resulting from a prior event/situation continues into a PAST Reference Time.

¹⁸Smith identifies five basic situation types: State, Activity, Accomplishment, Semelfactive and Achievement. A basic-level interpretation is the simplest and most direct association of a verb constellation (i.e. a verb and its arguments) with an idealized situation type. Derived situation types arise depending on other material residing in the sentence (e.g. *Mary believed in ghosts in an hour* is an Achievement derived from a

so when presented here in the ‘perfect’ construction.¹⁹

Smith notes that there is no requirement that the final states of the situations should be enduring, although enduring resultant states are clearly possible (e.g. in *John has died*) depending on the specific situation/event referred to.²⁰ This leads us to the third meaning associated by Smith with the perfect construction i.e. a special property is ascribed to the subject, due to participation in the situation ((c) above). This property, unlike the final states just referred to, is understood to be enduring.

It is proposed that perfect sentences ascribe to their subjects a property which results from their participation in the prior situation. For example, if a perfect sentence asserts that at some time a person has laughed, danced, or built a summer house the property of having done these things is ascribed to that person.²¹ This ‘participant property’ holds whether the situation/event which leads to the resultant state is of the sort which has an enduring result or not, as in (6)a versus (6)b below:

- (6) a. The fender has been dented (by the knock)
- b. John has been fired (by his boss)

In (6)a the state which results from the situation of the knock denting the fender is enduring; the fender may also be said to have the (enduring) property of ‘having been

State).

¹⁹ The situation/event of Helen being sick in (5e) can be interpreted either as open or closed i.e. either Helen is understood to be still sick at Speech Time or she has recovered.

²⁰ In Chinese, unlike in English, there is a perfective morpheme (*guo*) which asserts that a state of affairs referred to no longer obtains. For example, (i) below means *I was sick* but this state of affairs no longer obtains:

- (i) Wo bing guo
 I sick GUO

‘I was sick’ (no longer sick with the same sickness)

²¹ There is a pragmatic felicity requirement on the use of the perfect: the subject must be in a position to receive the participant property at the time of utterance. Smith cites the well-known infelicitous example *Einstein has lived at Princeton*. If this sentence is uttered in 2001 i.e. at a time when Einstein is no longer alive, it is infelicitous because Einstein cannot bear the participant property ascribed to him at Reference Time (the PRESENT in this example).

dented'. In (6)b, on the other hand, the state which results from the event of John's boss firing him is not of a type which is enduring. John, nevertheless, has the enduring property of 'having been fired'.

To conclude on the term 'perfect' as it applies to the 'perfect construction' in English: the three related meanings proposed by Smith and outlined above provide a plausible and useful foundation for the account of Absolutes with auxiliary *have* which we will put forward in Chapter 2. We turn now to the term 'perfective' - again using Smith (1991) as our main reference point.

1.3.2 Perfective

The perfective/imperfective opposition can be described in general terms as distinguishing between events viewed as closed and events viewed as open or ongoing. Smith characterises the perfective viewpoint as one which presents a situation as a single whole i.e. with both an initial and a final endpoint, as illustrated in the following schema (the slashes indicate the part of the situation schema which is focussed by the viewpoint):

(7) I F
 ////////////////////

In contrast to this, the imperfective viewpoint presents part of a situation, giving no information about endpoints.²² The general schema proposed for the imperfective is as follows:²³

²²This is not to say that imperfective sentences *lack* information about endpoints. What is meant here is simply that the part of the event which is focussed in the imperfective does not include endpoints. In other words, it is the imperfective viewpoint which does not include information about endpoints, not the sentence as a whole. The issue of different kinds of endpoint and how these relate to telicity is addressed in detail, in subsection 3.3 below.

²³The dots indicate internal stages of a situation; the slashes as explained above indicate the interval actually presented in the sentence

(8) I.....F

The perfective in English is often called ‘simple aspect’ because it is signalled by the simple form of the main verb. Smith puts forward arguments (set out directly below) for analysing each of the examples in (9)a-d below as perfective.^{24,25}

- (9) a. Lily swam in the pond (Activity)
b. Mrs Ramsey wrote a letter (Accomplishment)
c. Lily coughed (Semelfactive)
d. Mr Ramsey reached the lighthouse (Achievement)

(10)a&b below are examples of imperfectives (signalled by the auxiliary *be+ing*):²⁶

- (10) a. Kelly was singing
b. Ross was climbing a tree

The tests used by Smith to demonstrate the closed viewpoint of examples like (9)a-d are as follows: firstly, they are shown to be incompatible with an assertion that the event referred to continued.²⁷

- (11) a. # Lily swam in the pond and she may still be swimming
b. #Mrs Ramsey wrote a letter and she may still be writing it

This contrasts with the imperfective viewpoint which is perfectly compatible with an assertion that the event continued:

- (12) a. Lily was swimming in the pond and she may still be swimming there
b. Mrs Ramsey was writing a letter and she may still be writing it

Secondly, Smith demonstrates that if a sentence presents a closed situation, as in (13)

²⁴Smith’s (19)a-d.

²⁵Activities (e.g. *run (around, all over)*), Accomplishments (e.g. *run a mile; paint a picture*) and Achievements (e.g. *recognise; win (the race)*) are three of the four classes of verbal Aspect introduced by Vendler (Vendler 1967). The fourth class identified by Vendler was States (e.g. *love; want*). Smith refers to Activities, Accomplishments, Achievements and States as ‘situation types’(see footnote 18 above). Semelfactives (e.g. *knock*) are the fifth of her five Situation Types.

²⁶Activities and Accomplishments have internal stages (unlike States, and unlike the instantaneous events Achievements and Semelfactives).

²⁷Smith’s (20a&b).

below, questions about its continuation are not reasonable, unlike with open situations which freely accept such questions.²⁸

- (13) Martin walked to school
#Did he get there?
- (14) Martin was walking to school
Did he get there?

The third test concerns endpoints. As already indicated above, Smith proposes that the interval focussed by the perfective has endpoints (see (7) above), while the interval focussed by the imperfective does not. She supports the claim that the imperfective viewpoint, unlike the perfective, does not have an endpoint by modifying main clauses of each type with a *when* clause as in (15)a&b, respectively, below and contrasting them in terms of interpretation:

- (15) a. Mary was swimming when the bell rang
b. Mary swam when the bell rang

In (15)a Mary's swimming is already in progress when the bell rings. (15)b, on the other hand, has a sequential reading i.e one in which the swimming only begins at the point when the bell rings. Smith proposes that the imperfective does not allow a sequential reading because, unlike the perfective, it does not have an initial endpoint.

In the next subsection we examine the notion '*telos/end*' in relation to the aspectual meaning of a sentence and explain how the term '*telic*' will be used here in our syntactic account of English and Irish SCs as AspPs.²⁹

²⁸Smith's (14) and (15).

²⁹The aspectual property of telicity has already been invoked in the syntactic literature in analyses of variable behaviour verbs (see reference to Borer 1994,1998 above), where it has been shown to be an important factor in understanding differences between unaccusative and unergative derivations - in the former the subject of a monoargumental verb is an event-measurer, and therefore the event as a whole is interpreted as telic, while in the latter the subject is not an event-measurer and so the event is interpreted as a-telic.

1.3.3 Endpoints

We begin by explaining how different concepts of ‘endpoint’ relate to the definitions of telic versus a-telic events found in the literature (i.e Dahl 1981; Krifka 1989;1992; Smith 1991) (3.1). We then specify the notion of telicity which will be assumed here and consider the relationship between this and the ‘perfect’ and ‘perfective’ discussed above (3.2).

1.3.3.1 Endpoints and the telic versus a-telic distinction

In classifying events as +/-telic Dahl (1981) distinguishes between a sentence which includes an indicator of an ‘actual terminal point’ versus one which includes an indicator of a ‘potential terminal point’ (i.e one which is merely intended or probable) as in (16)a versus (16)b below:³⁰

- (16) a. I wrote a letter
 b. I was writing a letter

In (17), in contrast to this, neither a ‘potential terminal point’ nor an ‘actual terminal point’ is indicated:

- (17) I was writing

Of the three examples just cited, therefore, only (16)a is analysed by Dahl as telic because

³⁰Dahl notes that indicators of ‘potential’ and ‘actual’ terminal points correspond to the distinction between what has been referred to in the literature as the T and P properties, respectively. The following definitions of the ‘T property’ are cited (p.81): a situation, process, action, *etc.* or the verb, verb phrase, sentence, *etc* expressing this situation, *etc.* has the T property iff ‘it leads up to a well-defined point behind which the process cannot continue’(Comrie 1976); or iff ‘it is directed toward attaining a goal or limit at which the action exhausts itself and passes into something else’ (Andersson 1972). The P property is defined by Dahl as follows: ‘A situation, process, action, *etc.* has the P property iff ‘it has the T property and the goal, limit, or terminal point in question is or is claimed to be actually reached’.

this is the only one with an 'actual terminal point'.³¹

In Krifka (1989;1992) the key factor in determining whether an 'event type' is +/-telic rests on the distinction between the notion 'terminal point' and 'set terminal point' (STP).³² Krifka observes that all events in the world i.e all concrete event tokens, terminate at some point in time and therefore have a terminal point. In describing 'event types' it becomes necessary to distinguish between those which have a STP from those which do not.³³ Telic 'event types' have a STP, a-telic event types do not. For example, the event type *run three miles* has a STP i.e the point at which the runner reaches the end of three miles. It has a STP because there are no sub-events of *run three miles* which are also events of *run three miles*. In contrast to this, an event of *running* does not have a STP since *running* does indeed contain sub-events of *running*.³⁴ The approach is formalised as follows: every event *e* is associated with a 'time chain' or temporal trace representing the individuated conceptual moments of the event in correct temporal order. A 'temporal trace function' τ then maps every event onto its temporal duration as in (18):

³¹This approach differs from the one which Dahl associates with the Western tradition generally (emanating from Aristotle) in which the main distinction recognised is between (16)a&b versus (17) i.e between events which have a 'T' property and those which do not (see definitions of T property in footnote 30 above). Dahl notes (p.88) that Comrie's first example of a sentence which describes a telic situation is *John is making a chair*. He observes further (p.81) that the Western tradition is different from the view dominating the Slavic world in which two main distinctions are drawn: (i) +/- T property (as in the Western tradition); and (ii) imperfective versus perfective. In the Slavic tradition, therefore, not only are (16)a&b to be distinguished from (17) but, in addition to this, (16)a is to be distinguished from the other two examples since the former is perfective while the latter are imperfectives.

³²The distinction between telic and a-telic events is made at the level of event predicates or types rather than simply between 'events'.

³³The following formal definition of 'terminal point' as it applies to 'event types' is proposed (Krifka 1989:91): an event *e* of type ϕ is said to have a terminal point *t* relative to ϕ iff *t* is the final temporal point of *e* and there are no *e'* of type ϕ with either $e' \subset_{\mathbb{E}} e$ or $e \subset_{\mathbb{E}} e'$ which have an earlier or a later final temporal point; otherwise *e* has no terminal point relative to ϕ .

³⁴Krifka shows that there is a correspondence between a-telic versus telic predicates in the verbal domain and cumulative versus quantised predicates in the nominal domain. A cumulative NP like *beer* denotes something without clear limitation, just as the a-telic event type *run* has no clear limitation. A quantized NP like *a book*, on the other hand, denotes an object with precise limits, just as a telic event type *run three miles* denotes an event with precise limits. Krifka shows that the properties 'cumulative' and 'quantized' apply equally to the domain of objects and events: the predicate of objects *apples* is a cumulative predicate in the sense that if two things which count as apples are joined together the result is also *apples*. Similarly, the predicate of events *running* (a-telic) is also *cumulative* because two *runnings* joined together are themselves also *running*. In contrast to this, if two things which each count as *a book* are joined together the result is not also *a book*. Similarly, if two events of *run three miles* (telic) are joined together this does not result in *run three miles*.



$$(18) \quad \gamma(e) = t_0, t_1, \dots, t_{n-1}, t_n$$

The temporal trace associated with a telic event has a set final time t_f (STP) while the temporal trace associated with an a-telic event does not.

Smith (1991) takes yet another approach. It is based on her proposal that the aspectual meaning of a sentence is a composite of ‘situation type’ and ‘viewpoint’ and that it is the ‘situation type’ of the event which determines whether the sentence describes a telic or an a-telic event.

Five basic situation types are assumed - States (e.g. *know*), Activities (e.g. *run*), Accomplishments (e.g. *build a house*), Semelfactives (e.g. *cough*) and Achievements (e.g. *arrive*). These are understood to differ with regard to the three properties telicity, dynamism and durativity. Of the five situation types, only Accomplishments and Achievements are considered to have the property +telic; semelfactives are treated as -telic, and States as neither +/- telic on the grounds that these are a non-dynamic situation type.

The notion ‘natural endpoint’ is fundamental to Smith’s identification both of the ‘situation type’ of an event and its +/-telic property. An event with a ‘natural endpoint’ is one which has a goal or outcome which is intrinsic to the event. Accomplishments and Achievements have a ‘natural endpoint’ (e.g. *Mary walked to school* or *we reached the top*). For this reason they qualify as +telic situation types on Smith’s system. In contrast to this, an Activity is simply a process (e.g. *Mary walked in the park*). It has an ‘arbitrary’ as distinct from a ‘natural’ endpoint and is therefore a-telic.

The ‘viewpoint’ is signalled by a grammatical morpheme (usually on the verb or in the verb phrase). Three main types are identified: perfective, imperfective, and neutral. The perfective focusses on the situation as a whole, the imperfective on part of a situation and

the neutral viewpoint is flexible (see 1.3.2 above). (18) below serves to illustrate how ‘situation type’ and ‘view point’ are understood to combine in conveying the aspectual meaning of a sentence:

(19) Mary was walking to school

The ‘situation type’ of the event described in this sentence is ‘Accomplishment’. Because it has a ‘natural endpoint’ (i.e. the point at which Mary reaches the school) the sentence is understood to describe a telic event. The ‘viewpoint’ is imperfective because only part of the event of *walk to school* is focussed. The notion that the event in this example has a ‘natural endpoint’ (making it +telic), which is not included in the part of the event which is focussed, is captured in the following temporal schema showing the final endpoint with the subscript ‘N’ signifying ‘natural endpoint’ (the slashes indicate the part of the event which is focussed):³⁵

(20) I.....//.....F_N

An a-telic imperfective i.e. one in which the situation type has no ‘natural endpoint’ (e.g. *Mary is walking in the park*) has the following temporal schema showing the final endpoint with the subscript ‘Arb’ signifying ‘arbitrary endpoint’.³⁶

(21) I.....//.....Arb

To sum up on the different concepts of ‘endpoint’ employed in the literature to define the +/- telic distinction among events: Dahl’s ‘actual terminal point’ is to some extent similar to Krifka’s STP since both are distinct from a ‘natural endpoint’ (where ‘natural endpoint’ is a goal or well-defined point towards which a process/action is directed). On Dahl’s and Krifka’s approach therefore a sentence like (19) above describes an a-telic event because it lacks an ‘actual terminal point’ or a STP. On Smith’s system, on the other hand, (19) is telic because the basic ‘situation type’ i.e. Accomplishment, is telic.

³⁵Smith’s (8).

³⁶Smith’s (25).

1.3.3.2 Notion of telicity assumed here and its relationship to the imperfective/perfective opposition and to the ‘perfect’

The relationship between ‘natural endpoint’ and telicity which will be assumed here is consistent with the first approach referred to above (i.e Dahl’s and Krifka’s), rather than with the second.³⁷ That is to say, an English imperfective sentence (signalled by the auxiliary *be+ing*) will be described by us as a-telic regardless of whether the event described has a ‘natural endpoint’. (10)a&b above, therefore, will both be treated as a-telic. More specifically, the progressive marker *ing* on the verb of these examples will be analysed as the overt realisation of an a-telic Asp head in the syntax.

Consider now what the semantic and syntactic status of the progressive marker *ing* might be when it occurs in stative imperfectives like the following:

- (22) a. John was lying in the garden
b. The picture is hanging on the wall
c. Mary is resembling her mother today

The property +/-telic is generally considered in the literature not to hold of states. For example, as already noted above, of the five situation types identified in Smith (1991) States are given no value with regard to the property of telicity. The assumption that telicity is not relevant to states generally is reasonable given that states generally are non-dynamic i.e. there are no differentiated moments involved. They may endure over stretches of time but they do not involve change (see Vendler 1967; Mourelatos 1981; Smith 1991). Since they do not involve change then there can be no process leading to an endpoint or outcome of any kind. We cannot talk, for example, of a ‘potential’ endpoint, an ‘actual’ endpoint, or a STP (where these are as defined above).

³⁷It should be emphasised that there is no intention here to suggest that Krifka’s and Dahl’s treatment of Aspect are the same. We refer only to a similarity in the relationship assumed between the notion ‘natural endpoint’ and telicity.

However, sentences like (22)a-c differ from states generally because the progressive is typically associated with non-stative events. Smith (1991) comments on examples of this kind in a manner which will prove useful in our analysis of certain English Absolutes in Chapter 2. She notes that the states in these sentences are in fact presented as dynamic events with the connotations of events generally. Such sentences not only suggest activity but also the temporary quality that is characteristic of an event rather than a State. Smith proposes that the imperfective viewpoint imposes on these states the stage property characteristic of events. Using her terminology here, there is a shift from the 'basic-level' interpretation of the verb constellation as a State to one in which it is interpreted as a 'derived' Activity.³⁸ We hold with this view of (20)a-c and treat the events described therefore as Activities resulting from a marked aspectual choice on the part of the speaker (i.e the choice to use *be-ing* in a stative verb phrase) It follows that we can assign the events concerned a value for the property of telicity (on our definition): since there is no endpoint of the appropriate kind involved (e.g a STP), this is -telic.³⁹

The relationship between telicity and the imperfective specified above will be an important one in our analysis of certain English and Irish SCs as AspPs. The relationship between telicity and the perfective (see 1.3.2 above) is less so, firstly, because the structures we are concerned with are not perfectives of the kind described above i.e they do not have tensed verbs in 'simple aspect', and secondly, because those structures which might nevertheless be characterised as 'perfective', can be equally well analysed as telic, as will be demonstrated in due course. Some general observations on the relationship between telicity and perfectivity are nonetheless in order here.

As indicated in 1.3.2 above the perfective/imperfective opposition is generally described as distinguishing between completed actions and actions in progress i.e those with an endpoint and those without. Whether a sentence which is perfective also qualifies as telic

³⁸Recall from footnote 18 above that a basic-level interpretation is the simplest and most direct association of a verb constellation (i.e. a verb and its arguments) with an idealized situation type. For example *build a house* is an accomplishment on a basic-level interpretation and is therefore +telic. *John builds houses*, on the other hand, in which the count noun is replaced by a mass noun, is interpreted as a-telic.

³⁹On Smith's system also these qualify as a-telic (because they have no 'natural endpoint').

depends on the notion of ‘endpoint’ employed to define telic. For example, on Smith’s definition, perfectives can be +/-telic, as in (23)a versus (23)b respectively below:

- (23) a. Mary walked in the park (-telic)
b. Mary walked to school (+telic)

(23)a is perfective but not telic because it has an ‘arbitrary’ as distinct from a ‘natural’ endpoint. Recall that a telic event on Smith’s definition must have a ‘natural’ endpoint, as in (23)b (the ‘arbitrary’ endpoint of (23)a conveys termination, while the natural endpoint of (23)b conveys completion). On the other hand, when a telic event is defined as one which has a STP then a perfective sentence can be described as +telic even when it does not have a ‘natural’ endpoint of the kind in (23)b above. For example, Russian has a set of perfectivising verbal prefixes which can be said to mark telicity directly. Tenny (1987:57) comments that these prefixes convert verbs describing non-delimited (a-telic) events into verbs describing delimited (telic) events, without imparting new lexical meaning:^{40, 41}

- (24) a. *kurit* (smoke)
b. *vykurit* (finish smoking)

Thus, when the definition of telic does not require that the terminal point of a telic event should be a ‘natural’ endpoint of the kind in (23)b, perfectives like (24)a&b are also telic.⁴²

Finally, we come to the relationship between telicity and the ‘perfect’: two conclusions reached in 1.3.1 above, on the properties of the ‘perfect’ construction in English, are of particular relevance to our account of telicity as it applies to the Absolutes containing

⁴⁰Tenny cites these examples (p.58) from Brecht (1984).

⁴¹Perfectivising prefixes may also alter the meaning of the verb slightly, in such a way that the verb describes a delimited event:

- (i) a. *čítat* (*read*)
b. *perečítat* (*reread*)
c. *začítat* (*read out*)

⁴²Dahl (1981:81) comments that the terms ‘telic’ and ‘perfective’(among others such as ‘bounded’) have typically been used to refer to a similar aspectual distinction.

auxiliary *have* which will be analysed in Chapter 2. The first is that in the ‘perfect’ construction the Situation Time precedes the Reference Time; the second, that perfect sentences have a ‘resultant stative’ viewpoint i.e they have a stative value because they present a state of affairs with characteristics resulting from the prior situation. We will assume that the application of auxiliary *have* to a lexical CFC in English Absolutes (e.g *Food having been flown in from Britain....*) gives the event described a stative value, as proposed in Smith (1991) for the perfect construction generally. It will be argued that the further application of *ing* to auxiliary *have* gives the (derived) stative event a dynamic property of the kind referred to in relation to statives like (22)a-c above. The event described can therefore be attributed a value for the property +/-telic in spite of the fact that telicity is not generally considered to be relevant to States.

To sum up on the notion of ‘telic’ assumed here and how this relates to the imperfective/perfective opposition and, more importantly for our purposes, to the ‘perfect’ construction: a telic event on our understanding will be one which has a STP. An imperfective sentence does not have a STP and therefore will be analysed here as a-telic. A ‘perfect’ sentence in English will be treated as a type of stative (following the account of the ‘perfect’ construction in Smith 1991). It will be argued that in English Absolutes containing auxiliary *have* a stative event acquires a value for telicity when the aspectual morpheme *ing* is affixed to it i.e the Absolute acquires the property -telic.

1.4 Overview

The organisation of the thesis is as follows: in Chapter 2 a unified syntactic analysis of three types of English Absolute is proposed. It is argued that, in all three, certain aspectual distinctions among the predicates i.e. individual-versus stage-level (Carlson 1988) and telic versus a-telic, have syntactic correlates which determine how the subject is Case-licensed. In Chapter 3 we examine the close temporal relationship between matrix V and its gerund complement (i.e. *NP+V-ing*) and demonstrate a link between the distribution of lexical NP and PRO subjects and the temporal interpretation of the gerund based on the

assumption that these, like English *NP+V-ing* Absolutes, are clausal AspPs. In Chapter 4 a principled alternative to the notion of default Case for the subject of certain Irish ‘SC’ complements to a lexical head and ‘SC’ adjuncts to CP is proposed in which a morpheme traditionally referred to as a co-ordinating conjunction is analysed as an a-telic Asp head and the SC as a whole as a clausal AspP. In Chapter 5 a comparison is drawn between Irish ‘non-finite’ clauses and English gerund complements to V which leads to an account of word-order variation between Northern Irish and Southern Irish in which the non-finite clause in both cases is an AspP. Further comparisons with non-finite clauses in SG make an alternative to default Case for the subject available which is consistent with the account of subject Case-licensing in English Gerund Clauses proposed in Chapter 3.

Chapter 2

Absolutes, Aspect and Subject Case-licensing

2.0 Introduction

As noted in Chapter 1, the three distinct types of clausal structure recognised in the literature generally, within the Chomskian tradition, are: i) finite IP/TP; ii) non-finite IP/TP (e.g. infinitivals); and iii) SCs.¹ The main objective of this chapter will be to argue that evidence from subject Case-licensing in English Absolutes indicates that the inventory of clausal structures should be extended to include clausal AspPs (without a TP layer); it will be proposed that the head of this projection has the syntactic function both of checking certain aspectual features associated with the predicate of the Absolute, and of conditionally Case-licensing the subject in [Spec, AspP].

(1)a-c, respectively, below, show the three, relatively common types of Absolute which will be analysed here (see Stump 1985 for others):

- (1) a. The students avoided the syntax module, **the new lecturer being a notorious ogre**²
- b. **With two professors on sabbatical**,³the course must be postponed
- c. **The tub empty now**, Sue got the shivers⁴

In previous accounts, unlike the one which will be proposed here, no attempt has been made to provide a unified analysis of all three; typically, in fact, they have been discussed

¹CP dominates IP/TP in (i), and in (ii) also when the subject is PRO (i.e. with control complements).

²A pronominal subject here can be either nominative or accusative e.g. *The new students avoided John, he/him being a confirmed genius*. When the subject is nominative the traditional term is *Nominative Absolute*.

³A predicate with *V-ing* is also possible here.

⁴This is example (68) from Napoli (1988).

independently: for example, Reuland (1983), Abney (1987) and Tunstall (1993) all have something to say about the first kind only i.e. *NP+V-ing* (references to Absolutes in the case of the latter two being only brief); McCawley (1983), on the other hand, is concerned only with the prepositionally augmented ones, as in (1)b; the third kind i.e. both verbless and unaugmented by P, has been largely ignored in the syntactic literature. An exception to the general situation described above is found in Napoli (1988) who proposes an account of all three; even she, however, draws a fundamental distinction between *NP+V-ing* and the other two, analysing the former, only, as IP.

In addition to the fact that the above Absolutes have been discussed separately in the literature, there has also not been complete agreement as to the category of each individually. For example, although the general assumption has been that *NP+V-ing* involves an IP layer (e.g. Reuland 1983, Abney 1987, Tunstall 1993), contra what we will propose below, the prepositionally augmented Absolute in (1)b has been treated as an IP/S complement of P by McCawley, but as a non-constituent in Napoli (1988).

Moreover, there has been little discussion of subject Case-licensing in any of the above-mentioned accounts. In fact, all fail patently when it comes to explaining a striking asymmetry with regard to subject Case-licensing in *NP+V-ing* which will be identified in 2.1 and addressed in detail in 2.2 and 2.3.

In short, similarities between the three Absolutes in (1)a-c above, of a kind which would make a genuinely unified analysis possible, have not been recognised in the literature thus far, nor has any principled explanation been provided of how subjects are Case-licensed.

In providing an alternative, unified analysis, here, we will reject the assumption that there is a IP/TP layer in any of the above, and build on certain observations concerning the semantic properties of the Absolutes in (1)b&c to argue that they, like the Absolute in (1)a with a progressive participle as predicate, are AspPs. Subject Case-licensing will be shown

to function differently in each example depending on a combination of the following three factors: i) whether the predicate is individual or stage-level (Carlson 1980); ii) whether the Asp head has the feature +/- telic; iii) if the Asp head is - telic, whether it is morphologically realised (as *ing*) or not. Parallels will be drawn between the principles governing subject Case-licensing in IP/TP and the proposed AspP, based on (i)-(iii).

The Chapter is structured as follows:

In Section 1 certain ungrammatical *NP+V-ing* Absolutes are presented as a challenge to previous accounts of this construction in the literature. The possibility of attributing their ungrammaticality to some semantic restriction on the predicates, related, for example, to the fact that they are non-stative, or have the property of being stage-level is explored and ultimately rejected, in favour of the proposal that the subjects have failed to be Case-licensed. The relationship between our syntactic account of Absolutes and another possible semantic approach, in which the focus would be on the logical relationship between the Absolute and the main clause, is also explained.

In Section 2 four accounts of subject Case-licensing in *NP+V-ing* phrases are reviewed: Reuland (1983), Abney (1987), Milsark (1988) and Tunstall (1993). Reuland, Abney and Tunstall, all of whom make specific reference to *NP+V-ing* Absolutes, incorrectly predict that the examples presented in the previous section will be grammatical; when Milsark's analysis of *NP+V-ing* phrases is applied to Absolutes, it becomes clear that this, too, cannot account for the relevant data.

In Section 3 evidence is provided that *NP+V-ing* Absolutes are not IPs, but AspPs (without a TP layer), contra Reuland (1983), Abney (1987), Milsark (1988) and Napoli (1988); auxiliary *have* and copular *be* (with *ing* affixed) are shown to be obligatory only in stage-level environments. It is proposed that these verbs have an EPP feature which causes the lexical NP subject of stage-level predicates to move from their base position in [Spec, VP] (see Diesing's *Mapping Hypothesis*, Diesing 1992) to the specifiers of the projections which generate *have* and copular *be*. Subject Case-licensing takes place following subsequent movement to the specifier of a second functional projection dominating *have* and copular *be*. Evidence is provided that this is an AspP overtly realised as *ing* and

bearing the feature ‘-telic’. It is argued that the semantic function of this Asp head is to indicate that there is a temporal overlap between the event of the matrix clause and the event described by the Absolute. The lack of complementarity in the distribution of lexical NP and PRO subjects in these Absolutes is also discussed.

In Section 4 it is argued that P(*NP+V-ing*) Absolutes (where P is obligatory), like the Absolutes discussed in Section 3, also consist of two functional projections dominating a lexical projection: the lower functional projection is an AspP generating the progressive marker *ing*. All obligatory P(*NP+V-ing*) phrases are shown to have stage-level predicates. The second functional projection is also an AspP: it generates (obligatory) *with* which subsequently moves to C from where it Case-licenses the subject in a pre-LF ECM configuration. The semantic function of (obligatory) *with* is shown to be the same as that of the higher Asp head posited in the *NP+V-ing* Absolutes of Section 3 (generating -telic *ing*), namely, to indicate that the event of the Absolute overlaps temporally with the event of the matrix clause. It is argued that this Asp head in P(*NP+V-ing*) Absolutes also has the feature -telic. The observation that (obligatory) *with* is in complementary distribution with auxiliary *have* and copular *be* leads to the further proposal that *with*, like auxiliary *have* in *NP+V-ing* Absolutes, has an EPP feature which causes the subject to move out of its base position in the lexical projection (Diesing 1992) into the specifier of the higher AspP (via the lower [Spec, AspP]) where it is Case-licensed by *with* in a (pre-LF) ECM configuration. A similar analysis is then proposed for prepositionally augmented verbless absolutes.

In Section 5 an analysis of Absolutes which are not augmented by P, and have either passive participles or non-participial predicates, is proposed. Evidence is first provided that the subject of these Absolutes is in the specifier of a functional projection at Spell-out and that it has been inserted into this position directly, like the subject of individual-level predicates (assuming Diesing’s *Mapping Hypothesis*, Diesing 1999). Following ideas in Smith (1991) it is then argued that the events described by these Absolutes have the Situation Type ‘derived Achievement’. This leads to the proposal that syntactically they consist of a lexical projection containing a stative predicate-argument structure which in turn is dominated by AspP with a +telic head. The Asp head posited is then analysed as the positive counterpart of the overtly realised a-telic Asp head (*ing*) proposed in *NP+V-ing* Absolutes (Section 3) and P(*NP+V-ing*) Absolutes (Section 4). A parallel is drawn

with +finite T in matrix clauses: +finiteT also Case-licenses a subject in its specifier and the subject, as in unaugmented verbless Absolutes, can be inserted directly into this position (assuming Diesing's *Mapping Hypothesis*). Further parallels between the two are also identified in terms of the distribution of lexical NP versus PRO subjects.

Section 6 is the Conclusion

2.1 *NP+V-ing* Absolutes

We begin this section with an illustration of an asymmetry in *NP+V-ing* Absolutes which cannot easily be explained by previous accounts of subject Case-licensing in *NP+V-ing* structures e.g. Reuland (1983), Abney (1987), Milsark (1988) and Tunstall (1993)((2a) is repeated):⁵

- (2) a. The students avoided the syntax module, **the new lecturer being a notorious ogre**
- b. **Food parcels having been flown in from Britain**, the aid workers could begin to feed the starving refugees
- (3) a. ***Ann writing a letter**, Bill has nothing to do
- b. ***Ann arriving later**, there will be four guests for dinner

All the highlighted phrases above appear to be instances of the same syntactic structure i.e. they are CFCs, adjoined to CP, with *V-ing* heading the verb phrase. The fact that PRO in place of a DP subject produces a grammatical result suggests strongly that Case is at issue in the ungrammatical examples:

- (4) a. **PRO writing a letter (in his study)**, Bill suddenly remembered his dental appointment
- b. **PRO arriving (an hour) later**, Mary found the party in full swing

⁵All four discuss *NP+V-ing* structures generally (i.e. those usually referred to as *Acc-ing gerunds* in the literature, and occurring in a range of syntactic positions). Milsark (1988) is the only one not to refer specifically to this phrase-type in Absolutes. Note that we avoid using the term *Acc-ing* for Absolutes of the verbal kind, preferring instead the term *NP+V-ing*, simply because the pronominal subject of an Absolute can be either Accusative or Nominative.

Notice, furthermore, that inserting the preposition *with* before the lexical subject in (3)a&b also produces grammaticality:

- (5) a. **With Ann writing a letter**, Bill has nothing to do
b. **With Ann arriving later**, there will be four guests for dinner

Since *with* arguably can Case-license an NP in the specifier of its complement, the evidence again points towards an account of (3)a&b based on failure of subject Case-licensing.

Before demonstrating (in 2.2) that the relevant accounts of subject Case-licensing found in the literature fail to provide an answer to the different grammatical status of (2)a&b versus (3)a&b, the possibility that there may be semantic restrictions on the type of predicates which can occur in Absolutes must be eliminated. Below, therefore, we rule out a purely semantic solution to the problem.

2.1.1 Possible semantic restrictions on *NP+V-ing* Absolutes

The fact that the predicates in (2)a&b are stative, while those in (3)a&b are non-stative,⁶ raises the possibility that non-statives might be prohibited in *NP+V-ing* Absolutes. Evidence against this comes from further ungrammatical examples like (6)a&b below, noticeably resembling (3)a&b in terms of overt structure, but crucially, having a stative predicate:

⁶Vendler (1967) introduced a four-part classification of verbal aspect: *statives*, *activities*, *accomplishments* and *achievements*. Statives, like activities, are ongoing in time, but certain tests distinguish the two e.g. a stative, unlike an activity, typically (though not categorically), does not occur in the progressive form. Thus, *like* and *fear* are stative while *write* and *arrive* are not, as illustrated in the following:

- (i) a. *John is liking the film
b. *John is fearing the dark
(ii) a. John is writing the letter
b. John is arriving

- (6) a. *John owning the mercedes, he could not be short of money
- b. *?Mary understanding the problem, the plans could proceed

Assuming that the most desirable outcome of our investigation into the unacceptable status of (3)a&b and (6)a&b would be for both to receive a similar explanation, any hypothetical requirement that the predicate must be stative cannot provide the answer, since it would obviously only account for (3)a&b. Moreover, there are actually grammatical Absolutes in which the predicate is arguably non-stative. Consider, for example, the one in (7) below:

- (7) **Students generally spending more money on drink than their parents, it wouldn't be easy to convince them to become teetotallers**

The verb *spend* must surely be treated as non-stative, given that (unlike a stative) it denotes an activity when it occurs in progressive form (e.g. *John is spending a lot of money*). Statives, by contrast, either reject the progressive altogether or, if they accept it, the result is a state-denoting predicate, not an activity (e.g. *John is standing in the garden*). In view of examples like (7), therefore, Absolutes of the kind in (3)a&b cannot simply be ruled out on the basis of the non-stativity of their predicates.⁷

A second avenue to explore is the 'stage-level' versus 'individual-level' distinction proposed by Carlson (1980) and illustrated in (8)a&b and (9)a&b, respectively, below:

- (8) a. John is available
- b. Fido bit the postman
- (9) a. Fido is intelligent
- b. Dogs are four-legged

The predicates in (8)a&b express highly temporal, accidental properties of the subject, so that the sentences as a whole receive 'event' readings, while those in (9)a&b express more

⁷In fact, the addition of the generic adverb converts the non-stative predicate into an habitual. In the terminology of Smith (1991), therefore, the basic-level situation type of the Absolute in (7) would be non-stative, while the derived situation type would be stative (on the assumption that habituals, since they hold of patterns of events rather than specific situations, are semantically stative). Our point is simply that the crucial factor in determining the grammaticality of Absolutes is not stative-versus non-stative but rather, as will be argued below, generic versus non-generic.

inherent, essential properties of the subject, resulting in 'characteristic' or 'generic' readings.

Returning now to *NP+V-ing* Absolutes, it would be convenient if all the grammatical examples had individual-level predicates and all the ungrammatical ones had stage-level predicates. Indeed, the predicates of the acceptable Absolutes in (2)a and (7) are both clearly individual-level, while those of the unacceptable ones in (3)a&b are both stage-level. The Absolutes in the remaining examples, (2)b and (6)a&b, however, argue against any such generalisation: firstly, the predicates of the latter (*owning* and *understanding*) are best described as being ambiguous between individual-level and stage-level,⁸ yet they produce ungrammaticality; secondly, as will be demonstrated directly below, the predicate in (2)b (repeated here as (10)) is stage-level, and therefore incorrectly predicted to be ungrammatical:

- (10) **Food parcels having been flown in from Britain**, the aid workers could begin to feed the starving refugees

Notice that unlike all the others predicates discussed so far, the one in (10) is passive i.e. the subject originates as direct object of V and moves (presumably for Case) to subject position; the underlying active clause i.e. *they have flown food parcels in from Britain* is unambiguously stage-level; we show, now, that this property is retained under passivisation.⁹

⁸For example, (i)a below versus (i)b, and (ii)a versus (ii)b:

- (i) a. John owns the mercedes
b. John owns the mercedes now since he's just won the bet but it will be mine again in an hour
(ii) a. John understands mathematics
b. John understands the problem (at last) (i.e. he's got it!)

⁹We will conclude that the presence of passive *be* does not alter the stage-level property of this predicate. It is worth noting the claim in Stump (1985) that applying progressive *be* to a stage-level predicate can yield an individual-level predicate: Stump's diagnostic environment for stage-level predicates is as follows:

- (i) Mary saw John -----

Since *walking home* can appear in the gap of (i) it is identified as a stage-level predicate. *be/is walking home* by contrast cannot appear here and so it is treated as an individual-level predicate. With regard to passive *be*, Stump assumes, like us, that it can combine either with a stage-level predicate to yield a stage-level predicate or with an individual-level predicate to yield an individual-level predicate, as illustrated respectively in the following:

Diesing (1992) provides us with a useful diagnostic for distinguishing between individual and stage-level predicates, in her modification of a similar proposal in Carlson (1980).¹⁰ Carlson claims that a bare plural subject interpreted as generic, only, always has an individual-level predicate, while a bare plural subject interpreted as existential, only, always has a stage-level predicate i.e. the two are in complementary distribution. For example, the subject in (11)a below (with an individual-level predicate) can only be interpreted to mean approximately 'most doctors' or 'doctors generally' while the one in (11)b (with a stage-level predicate) can only be interpreted to mean 'some doctors':

- (11) a. Doctors are intelligent
 b. Doctors are available

Diesing agrees with Carlson that when the predicate is individual-level the bare plural must be interpreted as generic and that when it is stage-level the bare plural receives an existential reading.¹¹ In fact, for the present purpose, this fundamental distinction is all that is needed. However, she differs from Carlson in proposing that there is an additional, less obvious interpretation for examples like (11)b in which the bare plural has a generic reading also.¹² Diesing's approach will be adopted here because, as will become clear further below, there are Absolutes with stage-level predicates in which a bare plural subject can actually be interpreted either way (the existential reading, being the preferred one).

Returning now to the passive Absolute in (10), and drawing on Diesing's observations vis-à-vis the interpretation of bare plurals, we have a diagnostic for the semantic status of the predicate as stage-level or individual-level: if a bare plural is substituted for the referring

-
- (i) Dogs were knocked over by John (Stage-level)
 (ii) Dogs are loved by Harry (Individual-level)

¹⁰A detailed account of Diesing's theory will be provided in 2.3.1. For the present we are concerned only with introducing and explaining the bare plural diagnostic for distinguishing between the two predicate types.

¹¹The corresponding examples in Diesing (1988:17-18) are:

- (i) Violists are intelligent
 (ii) Firemen are available

¹²This second, generic reading can be paraphrased as follows: *it is a necessary property of doctors that they be available for treating the sick*. A third reading is also proposed for (11b): *Generally, there are doctors available*. In this case a generic operator binds times instead of both times and doctors, as in the second reading just cited.

NP subject and is interpreted existentially, then the predicate must be stage-level.¹³ As (12), below, shows, this is exactly what we find:

- (12) **Food parcels having been flown in from Britain**, the aid workers could begin to feed the starving refugees

Further examples of the same kind support this conclusion:

- (13) a. **Promises having been made**, the warring parties left
b. **Letters having been sent to the parents**, the head expected an improvement in the boys' behaviour
c. **Girls already having been expelled**, the head was reluctant to pursue the matter
d. **Biscuits having been provided by the management**, the party did not cost much to organise

The subjects of the Absolutes in (12) and (13)a-d above are most obviously interpreted to mean *some* NP rather than *all/most* NP (although a generic reading is also possible). A contrast can be drawn, in this respect, with the bare plural subjects of the Absolutes in the following, which are interpreted as generic *only* (note that these are not *NP+V-ing* Absolutes, but belong to the type illustrated in (1)c above):¹⁴

- (14) a. **Parcels delivered**, the postman returned to the depot
b. **Flowers arranged**, Frieda began to paint
c. **Biscuits eaten**, the children started on the sandwiches
d. **Tables polished**, the dining-room looked transformed

Our point is, therefore, that the predicate in *NP+V-ing* Absolutes like (10) above is stage-level on the basis of the bare plural diagnostic. Since it is also grammatical we cannot rule out (3)a&b on the grounds of some generalisation prohibiting stage-level predicates in this kind of Absolute.

¹³Recall that on Diesing's account a generic reading for the bare plural is also possible but not preferred. The availability of this second reading may be less obvious to some speakers.

¹⁴Only the paraphrases in the (a)examples below are accurate:

- (i) a. All parcels delivered, the postman returned to the depot
b. #Having delivered some parcels, the postman returned to the depot
(ii) a. All the flowers arranged, Frieda began to paint
b. # Having arranged some flowers, Frieda began to paint

Moreover, there are other examples of *NP+V-ing* Absolutes which have stage-level predicates:

- (15) a. **Floods being imminent**, the emergency services were on red alert
b. **Food parcels being on the way**, the crowds would soon be fed

Notice that the bare plural subjects in (15)a&b are both interpreted existentially. Our conclusion thus far therefore is that the *NP+V-ing* Absolutes in (3)a&b are not ungrammatical simply because the predicates are non-stative or because they have the semantic property of being stage-level.

We have demonstrated thus far that a semantic approach to the Absolutes in (3)&b of the kind just outlined would not be promising, and have indicated that we favour a syntactic analysis of the facts (focussing on the issue of Case for the subject). However, this does not preclude the possibility that these Absolutes can also be described and understood from a semantic perspective (see Stump 1985). For example, one could hypothesise that the eventualities denoted by Absolutes generally (i.e not just *NP+V-ing*) are subject to certain semantic and temporal constraints which are not satisfied by (3)a&b above. A likely possibility here would be that the Absolute must provide an appropriate eventuality for ‘backgrounding’ or ‘temporally enclosing’ the matrix event. A preliminary consideration of the data would suggest that perhaps progressives (both states and non-states) and resultant states are among the eventualities which fall into this category of ‘appropriate background’. Since substituting a PRO subject for the lexical NP subject of the Absolute makes the semantic relationship with the matrix clause more explicit (the matrix subject controls the PRO) the fact that substitution of this kind is generally acceptable would follow.

In fact a semantic approach of this kind is, in an important sense, closely related to the syntactic approach which will be taken here. This is because in the course of our analysis we will be examining the properties and distribution of those very elements in the Absolute which arguably indicate the hypothetical ‘appropriate backgrounds’ just referred to i.e

progressive *be-ing*, the perfect auxiliary *have*, passive participles and result-denoting predicates generally.¹⁵ In doing so our aim will be to show that a significant interface with the syntax is involved here i.e that these elements which arguably have the semantic function of establishing an appropriate background are associated in the syntax with the projection of aspectual heads which reflect that function - hence the proposal that Absolutes are clausal AspPs.

We turn next to a review of the literature on *NP+V-ing* clauses as applied specifically to the analysis of Absolutes.

2.2 Review of the Literature on *NP+V-ing* Absolutes

In considering the extent to which the literature on *NP+V-ing* clauses can explain asymmetries of the kind discussed in the previous section, we should first point out that although the semantic interpretation of Absolutes generally has already been examined in considerable detail (in Stump 1985) syntactic accounts of *NP+V-ing* Absolutes are typically neither detailed nor extensive. What has tended to happen is that non-adjunct *NP+V-ing* has been analysed (e.g. *Acc-ing* complements to V or *Acc-ing* as the subject of a clause) and then either the Absolute is relatively briefly mentioned as another instance of the same phrase type, as in Reuland (1983) and Abney (1987), or one is simply left to apply a theory designed specifically to explain gerunds in selected environments to a non-selected environment such as that of Absolutes (e.g. Milsark 1988).

What is striking about Reuland (1983), Abney (1987), Milsark (1988) and Tunstall (1993), reviewed below, is that none can accommodate examples both of the kind in (2)a&b and (3)a&b. A fundamental problem with all of these analyses, with the exception of Tunstall's, is the assumption that *NP+V-ing* is an IP/S at some level (Tunstall merely

¹⁵Also *with* before prepositionally augmented verbless Absolutes.

implies they are IPs but does not state this explicitly). Evidence that this is incorrect will be postponed until 2.3.2, however, and we will focus, in the review below, on showing how the above-mentioned accounts make the wrong predictions about examples like (2)a&b and (3)a&b (their potential to account for *NP+V-ing* in complement position will be considered in Chapter 3).

2.2.1 Reuland (1983)

In order to explain Reuland's account of Absolutes we must begin by considering briefly what he has to say about *NP+V-ing* in complement position since this provides the foundation of his analysis. All the phrases highlighted in the following are treated as tenseless CPs (his S' dominating tenseless S), with *ing* under Infl:¹⁶

- (16) a. Rudy didn't remember **John reading the letter**
 b. Rudy didn't remember **PRO reading the letter**
 c. **Them trying to sing a song** was just too horrible
 d. Roddy tried to avoid Elaine, **he being a confirmed bachelor**
 e. The minister left the pulpit, without **anything having happened**

Ing is identified as a nominal element called *AG*¹⁷ (also understood to be present under Infl in tensed IPs) which must receive Case in order for the highlighted phrase to be identifiable.¹⁸ In a tensed IP the +finite feature of the head assigns nominative Case to AG which is then transmitted to the subject. However, in the phrases in (16)a-e above, AG cannot receive Case from a +finite tense feature (these being 'tenseless') and so instead, it is governed and Case-marked from outside i.e. in (16)a by the matrix verb *remember*,¹⁹ in (16)c by matrix finite Infl and in (16)e by the preposition *without* under Comp.²⁰ Once

¹⁶Examples taken from Reuland (1983) pp.112,126&130.

¹⁷Following ideas in Rizzi (1979).

¹⁸The highlighted phrases in (16a-e) are referred to as *nominal-ing* as distinct from *participial-ing*, *poss-ing*, *adjectival-ing*, *progressive-ing* and the straightforward *nominaliser-ing*.

¹⁹Reuland proposes that V is subcategorised for IP(*ing*), not CP, because C is empty at DS. It is therefore able to govern and assign Case to *ing* under Infl across the intervening CP layer.

²⁰To account for the fact that in (16c) the embedded pronominal subject is accusative Case rather than the nominative typically associated with Infl, Reuland makes a distinction between Abstract Case and Morphological Case so that the subject here is understood to have Abstract nominative Case but morphological

ing has received Case it then transmits it to the embedded subject in its specifier. In (16)b, where the embedded subject is PRO, and therefore should not be governed and Case-marked like an overt subject, Reuland proposes that *ing* affix hops onto V in the syntax, leaving a trace under Infl and therefore PRO ungoverned.

Consider, now, example (16)d, containing an Absolute like the one in our (1)a above. Since the *ing* under the embedded Infl is an adjunct here, it is not governed by matrix Infl, nor is there any other potential governor available to it. Reuland (p.128) therefore stipulates the following: *ing has nominative Case if ungoverned*. This, in the present view, is a significant flaw in the theory, not only because it is introduced for the sole purpose of accounting for subject Case-licensing in the Absolute, but, more importantly, because it seems not to be correct.

If, for example, it is applied to our Absolutes in (3)a&b above, then the embedded subjects should be assigned nominative case. However, since these adjuncts are not grammatical, we conclude that Case-licensing has not actually taken place. A more articulated and explanatory account of Absolutes than is found in Reuland (1983), therefore, is clearly called for.

2.2.2 Abney (1987)

Abney treats gerundive *ing* as a nominaliser which takes a verbal projection and converts it into a nominal category. Three basic types of gerund are posited, the first of these being the one identified with Absolutes: *Acc-ing*, *Poss-ing*, and *Ing-of*. All three are treated as DPs at their outermost level but distinct in their internal structure. This is because the *ing* is understood to adjoin to the verbal projection at different points in each case. In order to

accusative.

convey as clear a picture as possible of Abney's approach, below we give a brief overview of the three structures.

In the case of *Acc-ing*, illustrated in (17) below (cp. 16a,c & e above),²¹ an IP (dominating VP) is already constructed before the nominaliser *ing* appears:

(17) John singing the Marseillaise

The subject has been assigned 'common case' by a verbal AGR in I, the presence of which is understood to be the default case, not the exception (a non-finite IP is treated as the marked case, with *to* located under I and therefore no verbal AGR to assign Case to the subject).

IP has the features {+F-N}, *ing* is {+N}.²² When the latter adjoins to IP, as in (17), it converts it to {+F+N} making the IP a DP, but not a noun (which would be {-F +N}). This DP does not project its own structure i.e. it does not have a D⁰ or a D' level, but merely substitutes another feature into IP.²³

With *Poss-ing*, illustrated in (18),²⁴ the *ing* adjoins to VP (which has the features {-F-N}) instead of IP:

²¹Abney's (238a).

²²F stands for functional.

²³Evidence relating to Case-specification and specificity effects is cited in support of the claim that this DP does not have a D: the subject of *NP+V-ing* is accusative case (or nominative in some Absolutes), while the subject of *poss-ing* gerunds is genitive, assigned via a non-overt AGR in D. This suggests that D is absent in *NP+V-ing* gerunds. *Poss-ing*, unlike *NP+V-ing*, also shows specificity effects under extraction, as illustrated in (i)a versus (i)b below (compare noun phrases in (ii)). Abney locates the source of this effect in the D node:

- (i) a. *The city that we remember [his describing t]
b. The city that we remember [him describing t]
(ii) a. *Who did you see his picture of t?
b. Who did you see a picture of t?

²⁴Abney's (238b).

(18) John's singing the Marseillaise

As a result, the VP converts to {-F+N} i.e. it becomes a nominal so that a D⁰ and a D' are projected and a subject in genitive Case is licensed.

Finally, the *Of-ing* gerund, as illustrated in (19):²⁵

(19) John's singing of the Marseillaise

Here, *ing* adjoins to V⁰ in the morphology so that a noun is created before a VP can be constructed. *Of* must therefore be inserted before the direct object, since N is not subcategorised for an NP complement. As with *Poss-ing*, a genitive subject is licensed by the D which takes an NP sister.

Consider, now, the extent to which the above three-way classification of gerunds can accommodate Absolutes, particularly the ungrammatical ones in (3)a&b: as noted above, Abney assumes Absolutes are instances of *Acc-ing* (p.227), which means that a verbal AGR in I must assign Case to the specifier before *ing* adjoins to IP. Clearly, as in Reuland (1983), the ungrammatical examples are wrongly predicted to be grammatical, as the embedded subjects should be Case-licensed by the proposed verbal AGR in I. Furthermore, if, as is claimed on p.169, the *Acc-ing* clause must appear in a Case-marked position, then Absolutes must be an exception, since there is no Case-marker available.

In short, Abney's claim that *NP+V-ing* Absolutes have an IP layer and that I has a verbal AGR by default which Case-marks [Spec, IP], does not appear to stand up, in the light of the evidence presented.

²⁵Abney's (238c).

2.2.3 Milsark (1988)

Milsark's analysis of the *ing* affix is developed with *Poss-ing* (e.g. 'Bill's playing the Browning') and *PRO+V-ing* (e.g. 'PRO playing the Browning') in mind rather than what we have been referring to as *NP+V-ing* (e.g. 'John singing the Marseillaise' and Absolutes). Although references to *NP+V-ing* phrases are limited in terms of detailed discussion they are nevertheless explicit.²⁶ Below is a brief overview of Milsark's approach to *ing* and subject Case-licensing in gerunds (first complements, then adjuncts), followed by some conclusions on the potential of this account to be extended to explain subject Case-licensing in Absolutes.

Milsark proposes that the affix *ing* is category neutral and inserted into the syntax under Infl. Because it must affix to a verb, movement of the verb from V to I takes place at PF. The resulting lexical item *V+ing* then undergoes 'recategorisation' to whatever category is required by the syntax. For example, if the IP containing *ing* is a complement to V, as is the case for the highlighted phrase in (20) below,²⁷ the matrix V has an accusative Case to assign and so the syntax may be said to require an NP sister for V:²⁸

(20) John enjoyed **Bill's playing the Browning**

Bill playing the Browning is therefore recategorised at PF from IP to NP (following affixation of V to I) so that the matrix verb can assign its Case. The highlighted phrase is

²⁶In particular Milsark's footnote 14.

²⁷Milsark's (10b). Note that a structure of this kind is not treated as an IP at any point in its derivation in Abney (1987).

²⁸Milsark proposes that the essential content of Case theory can be given by the statement in (i), which he calls the *Strong Case Filter* (SCF):

(i) [+N]-[+Case]

According to the SCF the presence of a +N feature (on an X⁰ constituent with phonetic content) means that Case-licensing is required for that constituent while the presence of a Case feature (again on an X⁰ constituent with phonetic content) means that a +N feature must be available in the appropriate structural position to function as the Case-licensed element. Thus, matrix V in (20) must assign its Case and the embedded subject must be assigned Case.

accordingly assigned accusative Case (by V) and the embedded subject genitive Case by N (like the NP occurring in the specifier of nominals generally).²⁹ At SS and LF, therefore, the complement of matrix V in (20) is a non-finite IP, while at PF it is a nominal.^{30,31} Gerunds which recategorise to NP, as in (20), are referred to as ‘nominal gerunds’.

‘Verbal gerunds’, by contrast, occur in adjoined positions i.e. non-cased positions, as illustrated in (21) below.³² They are not, therefore, required to recategorise to NP.³³

(21) It's pleasant **walking around the city in December**

When *ing* is affixed to V at PF in structures like (21) vacuous recategorisation is understood to take place so that the feature specification of the gerund remains [+V-N].

Although, as noted in 2.1 above, Milsark does not specifically discuss Absolutes, he does refer to ‘adsentential modifiers’, giving the highlighted phrase in the following as an example³⁴:

(22) **Walking in the door**, I spotted a green cat

The adjunct in (22) is a ‘verbal gerund’ i.e. there is no Case-feature in the derivation requiring to be assigned to it and so recategorisation (following *ing* affixation) is vacuous. The absence of such a Case-feature creates no problem for the subject of the adjunct since this is PRO.³⁵ However, in an Absolute, the subject is overt and therefore does need to be Case-marked. Since there is no Case feature present in the derivation which could be

²⁹Milsark refers to NPs rather than DPs therefore N is understood to assign genitive Case to an NP in its specifier

³⁰The fact that the subject of the gerund is ungoverned and uncase-marked at LF is irrelevant since Milsark's *Strong Case filter* (see footnote 28 above) applies at PF.

³¹Note that a PRO subject in a gerund of this kind, is treated as an exception to the PRO Theorem in Chomsky (1981), on this analysis, since it will be Case-marked in the same way as an overt subject.

³²Milsark's (17a).

³³See footnote (28) above.

³⁴His(27b).

³⁵Note that on this analysis PRO is only cased in nominal gerunds.

assigned to the subject (ECM via a selecting verb or preposition not being available),³⁶ this theory of subject Case-licensing in gerunds fails to capture the facts relating to Absolutes. Crucially, it incorrectly rules out our grammatical examples in (2)a&b,³⁷ while at the same time correctly ruling out the ungrammatical ones in (3)a&b.

2.2.4 Tunstall (1993)

Although the main objective of Tunstall (1993) is to provide an account of Case relations in *ing* phrases occurring with perception verbs (e.g. complement of V, as in 'Wayne saw [Mona stealing oranges]' and VP adjuncts, as in 'Harriet caught Mona [PRO stealing oranges]'), the issue of subject Case-licensing in *NP+V-ing* Absolutes is also addressed. The focus of this review will be on assessing the potential of Tunstall's analysis of Absolutes to account for the asymmetry in (2)a&b and (3)a&b above, an examination of her treatment of *ing* phrases (with perception verbs) in other positions being postponed until Chapter 3 (section 3.5).

First, a brief outline of Tunstall's theory of Case relations, which involves both *Case-Identification* (i.e. I-Case) and *Case-Licensing* (i.e. L-Case): L-Case corresponds to the familiar relation of Case-licensing in GB theory (i.e. it is assigned under government by, or in a spec-head relation with, a local head), while I-Case refers to the identification (by a lexical head only) of the Case assigned e.g. nominative, accusative etc. I-Case, unlike L-Case, can percolate from the head of a phrase to its specifier and complements. How exactly this works can be illustrated with the following example:

(23) Wayne saw **Mona stealing oranges**

³⁶Milsark points out in a footnote that in gerunds with accusative Case subjects i.e. in *Acc-ing* gerund complements to V, Case-marking may come about via ECM from matrix V (instead of via recategorisation to nominal, yielding genitive Case).

³⁷ There are only two ways in which a lexical NP subject can be Case-licensed in the gerund on Milsark's theory, neither of which applies here: i) via recategorisation to a nominal (which yields genitive Case only); ii) via ECM, yielding accusative.

The embedded subject *Mona* is Case-licensed by *ing* (under Asp) via the spec-head relation. *Saw* Case-identifies its AspP sister (as accusative) and that I-Case percolates to the head, and from there to *Mona*, in the specifier. The claim that *ing* is an (obligatory) Case-licenser makes available an explanation of the asymmetry illustrated in (24)a&b below, in which a perception gerund complement of *see* can move out of the domain of *see*, since it carries along its own Case-licenser, while the bare infinitive (BI) complement of the same verb cannot:³⁸

- (24) a. What we saw was **Beth kissing/?*kiss Hal** in public
 b. It was **Beth kissing/*kiss Hal** that we heard last night

In BI complements the subject is understood to get Case from the matrix verb via ECM (i.e. both L-Case and I-Case). When the BI complements in (24)a&b move out of the domain of *see* and *heard* respectively, then *Beth* is left without L-Case since the copula does not assign L-Case and there is no other Case-licenser available. This problem does not arise for the subject of the gerund complements because of the presence of the Case-licenser *ing* which moves with the subject in the cleft. Case-identification for *Beth* in the gerund is also possible, in spite of the fact that it moves in the cleft: the I-Case feature from *see* is passed from the trace of AspP to AspP itself and from there it percolates to the subject.

Consider, now, how this approach to Case-licensing is applied by Tunstall to Absolutes: the categorial status of *ing* in this construction is not specified (recall that it is identified as Asp in perception verb contexts), but we are told that like the *ing* occurring in the gerund complement of perception verbs, this one also obligatorily assigns L-Case to the subject. The absence in Absolutes of a lexical head to assign I-Case leads to the proposal that, depending on whether the subject is Nominative or Accusative, Case is either identified contextually or by default respectively. Contextually identified I-Case means that the subject of the Absolute is treated as an external argument of the kind occurring in a finite clause where an I-Case feature is also not available (hence nominative Case).

³⁸Tunstall's (44a)&(44b).

Default Case in English is assumed to be accusative. The two types are illustrated, respectively, in the highlighted pronominals below:³⁹

- (25) ..as we strode along, **I** doing my best to keep pace with him, and **him** reading aloud from some political economist or other, he would drag out a handful of nuts and munch them

Turning now to our ungrammatical examples in (3)a&b above, Tunstall's analysis predicts that the embedded subjects should be Case-licensed by *ing* and Case-identified either by default or contextually. Since, as argued above, they are not Case-licensed, this cannot be correct.

Summing up the review of the literature on *NP+V-ing* Absolutes provided above, the main problem seems to be that in each case a theory primarily designed to account for *NP+V-ing* in complement position produces very poor results when applied to *NP+V-ing* Absolutes: on the basis of Reuland (1983) (3)a&b are wrongly predicted to be grammatical, while a special stipulation is needed to account for the acceptability of (2)a&b. The same, approximately, can be said of Abney (1987), although no stipulation is actually admitted.⁴⁰ If Tunstall (1993) is adopted, (2)a&b are accounted for (with minimum stipulation i.e. only vis-à-vis I-Case) but crucially (3)a&b are incorrectly allowed. The reverse is true of Milsark (1988) whose theory, when applied to Absolutes, accounts for (3)a&b but not (2)a&b.

Moreover, in the case of those authors reviewed who specifically refer to Absolutes, one kind only is addressed, namely, *NP+V-ing*. In proposing our own account of *NP+V-ing* Absolutes in the next section, we take the first step towards providing an alternative analysis in which all three types (1a-c above) are taken into account.

³⁹Example attributed by Tunstall to Visser (1973).

⁴⁰Abney's equivalent to Reuland's stipulation would be the notion that all IPs, including *Acc-ing* gerunds, but excluding infinitivals, have the nominal element AG under I which assigns Case to the subject.

2.3 An Alternative Account of *NP+V-ing* Absolutes

The objective of what follows will be to provide an alternative which will not only lead ultimately to a unified account of the Absolutes in (1)a-c above but, crucially, can provide a principled explanation for the asymmetry in the *NP+V-ing* Absolutes of (2)a&b versus (3)a&b (repeated here):

- (26) a. The students avoided the syntax module, **the new lecturer being a notorious ogre**
b. **Food parcels having been flown in from Britain**, the aid workers could begin to feed the starving refugees
- (27) a. ***Ann writing a letter**, Bill has nothing to do
b. ***Ann arriving later**, there will be four guests for dinner

Following proposals in Diesing (1992), to be outlined below, on the relationship between the individual versus stage-level distinction among predicates and the position into which the subject is inserted, our hypothesis at the beginning of this section will be that in the ungrammatical Absolutes in (27)a&b the subject has been inserted into [Spec, VP] because the predicate is stage-level, and has failed to raise from this position, into a functional projection above it, for Case-licensing.

The first step in the analysis, therefore, will be to explain Diesing's theory as it applies to finite IPs and to show that it extends naturally to Absolutes (which, as will be argued in 2.3.2, are not IPs) (3.1). The issue of how subjects are raised out of VP in *grammatical* Absolutes with a stage-level predicate is introduced next: the possibility that Infl is present and could function as a 'raising category',⁴¹ as proposed for finite IPs in Koopman & Sportiche (1988,1991), will first be ruled out. It will be argued that, although *NP+V-ing* Absolutes are interpreted as finite, they do not contain a tense projection (3.2). It will then be demonstrated that *NP+V-ing* Absolutes with Stage-level predicates, unlike those with Individual-level predicates, obligatorily require a functional verb (i.e. an aspectual

⁴¹The meaning of the term 'raising category' as employed in Koopman & Sportiche (1988; 1991) in the context of the VP-internal Subject Hypothesis (and as it applies here) will be clarified in 2.3.3 below.

auxiliary or copular *be*)⁴² dominating VP. This leads to the proposal that functional verbs in this environment have an EPP feature of the kind generally associated with Infl (see Chomsky 1981) and that the subject, accordingly, moves out of the lexical projection into the specifier of the projection which generates the functional verb (3.3). Finally, we argue that *NP+V-ing* Absolutes are AspPs (with an a-telic feature on the head) and explain how the subject is Case-licensed (3.4).

2.3.1 Diesing (1992): the syntactic position of subjects and the individual versus stage-level distinction

Diesing proposes that in finite clauses the subject of an individual-level predicate is inserted directly into [Spec,IP] while the subject of a stage-level predicate is inserted into [Spec,VP]; three of her arguments in support of this claim will be presented below, one syntactic the other two semantic.

The syntactic argument concerns the asymmetry between the two types of predicate in the potential for the formation of 'there insertion' sentences. As the following examples show, these are limited to stage-level predicates only.⁴³

- (28) a. *There are firemen intelligent

⁴²Auxiliary *have*, like the functional categories T, C and D, is assumed not to assign theta roles (see Pollock 1989). The same may be said of the copula e.g. in the sentence *The man is a murderer* the subject theta role is assigned by *murderer* not *is*. Auxiliary *have* and the copula are also functional in the sense that neither contributes independent meaning to a sentence. For example, if these verbs, and nothing else, are omitted the semantic loss to the sentence as a whole is minimal (although the result is ungrammatical because the functional verbs carry tense and tense is needed to Case-license the subject), as illustrated in the following:

- (i) a. Mary has gone
b. Mary gone
(ii) a. John is happy
b. John happy

The propositional content in the a) and b) examples is identical in each case.

⁴³(28)b&c and (29)b&c are Milsark's examples (Milsark 1974) cited by Diesing (p.42). Milsark uses 'there insertion' sentences to distinguish between 'strong determiners' (e.g. *the, every, all, most*) and 'weak determiners' (e.g. *a, some, few, many*), observing that only the weak ones occurs in this environment.

- b. *There are carrots nutritious
 - c. *There are chili peppers spicy
- (29)
- a. There are firemen available
 - b. There are carrots in the refrigerator
 - c. There are pumpkins visible on the vine

Assuming that the expletives in all of these examples are in [Spec, IP] and the lexical NPs in [Spec, VP], (28)a-c are ruled out because the predicates are individual-level (i.e. the subject is inserted into [Spec, IP] and therefore cannot appear in [Spec, VP] at S-structure).

Notice, now, that exactly the same asymmetry applies to *NP+V-ing* Absolutes:

- (30) **There being doctors *intelligent/available.....**

The two semantic arguments concern the interpretation of bare plural subjects in English and German respectively. It has already been demonstrated in 2.1.1 above that bare plural subjects in English receive a distinct interpretation depending on whether the predicate is individual or stage-level (see (11a&b)above), Diesing's view being that the former are interpreted generically only, the latter either existentially (on the preferred reading), or generically. We show, next, how the assumption that the two predicate types have distinct DS positions can provide a principled explanation for these facts, if the *Mapping Hypothesis* (Diesing 1992:15) is adopted.

The *Mapping Hypothesis* relates the notion of the semantic partition of sentences into restrictive clause and nuclear scope to syntactic structures of the kind proposed in Koopman & Sportiche (1988,1991) in which subjects can be generated in [Spec, VP] and raise to [Spec, IP] for Case in the course of the derivation (i.e. the VP-internal Subject Hypothesis). The mapping from syntactic structures to logical representations is understood to involve a 'tree splitting' process at LF in which material from VP is mapped into the nuclear scope, where it receives an existential reading, and material from IP is mapped into a restrictive clause where it is bound by some operator (e.g. a quantificational

adverb like *generally* is identified as the operator *Gen*).⁴⁴

Consider now how the *Mapping Hypothesis* can account for the differences in the interpretation of the bare plural subjects of individual-level and stage-level predicates, as in (31)a&b respectively below (these are Diesing's equivalent of (11a&b) above).⁴⁵

- (31) a. Violinists are intelligent
b. Firemen are available

The fact that the subject of (31)a is obligatorily interpreted as generic while the most natural interpretation for the subject in (31)b is existential (although a generic reading is also possible) is explained in the following way: the bare plural subject in (31)b has raised in the syntax from its DS position of [Spec, VP] to [Spec, IP] where it appears at S-structure. At LF it lowers back into [Spec, VP] and so gets mapped into the nuclear scope, yielding the logical representation in (32)a, below, in which there is no restrictive clause and the subject variable is bound by existential closure. On the less obvious, generic, reading of the same example LF lowering simply does not take place so that the subject remains in [Spec, IP] and gets mapped into a restrictive clause, where the variable it introduces is bound by the abstract operator *Gen*, as in (32)b:

- (32) a. $\exists x$ x is a farmer (and) x is available
b. $\text{Gen}_{x,t}[x \text{ is a fireman (and)} t \text{ is a time}] x \text{ is available at } t$

The absence of an existential reading for (31)a, by contrast, is explained as a consequence of the distinct DS position of the subject of individual-level predicates: there is no LF lowering because the subject originates in [Spec,IP]. There it receives a theta role from Infl and controls a PRO in [Spec,VP]. The theta role it receives bears the meaning 'has the property X' where X is the property expressed by the predicate (the PRO, in turn, gets its theta-role from the predicate). (31)a, therefore, has only the following reading, in which

⁴⁴Indefinite NPs and bare plurals are understood to introduce variables into the logical representation which have no quantificational force of their own and must therefore either be bound by existential closure (i.e. an implicit existential quantifier that prevents the occurrence of unbound variables) or form a restrictive clause and be bound by an operator like *Gen* (which can be overtly realised in the syntax or abstract).

⁴⁵Examples Diesing (1992:17-18).

a restrictive clause is formed and the subject variable is bound by the abstract generic operator:

(33) Gen_x[x is a violist] x is intelligent

In short, the Mapping Hypothesis can provide a principled explanation for differences in the interpretation of bare plural subjects in examples like (31)a&b. The same contrast holds of the corresponding Absolutes:

(34) a. **Doctors being intelligent**..
b. **Firemen being available**..

Finally, some of Diesing's evidence from German of a specific correlation between [Spec, VP], existential readings of bare plural subjects, and stage-level predicates. In German, subjects can appear either in [Spec, IP] or in [Spec, VP] at SS and so the proposed correlation can be more clearly demonstrated. The following sentences, containing stage-level predicates, serve to show that the position of a bare plural subject (i.e. [Spec, IP] or [Spec, VP] respectively) determines whether it will be interpreted generically or existentially on the most readily available reading (the position of the subject is indicated relative to the position of the sentential particles *ja doch*).⁴⁶

(35) a. ..weil *ja doch* Linguisten Kammermusik spielen
..since prt prt linguists chamber music play
'since there are linguists playing chamber music'
b. ..weil Linguisten *ja doch* Kammermusik spielen
..since linguists prt prt chamber music play
'since (in general) linguists play chamber music'

(36) a. ...weil *ja doch* Haifische sichtbar sind
...since prt prt sharks visible are
...'since there are sharks visible'
b. ...weil Haifische *ja doch* sichtbar sind
...'since (in general) sharks are visible'

As the translations of (35)a&b and (36)a&b indicate, the subjects of the (a) sentences have

⁴⁶Diesing's examples pp.36&37.

an existential reading, while those in the (b) sentences have a generic reading. Diesing concludes that in German, unlike in English, tree-splitting occurs at S-structure so that the bare plural subjects in [Spec, VP] get mapped, at S-structure, into the nuclear scope, without the need for LF lowering, while those in [Spec, IP] remain in situ and get mapped into a restrictive clause.

When the predicate is individual-level, as in (37)a&b below, the bare plural subject appears in [Spec,IP] and has a generic reading only. If it appears to the right of the particle, as in (37)b, it is somewhat awkward and, moreover, does not get an existential reading):⁴⁷

- (37) a. ..weil Wildschweine *ja doch* intelligent sind
 ..since wild boars indeed intelligent are
 'since(in general) wild boars are intelligent'
 b. *?..weil *ja doch* Wildschweine intelligent sind
 ..since indeed wild boars intelligent are
 'since(in general) wild boars are intelligent'

The marginal status of (37)b is expected on the assumption that the subject of an individual-level predicate is base-generated in [Spec, IP] and therefore has no option of lowering into [Spec, VP] for an existential reading. In short, the German data from (35)a-(37)b provide support both for the *Mapping Hypothesis* and for the claim that the subjects of individual-level and stage-level predicates originate in [Spec, IP] and [Spec, VP], respectively.

Returning now to the ungrammatical Absolutes in (27)a&b above: Diesing's theory, as noted above, makes available a very plausible solution for the failure of subject Case-licensing in these structures: the subject has failed to raise out of VP for Case-licensing. How the subject of a stage-level predicate in grammatical examples (e.g. (26b)) gets raised is the question which will be addressed next.

⁴⁷Diesing's examples pp.38.

Koopman & Sportiche (1988;1991) have argued that (finite) Infl is a raising category.⁴⁸ If there were an Infl/T in *NP+V-ing* Absolutes then it is reasonable to assume that this would be +finite since, as will be demonstrated below, all the Absolutes above receive a finite interpretation (in fact, Reuland (1983) describes *Acc-ing* gerunds as 'finite' but tenseless). But if Absolutes contain a raising Infl then there is no reason why the subjects in (27)a&b above should fail to be raised (and Case-licensed) like the subject of finite clauses generally. In the next subsection it will be argued that Absolutes are not in fact IPs/TPs and that the category which raises the subject of stage-level predicates in Absolutes is therefore not (finite) T.

2.3.2 Tense and *NP+V-ing* Absolutes

Here we examine the relationship between the temporal interpretation of an *NP+V-ing* Absolute and the clause it modifies, in order to demonstrate that the Absolute is unlikely to contain an independent tense projection. Our starting point is a review of Enç (1987) in which a syntactic account of the interpretation of tense in embedded clauses is proposed. All the embedded clauses Enç discusses contain tensed verbs and are therefore indisputably (CP)TPs. If the temporal relationship between matrix clauses and Absolutes were to be found consistent with the patterns identified by Enç between matrix clauses and embedded (CP) TPs then this would considerably weaken our claim that there is no tense head in Absolutes. It will become clear below that there are in fact no significant grounds for treating Absolutes as TPs on the basis of a comparison with the temporal interpretation of uncontroversial embedded TPs on Enç's system.

2.3.2.1 Enç (1987) on 'Anchoring Conditions for Tense'

Enç treats tense as a referential expression on a par with nominals, whose denotation is

⁴⁸See, in particular, pp.112-116 of Koopman and Sportiche (1988).

an interval of time specified by means of indices linking it in the syntax to some other interval of time. The linking mechanism proposed, termed ‘anchoring’, is designed to capture the relational character of the tenses (i.e. they must denote intervals which are prior to or simultaneous to some other interval - the PAST denoting an interval of time prior to the speech time, the PRESENT an interval simultaneous to the speech time). The indexation which results from anchoring is assumed to be an obligatory prerequisite of a correct interpretation of tense. The following are the conditions under which the anchoring of tense can be achieved:

(38) *Anchoring Conditions*

- a. Tense is anchored if it is bound in its governing category,⁴⁹ or if its local Comp is anchored. Otherwise it is unanchored.
- b. If Comp has a governing category it is anchored if and only if it is bound within its governing category.
- c. If Comp does not have a governing category, it is anchored if and only if it denotes the speech time.

Consider now how these conditions are shown by Enç to apply first to complement clauses and then to relative clauses and adjuncts to CP.

2.3.2.1.1 Complement clauses

The interpretation of tense in (39)a&b below poses a number of difficulties which receive a convincing explanation on Enç’s system:

- (39) a. John heard that Mary was pregnant

⁴⁹The definitions of government in Aoun and Sportiche (1983) and Chomsky (1981) are adopted i.e. A governs B iff A is X_0 and A and B are contained in the same maximal projection. The governing category of an expression is a domain containing that expression, a SUBJECT accessible to it, and its governor, where SUBJECT is the subject or Agr and *c-commands the governor* (this definition of governing category is based on the revision of the Binding Theory in Chomsky (1986)).

b. John heard that Mary is pregnant

The challenge posed by (39)a, in which the matrix and the embedded clause have PAST verbs, is accounting for the fact that *both* simultaneous and shifted readings of the complement are available:⁵⁰ on the simultaneous reading the hearing event and the event of Mary being pregnant take place over the same past interval;⁵¹ on the shifted reading John heard at some time in the past that Mary, at some time prior to this, was pregnant. Enç's analysis of (39)a is as follows: on the simultaneous reading the embedded tense is anchored directly i.e. it is bound in its governing category by matrix tense and therefore matrix and embedded tense are co-indexed (the embedded Comp is the governor of Infl/tense in the complement; the matrix rather than the embedded subject is the accessible one as the embedded subject does not scope over the governor).⁵² Since the matrix and embedded tense are co-indexed they refer to the same past interval.

On the shifted reading the embedded tense is anchored indirectly via the anchoring of its local Comp (see (38b)above). The local Comp is bound by matrix tense and co-indexed with it, so that Comp and matrix tense both refer to a past interval (the governing category of Comp is the matrix clause where the governor, V, is in the scope of the matrix subject). Enç assumes that a tense denotes an interval that stands in a certain relation to the interval denoted by the Comp. When tense is PAST it refers to an interval which is prior to the interval denoted by Comp; when it is PRESENT it denotes an interval which is the same as the interval denoted by Comp. Since in (39)a the embedded tense is PAST it denotes an interval prior to the past interval denoted by the local Comp. The embedded tense therefore refers to an interval which is prior to the past interval of the hearing event. This is the shifted reading. The *matrix* Comp, in contrast to the embedded Comp, denotes the

⁵⁰The simultaneous reading of (39)a is problematic for previous accounts based on the notion of tense as a sentential operator, for the following reason: the matrix PAST shifts the original time of evaluation t to a past time t' where the sentence in its scope, S_1 , is evaluated. This sentence is true just in case John heard at t' what is expressed in the complement. The complement itself contains PAST, which further shifts the time of evaluation from t' to a time prior to it, say t'' . To account for the presence of PAST (where, on this system, PRESENT would be expected to allow a simultaneous reading), it has been claimed that English has a Sequence of Tense rule which copies the PAST of the matrix onto the complement PRESENT in the morphological component so that when the truth of the sentence is evaluated it is actually a PRESENT. t'' would then be equal to t' (rather than prior to t') and a simultaneous reading would be possible.

⁵¹Simultaneous readings are only available with stative complements.

⁵²See footnote 49 on the requirement that the SUBJECT should c-command the governor.

speech time (see anchoring condition c in (38) above). Enç proposes that when Comp denotes the speech time it bears the index 0.

Examples like (39)b pose two problems: firstly, the embedded PRESENT actually refers to the speech time. However, Enç's anchoring conditions in (38) above incorrectly predict that the embedded tense will be interpreted as PAST (i.e. prior to speech time). This is because the embedded tense must be anchored either directly by matrix tense (via binding in its governing category) or indirectly, via the anchoring of its local Comp, both of which result in a PAST interpretation: with direct anchoring the embedded tense is co-indexed with matrix PAST; with indirect anchoring the embedded Comp gets bound by the matrix PAST and the embedded tense (which is PRESENT) is co-indexed with it. The embedded tense on this system should therefore be interpreted as referring to the same interval as the matrix tense i.e. one which is PAST.

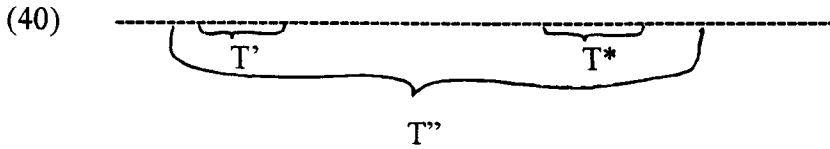
Enç's solution to this discrepancy is as follows: she proposes that the nature of PRESENT tense is actually subject to parametric variation so that in languages like English, it is inherently related to the speech time.⁵³ Although the embedded tense, therefore, is indeed anchored via binding by matrix PAST (recall that anchoring is assumed to be obligatory), the index linking it to matrix tense is rewritten as 0 at LF so that the embedded tense is not actually interpreted as past like the matrix tense but rather is understood to refer to the speech time.⁵⁴

The second problem posed by (39)b is the fact that not only must the time of Mary's pregnancy be interpreted as co-referential with the speech time but it must also include the past time of John hearing about it (since Mary is understood to actually be pregnant at the time John heard about it). Both the speech time *and* the time of John hearing of Mary's

⁵³In Russian a present tense in the complement does not refer to speech time. Thus in the Russian equivalent of *John heard Mary pregnant* (on a simultaneous reading in which both tenses refer to a past interval) the verb in the complement is PRESENT.

⁵⁴As will be explained directly below the embedded tense (as well as all other indexed temporal expressions) will bear a second index in addition to 0 which unlike the first will not be rewritten at LF.

pregnancy must therefore be included in the time of Mary's pregnancy. Enç illustrates these temporal relations in the diagram below (T* represents speech time, T' represents the time of John's hearing about Mary's pregnancy, and T'' represents the time of Mary's pregnancy):



In accounting for (40) Enç begins by adopting a broader notion of speech time than is generally assumed, so that it includes the moment of utterance *and* may vary in size depending on the discourse situation i.e. it can include past and future moments.⁵⁵ It is then argued that tense (and other indexed temporal expressions) in fact bears two indices. If an expression shares a first index with another temporal expression then the two expressions refer to the same interval of time i.e. they are co-referential. If only the second index is shared, then the first expression⁵⁶ includes the interval denoted by the second expression but it is not identical to it i.e. the two expressions are not co-referential (when two expressions *are* co-referential then both indices are shared).⁵⁷ Examples like (39)b on this approach are indexed as follows at LF:

(41) [Comp_(o,i)[PAST_(j,k) [Comp_(o,k)[PRES_(o,k)]]]]

Notice that matrix and embedded tense share a second index (*k*), only, so that the temporal relationship between the matrix and embedded tense involves inclusion but not co-reference (i.e. the time of Mary's pregnancy includes the time of John hearing about it but the two temporal intervals are not identical). The first index of embedded tense is 0 (rewritten at LF from *j*), indicating that the time of Mary's pregnancy is the same as the

⁵⁵ 'We are reading Chaucer' is cited in support of this view.

⁵⁶We come to the ordering of the temporal expressions in relationships of inclusion directly below.

⁵⁷Enç's indexing system is set out as follows: given two expressions of the form $\alpha_{(i,j)}$ and $\beta_{(k,l)}$,

- a. if $i=k$ then // α //= β //
if $i \neq k$ then // α // \neq // β //
- b. if $j=l$ and $\beta_{(k,l)}$ is interpreted before $\alpha_{(i,j)}$, then // α // \subseteq // β //
if $j \neq l$ then // α // \subseteq // β // and // β // \subseteq // α //

speech time (the first index of matrix COMP is also 0 since matrix COMP does not have a governing category and therefore denotes speech time (see (38c) above)). The first index of matrix tense is j because matrix tense is PAST which means that it denotes a time prior to the speech time. Thus, the hearing time is prior to the speech time. The second index of matrix tense is k (like the second index of embedded tense), since, as already indicated, the interval of Mary's pregnancy includes the hearing time (i.e. past) as well as the speech time (present).

Finally there is the ordering of temporal expressions in relationships of inclusion. Enç assumes that the semantic inclusion relation is determined syntactically by c-command.⁵⁸ In examples like (39)b therefore the complement CP moves at LF to adjoin to matrix S (the trace of CP is properly governed by matrix V) yielding the correct interpretation in which the temporal expression which is interpreted first includes the interval of time denoted by the second temporal expression.

Consider now how Enç's system accounts for the interpretation of tense in adjunct clauses and relative clauses, respectively.

2.3.2.1.2 Adjunct clauses and relative clauses

The following examples are discussed:

- (42) a. John lived in London then, although he lives in New York now
b. John saw the man who was crying

Enç locates the adjunct in (42)a as sister to the main clause; in (42)b the NP object of *see* intervenes between the matrix verb and the relative clause (a CP). The most significant

⁵⁸This is in line with the fact that the antecedent in the Binding Theory c-commands the bindee. Clearly a broader notion of antecedent is assumed for the inclusion relation since the antecedent of the included interval of time is not identical to its antecedent.

difference between these two embedded clauses with respect to the interpretation of tense concerns the potential of matrix tense to affect the tense specification of the embedded clause. As will be explained below, the matrix clause in examples like (42)a can never be the governing category for either the Comp or the tense of the embedded clause, while in (42)b it can. The interpretation of tense in the adjunct, therefore, is independent of matrix tense.

In (42)a the embedded tense is governed by its local Comp, but since the matrix subject does not scope over Comp (recall that the adjunct is sister to the main clause), the matrix clause is not the governing category for tense. The embedded tense must therefore be anchored indirectly via its local Comp. Here again the matrix tense is excluded from the equation because the local Comp does not have a governing category. This being the case, the embedded Comp must be co-indexed with the speech time (see (38)c above). The tense of the adjunct (i.e. PRESENT) is then interpreted as denoting an interval which is co-referential with the speech time.

In (42)b, on the other hand (in which both matrix and embedded clause have PAST tense verbs, like (39)a) the embedded tense can be anchored by being bound in its governing category by the matrix past tense (Infl is governed by its local Comp and the matrix subject scopes over the local Comp). This corresponds to a reading in which the past interval of crying is identical to the past interval of seeing. When the embedded tense is anchored indirectly i.e. via the anchoring of its local Comp, it again denotes a time prior to the speech time, but in this case you get a shifted rather than a simultaneous reading i.e. one in which both the seeing and the crying events take place in the past but at different intervals (the two events are not ordered in relation to one another):⁵⁹ the embedded Comp does not have a governing category (the NP intervening between matrix V and the relative clause prevents government of Comp by V) and therefore condition (c) of (38) applies. Since the embedded tense is specified as PAST, it denotes an interval of time which is prior to the speech time but different from the interval referred to by matrix tense. The

⁵⁹e.g. *John heard yesterday the man who was crying just a minute ago* versus *John heard yesterday the man who was crying last week*.

indexations for the simultaneous and shifted readings, respectively, of (42)b therefore are as follows.⁶⁰

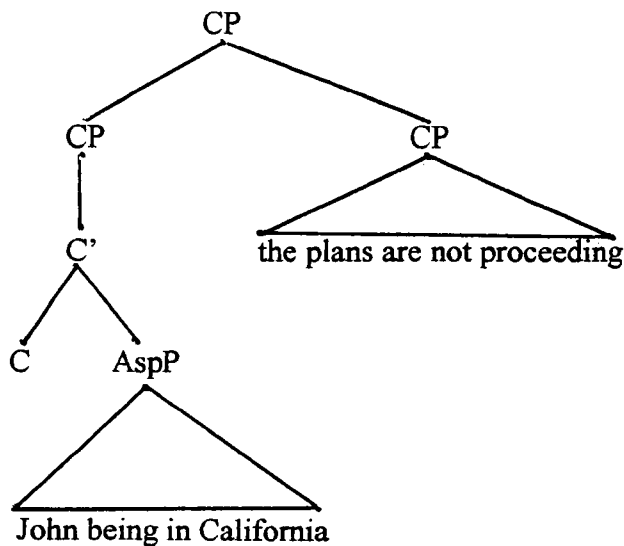
- (43) a. [Comp₀ [NP [PAST_i [V [NP [Comp[.....PAST_i]]]]]]]]
 b. [Comp₀ [NP [PAST_i [V [NP [Comp₀[.....PAST_i]]]]]]]]

In the next subsection we examine the temporal relationship between Absolutes and their matrix clause. Our aim will be to show that if Absolutes were TPs then Enç's system would make a false prediction about the interpretation of tense in the Absolute.

2.3.2.2 Contra anaphoric tense in NP+V-ing Absolutes

(44) below shows the syntactic position of the Absolute in relation to the main clause which is assumed here:

(44)



Since the position of the embedded clause in relation to matrix tense is crucial in Enç's system, the obvious parallel (with unambiguous tensed clauses) to consider first is with

⁶⁰Enç's (31) and (32).

(42)a above which, like (44), consists of an embedded clause adjoined to the main clause. Recall the conclusion above that the embedded clause in (42)a is independent of the matrix clause with respect to its tense specification because the matrix clause is the governing category for neither embedded tense nor its local Comp.

Consider now what exactly the relationship is between the temporal interpretation of an *NP+V-ing* Absolute and the tense of the clause it modifies. There is no morphological distinction between an *NP+V-ing* Absolute which is interpreted as present and one which is interpreted as past, since the verb form *V-ing* occurs in both cases. However, (45)a&b below (containing Absolutes with the copula and a lexical verb, respectively) show that where the matrix tense is PRESENT, both Absolutes are obligatorily interpreted as present (i.e. the matrix tense and the tense of the Absolute are interpreted as co-referential):

- (45) a. **John being in California** the plans are (PRES) not proceeding
b. **John having fallen from his bike**, we are (PRES) advising him to buy a car

The present tense interpretation of the Absolutes can be verified by replacing *V+ing* in each example with a tensed verb; only a PRESENT specification on the embedded verb yields correct paraphrases of (45):

- (46) a. John is (PRES) in California, so the plans are (PRES) not proceeding
b. John has (PRES) fallen from his bike, so we are (PRES) advising him to buy a car
c. #John was (PAST) in California, so the plans are (PRES) not proceeding
d. # John had (PAST) fallen from his bike, so we are (PRES) advising him to buy a car

When the Absolutes are replaced by *tensed* adverbial clauses, in contrast to this, either a PRESENT or PAST tense is possible in the adverbial clause, as predicted on Enç's system.⁶¹

⁶¹The situation changes slightly if the tensed adverbial clause contains an aspectual auxiliary. When the main verb is past tense, as in (47)c&d, the auxiliary, as predicted on Enç's system, can be PRESENT or PAST, as in (i) a&b below:

(i) a. Because John has/had been in California, the plans did not succeed

- (47) a. Because John is/was in California, the plans are not proceeding
 b. Because John falls/fell from his bike we are advising him to buy a car
 c. Because John is/was in California, the plans did not proceed
 d. Because John falls/fell from his bike, we advised him to buy a car

In (47)a-d the embedded tense must be anchored indirectly via the anchoring of its local Comp, as the embedded tense does not have a governing category (see condition (a) of (38)above). Since the embedded Comp also does not have a governing category it must refer to speech time in order to be anchored (see condition (c) of (38)). Depending on whether the tense of the adjunct is specified as PRESENT or PAST, therefore, it will be interpreted either as simultaneous to or prior to speech time. In other words the tense of the adjunct is independent of matrix tense. The contrast between this situation and the one obtaining when the adjunct is an Absolute is clear thus far. Consider now how the tense of an Absolute is interpreted when the matrix tense is PAST:

- (48) a. **John being in California**, the plans did (PAST) not proceed
 b. **John having fallen from his bike**, we advised (PAST) him to buy a car

Although the most natural interpretation of these Absolutes is one in which the tense of the matrix clause and the Absolute are co-referential (both referring to a past interval), as the paraphrases in (49)a&b below demonstrate, PRESENT paraphrases of the embedded clauses, as in (50)a&b, are also possible, in spite of the matrix PAST:

- (49) a. John was(PAST) in California, so the plans did (PAST) not proceed
 b. John had (PAST) fallen from his bike so we advised (PAST) him to buy a car

-
- b Because John has/had fallen from his bike, we advised him to buy a car

However, if the main verb is PRESENT, a PAST perfect auxiliary is ungrammatical:

- (iii) Because John has/*had been in California, the plans are not succeeding
 (iv) Because John has/*had fallen from his bike, we are advising him to buy a car

The important point for our purposes is simply that when the tensed verb is lexical the adverbial clause is always temporally independent i.e. in principle, as predicted on Enç's system, it can be PAST, PRESENT or FUTUE, regardless of the tense of matrix V. This supports the view that the tense of adverbial clauses is not determined (syntactically) via anchoring by matrix T.

- (50) a. John is (PRES) in California, so the plans did (PAST) not proceed
 b. John has (PRES) fallen from his bike, so we advised (PAST) him to buy a car

The most important fact which emerges from the above observations on the temporal interpretation of the Absolutes is that in all cases, unlike with tensed adverbials, there is a reading in which the matrix tense is co-referential with the embedded tense,⁶² (notwithstanding the fact that when matrix tense is PAST a non-co-referential paraphrase is also possible). What this might at first seem to suggest is that the tense of the Absolute can be anchored directly to matrix tense (i.e. the matrix tense would be co-indexed with the embedded tense, which would then be interpreted as either simultaneous with or prior to the speech time, depending on whether the matrix tense is PRESENT or PAST). However, this clearly cannot be the case since the matrix clause is not the governing category for embedded tense (although the embedded tense would be governed by its local Comp, the local Comp is not in the scope of the matrix subject).⁶³ What this means, effectively, is that a parallel in terms of the interpretation of tense between tensed adjuncts and Absolutes cannot be considered promising: tensed adverbial clauses are in principle free to bear PRESENT, PAST or FUTURE tense, regardless of the tense specification on matrix V. The situation with regard to Absolutes, on the other hand, is very different. In all cases an Absolute has a reading in which its tense is interpreted as the same as that of matrix V.

⁶²(i)a below, paraphrased in (i)b, is an apparent exception:

- (i) a. **John having lost his money**, his mother will not replace it
 b. John has lost his money (PRES), his mother will not replace it (FUTURE)

The verb *will* used to refer to future time is treated as a PRESENT tense form in Napoli (1993). She argues that tense must be distinguished from time frame: tense is spelled out morphologically (by -s or -ed), while future time frame is understood from the combination of *will* plus another verb. Notice also how the matrix clause in (i) can be paraphrased as:

- (v) His mother is not going to replace it

Following Napoli (1993), therefore, we assume that the time frame of the second clause in (i)a&b is interpreted as future as a result of the combination of *will* and *replace*. The tense of the Absolute and the matrix clause in examples like (i)a do not differ, therefore, since both are in fact PRESENT.

⁶³Readings in which the tense of the Absolute is not interpreted as co-referential with matrix tense, as in (50a&b), would also be problematic. The tense of the Absolute would have to be anchored indirectly, via the anchoring of its local Comp. The local Comp would not have a governing category and so it would bear the index 0 (indicating that it refers to the speech time). It would then have to be stipulated that the embedded tense is specified as PRESENT in all such cases in order to be interpreted as co-referential with the speech time (and therefore not co-referential with matrix PAST).

In fact, given the potential for the Absolute to be interpreted either as though it were anchored by matrix tense or not, a parallel might be drawn with the relative clause in (42)b above where both possibilities also exist. The crucial difference however is that in (42)b, as already indicated, the matrix tense can actually bind the tense of the relative clause since the matrix subject scopes over it. However, the contemporaneous readings of Absolute and matrix clause (i.e. those in which the two clauses are interpreted as having the same tense specification PRESENT/ PAST) cannot be accounted for in this way, given the syntactic position of the Absolute. An analogy with relative clauses of the kind in (42)b is therefore not viable.

Summing up at this point on the possibility that the interpretation of tense in Absolutes could be accommodated to Enç's system (suggesting that the Absolute might after all contain T), our conclusion is that this cannot be achieved because tensed adverbial clauses pattern differently from Absolutes in terms of their potential temporal interpretation: only with Absolutes is there always a reading available in which matrix and embedded clause are interpreted as having the same tense specification (i.e. PRESENT/PAST). This distinguishing property of Absolutes would have to be accounted for in Enç's system as an instance of direct anchoring by matrix T of embedded T under c-command - this is not possible given the syntactic position of the adjunct in relation to the main clause. Readings in which the Absolute seems not to have the same tense specification as the matrix clause will be taken into account further below, where our analysis of the temporal relationship between the two clauses is fully developed.

Having argued above against an Enç type, syntactic, account of the temporal relationship between matrix clauses and Absolutes, we consider in the next subsection how that relationship might be characterised in semantic terms.

2.3.2.3 Temporal relationship between *NP+V-ing* Absolutes and the matrix clause

Consider now more closely the logical relationship between the Absolute and the matrix clause. A loose description of it would be to say that the Absolute refers to a background against which the event in the matrix clause takes place i.e. it surrounds it temporally. This would explain why on the most salient readings it seemed, on a syntactic approach, as if there was an embedded tense anchored by matrix tense. The ‘backgrounding’ semantic function of the Absolute vis-à-vis the main event is consistent with the observation made in Stump (1985) that Absolutes generally can have a range of interpretations. For example, they can be causal, temporal, conditional or can refer to attendant circumstances,⁶⁴ depending on a combination of factors (the most important of which are context and aspects of the meaning of the Absolute).⁶⁵

What we propose is that the temporal relationship between the Absolute and the matrix clause identified above (i.e. one in which the two are generally interpreted as referring to the same temporal interval) is one of temporal inclusion. In illustrating the point we assume Smith (1991) is correct in claiming that in ‘perfect’ constructions the Situation Time is distinct from the Reference Time (see Chapter 1, section 1.3.1 above). For example in (51) below the Situation Time is anterior to the Reference Time, which in turn is the same as the Speech Time i.e. PRESENT:

(51) John has fallen from his bike

Although there is no T in Absolutes, semantically they do have a Reference Time. In (45)b and (48)b (containing auxiliary *have*), for example, the Reference Time follows the

⁶⁴Stump’s examples of Absolutes referring to attendant circumstances are not included among the Absolutes analysed here as AspPs e.g. *hat-in-hand; head first; face down*. This is for two main reasons: firstly (as noted by Stump), they are quasi-idiomatic; secondly, unlike the Absolutes analysed here as AspPs, they are most naturally located as (right) adjuncts to VP (as Stump observes, they occur after the main part of the sentence rather than sentence initially).

⁶⁵Stump also identifies certain correlates between semantic interpretation of the Absolute and syntax. For example, he notes that the presence of the progressive form of the copula is generally associated with a causal rather than a temporal interpretation of the Absolute (*dinner being over* versus *dinner over* followed by *the speeches began*) and that temporal Absolutes generally precede rather than follow the superordinate clause (e.g. *dinner over* (temporal), *the speeches began* versus **the speeches began, dinner over*).

Situation Time. The temporal relationship between the Absolute and the main clause can therefore be characterised as follows: the Reference time of the Absolute includes the Reference Time of the main clause. This is illustrated below with respect first to the general case in which paraphrases of the Absolute have the same tense as the matrix:

- (52) a. **John being in California**, the plans are (PRES) not proceeding
b. John is (PRES) in California and so the plans are (PRES) not proceeding
c. **John being in California**, the plans did (PAST) not proceed
d. John was (PAST) in California and so the plans did (PAST) not proceed

In (52)a the Reference Time of both Absolute and main clause is the same as the Speech Time i.e present. In (52)c the Reference Time of both Absolute and main clause is again the same, but in this case the Reference Time is anterior to the Speech Time i.e past. Consider now the sense in which these temporal relations involve inclusion.

The analysis of temporal adverbs like *yesterday* proposed in Enç (1987), which we outline briefly below, provides us with a useful parallel in explaining this notion of inclusion. Enç (1987) proposes that adverbs such as *yesterday*, like embedded tense heads and Comp on her system, bear a pair of indices linking them to the tense head. To capture the fact that a VP modified by the adverb *yesterday* must be interpreted as referring to an event which takes place at a time included in the interval of time denoted by the adverb, she proposes that the second index of the adverb is obligatorily the same as the second index of Tense (recall Enç's account of inclusion relations in her analysis of (39b) above). Thus the interval denoted by the adverb *yesterday* is not identical to the interval during which the event referred to in the VP takes place but rather it includes it. The inclusion relation requires c-command and so movement of the 'including expression' must occur at LF if c-command does not hold at Spell-out.

The parallel with Absolutes, which we turn to next, is based on two facts: firstly, Absolutes, like phrases such as *yesterday*, are adverbial in function; secondly, they have temporal properties which, unlike those of a tensed clause, are not realised (independently) in the syntax in the form of a tense projection. We propose that the Absolute bears

temporal indices of the kind posited by Enç for adverbs like *yesterday*. The second index of the Absolute is co-referential with the second index of the Tense head of the main clause. This is a syntactic reflex of the fact that the temporal interval denoted by the Absolute includes the interval denoted by the main clause. It is also consistent with the fact that in (52)a&c the adjunct c-commands the main clause so that LF movement is not required.

Consider now how this approach can be extended to the Absolutes with auxiliary *have*, again on the readings in which the Absolute can be paraphrased using the same tense as the main clause, as in the following (repeated):

- (53) a. **John having fallen from his bike**, we are (PRES) advising him to buy a car
b. John **has** (PRES) fallen from his bike and so we are (PRES) advising him to buy a car
c. **John having fallen from his bike**, we advised (PAST) him to buy a car
d. John **had** (PAST) fallen from his bike and so we advised (PAST) him to buy a car

The Reference Time of the Absolutes (in (53a&c)) is the same as the Reference Time of their matrix clauses. The temporal indices of the Absolute can therefore be said to indicate that the temporal interval which the Absolute refers to includes the interval referred to by the temporal indices of T in the main clause i.e they share a second index.

The only potential difficulty arises when the matrix tense is PAST and the Absolutes in (48)a&b are paraphrased as PRESENT (see (50a&b) above). The relevant examples are repeated below:

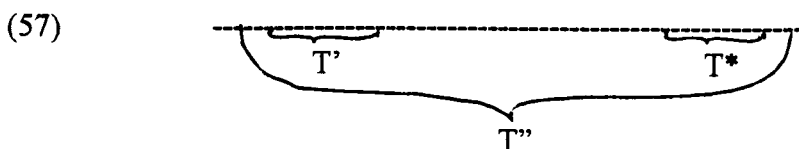
- (54) a. **John being in California**, the plans did (PAST) not proceed
b. **John having fallen from his bike**, we advised (PAST) him to buy a car
(55) a. John is (PRES) in California, so the plans did (PAST) not proceed
b. John has (PRES) fallen from his bike, so we advised (PAST) him to buy a car

Since the Reference Time of the Absolute in (54)a is interpreted as PRESENT, it is co-

referential with the speech time. Recall now the proposal in Enç (1987) that the speech time can, in certain contexts, include a past interval. Examples like (39)b above, repeated here, are a case in point:

(56) John heard that Mary is pregnant

In (56) the time of Mary being pregnant includes the time of John hearing about it. What we propose therefore is that on a reading of (54)a which can be paraphrased by (55)a the speech time is extended so that *John being in California* has a Reference time which includes the past interval of time during which the plans did not proceed. This position can be represented diagrammatically as in (57) below, where T' indicates the time of the plans not proceeding, T* indicates the speech time, and T'' indicates the time of John's being in California:



A similar argument can be applied to (54)b as paraphrased in (55)b. The Reference Time of the event in the Absolute is interpreted as PRESENT i.e the same as the Speech Time. The Speech Time is then extended to include the PAST interval of the event in the matrix clause.⁶⁶

To sum up subsection 2.3.2, our examination of Enç's theory of 'anchoring' leads to the conclusion that there are sufficient differences between tensed adjuncts and *NP+V-ing* Absolutes in terms of their temporal relation with matrix tense to support the claim here that Absolutes do not contain a TP. It has been proposed that the temporal relation between the Absolute and matrix clause is one of inclusion in which the Reference Time of the event in the Absolute includes the Reference Time of the matrix event. The conclusion that

⁶⁶Notice that the Speech Time also includes the (anterior) Situation Time of the Absolute (assuming Smith's account of the Perfect (Smith 1991)). The extended Speech Time therefore includes the following three times: i) the Situation Time of the Absolute; (ii) the Situation Time of the matrix clause; (iii) the Reference Time of the matrix clause (which is the same as the Situation Time of the matrix clause).

Absolutes are unlikely to contain a TP is in keeping with the observation in 2.2 that IP/TP based accounts of subject-licensing in *NP+V-ing* Absolutes are not satisfactory. Assuming, then, that Absolutes are not IP/TPs, raising of the subject out of VP when the predicate is stage-level cannot be attributed to a raising Infl.

In the next subsection we demonstrate that an *NP+V-ing* Absolute with a stage-level predicate obligatorily requires a functional verb (i.e. auxiliary *have* or copular *be*) dominating VP. This leads to the proposal that the category which raises subjects from [Spec, VP] in Absolutes, is the functional verb.

2.3.3 The distribution of 'functional' verbs in *NP+V-ing* Absolutes

An obvious syntactic difference between the two pairs of examples in (26)a&b and (27)a&b above, which might throw some light on the asymmetry between them, is that in the grammatical ones the lexical predicate of the Absolute is in each case immediately dominated by a 'functional' verb, while in the ungrammatical ones the only verb present is lexical. This suggests the possibility that a functional verb might, for some reason, be obligatory for subject Case-licensing in *NP+V-ing* Absolutes generally. The fact that when auxiliary *have* is applied to the predicates of (27)a&b they, too, become acceptable, might seem to support such a hypothesis:

- (58) a. **Ann having written the letter**, there was nothing left for Bill do
b. **Ann having arrived later**, there were altogether four guests for dinner

However, (59)a-c below, containing Absolutes with a lexical verb only, show that a generalisation of this kind cannot be correct ((59a) is repeated from above):

- (59) a. **Students generally spending more money on drink than their parents**, it wouldn't be easy to convince them to become teetotallers
b. **Females generally driving more cautiously than males**, insurance companies feel justified in offering them lower premiums

- c. **Children generally consuming more soft drinks than adults**, supermarket advertisers have an easy target

The key to the grammaticality of these Absolutives, in spite of the absence of a functional verb, is evidently the application of the adverb *generally* to the predicates, without which they are unacceptable.⁶⁷

- (60) a. ***?Students spending more money on drink than their parents**, it wouldn't be easy to convince them to become teetotallers
 b. ***?Females driving more cautiously than males**, insurance companies feel justified in offering them lower premiums
 c. ***?Children consuming more soft drinks than adults**, supermarket advertisers have an easy target

Notice that the effect of applying the generic adverb, as in (59)a-c above, is that stage-level predicates are converted to individual-level predicates. That the predicates of these *NP+V-ing* phrases are actually stage-level without the adverb is clear from the fact, illustrated in (61)a-c below, that they can occur as complement to *see* (the *NP+V-ing* complement of *see* always denotes an event of some kind):⁶⁸

- (61) a. John saw [students spending more money on drink than their parents]
 b. John saw [females driving more cautiously than males]
 c. John saw [children consuming more soft drinks than adults]

In addition, the fact that the bare plural subjects in (61)a-c are all interpreted existentially, as expected with stage-level predicates (see 2.1.1 above), supports this assumption.⁶⁹

⁶⁷This might beg the question why there is not an abstract generic operator available in these examples to bind the variable introduced by the bare plural (see Diesing 1992). A contrast arises in this respect with examples like *Firemen are intelligent* which Diesing (1992) assumes includes an abstract generic operator. The obvious difference is that the predicates in (60)a-c are stage-level (unless adverbially modified to select a generic reading). Of course, Diesing also proposes that in sentences like *Firemen are available* (with a stage-level predicate) a less obvious generic reading of the subject is possible, in addition to the existential one, via an abstract generic operator binding the subject variable. There may also be some speakers who find (60)a-c marginal, in which case an abstract generic operator binding the subject variable will be assumed, by analogy with examples like *Firemen are available*.

⁶⁸As noted above, Stump (1985) also uses this test for identifying stage-level predicates.

⁶⁹Of course the same *NP+V-ing* phrases *with* the adverb *generally* can also occur as complement to *see*, as in the following:

- (i) John saw [students generally spending more money on drink than their parents]

The crucial difference is that in (i) the *NP+V-ing* is still a stage-level predicate i.e. the generic operator binds times in the complement clause not students i.e. it means *John saw some students who generally spent more money on drink than their parents*. The adverb *generally* in the *NP+V-ing* phrases in (59)a-c (which we claim

Our conclusion is, therefore, that the most accurate description of the facts relating to the obligatoriness or otherwise of a functional verb in *NP+V-ing* Absolutes would be to say that these are actually obligatory with stage-level predicates, as in (26)b versus (27)a&b, but not with individual-level predicates, as demonstrated by the grammaticality of both (26)a and (59)a-c. The obligatory presence of *ing* (affixed to V) in all of these Absolutes (whether stage-level or individual level predicates) will be explained further below (i.e. 2.3.4).

Since we have already taken the view that subject-raising is only required in an *NP+V-ing* Absolute when the predicate is stage-level, and since it is now clear that a functional verb is only obligatory when the Absolute has a stage-level predicate, then an obvious conclusion to draw is that a functional verb is obligatory in an *NP+V-ing* Absolute with a stage-level predicate because it raises the subject out of [Spec, VP] in the absence of Infl. What we propose, therefore, is that functional verbs are a raising category in *NP+V-ing* Absolutes. Below we clarify what it means to say that functional verbs are a raising category in this environment.

2.3.3.1 Functional verbs as a raising category in *NP+V-ing* Absolutes

The notion of aspectual auxiliaries as raising verbs is not, in itself, particularly controversial as Koopman & Sportiche (1988;1991:216) and Sportiche (1988:442) have already referred to them as such in IPs generally (i.e. finite and non-finite clauses). An auxiliary verb is a raising verb, on their approach (and ours), in the specific sense that when it is inserted into the syntax the subject of the VP it dominates must move into its specifier. In other words, the head which generates *have* must project a specifier.

have individual-level predicates) always binds the subject variable i.e. it means either: *since most students spend more money on drink than their parents* or *since most students generally spend more money on drink than their parents*. On both readings the subject variable introduced by the bare plural is bound by the generic operator and therefore gets a generic reading. Following Carlson (1980) and Diesing (1992) (see 2.1.1 above) this means that the predicate is most appropriately characterised as individual-level.

An obvious difference between this notion of raising category and the more familiar one exemplified by the raising predicates *seem*, *appear*, *likely* and *certain* is that in the latter case the raising category has a single theta role to assign, which goes to its propositional complement, while an auxiliary verb does not assign any theta roles. What standard raising predicates and auxiliary verbs have in common is the fact that the subject position is not assigned a theta role and therefore it can, in principle, be occupied by an argument of the lexical projection without violating the Theta Criterion. The same can be said of copular *be*.

The evidence cited in Koopman and Sportiche (1988,1991:216) in support of treating auxiliary verbs in IP as a raising category in the sense specified above is easily applied here to auxiliary verbs in Absolutes: firstly, an auxiliary verb in IP takes as subject an NP licensed by the predicate it dominates i.e. the subject in its specifier is the (external)⁷⁰ argument of the lexical verb - the same is true of the aspectual auxiliary in an Absolute; secondly, 'floating' quantifiers can appear following the aspectual auxiliary in IP, supporting the view that the subject has raised from [Spec, VP] without the quantifier (see also Sportiche 1988). The same is true of Absolutes, as illustrated below:⁷¹

- (62) a. **The people having all fled**, the village was desolate
 b. **The guests having all signed the visitors' book**, the guide commenced the tour
 c. **The parcels having all been delivered**, the postman returned to the depot

Thirdly, an auxiliary verb in IP takes 'weather *it*' and expletive *there* in subject position. So does the aspectual auxiliary in an Absolute, as illustrated in the following:

- (63) a. **It having rained all day**, the match had to be cancelled
 b. **There having been three robberies in the neighbourhood this month**, the police were forced to increase patrols

⁷⁰With an unaccusative verb the subject would be an internal rather than an external argument of the verb.

⁷¹Sportiche proposes an analysis of French examples like the following in which the 'floating' quantifier (italicised) modifies an NP trace representing the VP internal subject which has moved to [Spec, IP] for Case:

(i) Les enfants_i ont [_{NP} *tous t_i*] vu ce film

A similar account of floating Qs is assumed in English.

The most interesting observation, in fact, is not that the aspectual auxiliary functions as a raising category in Absolutes, since it does so in other environments also, but rather, that in *NP+V-ing* Absolutes with a stage-level predicate it is an obligatory element, hence the ungrammaticality of (27)a&b above. The absence of a functional verb in (59)a-c does not lead to ungrammaticality because here the predicate is individual-level - the subject is inserted above VP and therefore does not require raising out of [Spec, VP]. Consider now what property a functional verb like *have* or copular *be* might have in Absolutes, which enables it to raise the subject out of the lexical projection.

A comparison with these functional verbs in finite IP/TP is useful here. It is generally assumed that in a tensed clause the subject moves overtly to [Spec, IP] for two reasons: i) Infl has a (strong) EPP feature;⁷² ii) Infl(+finite) can check the Case feature of a nominal in its specifier (see Chomsky 1995:283). The Extended Projection Principle requires that every clause should have a formal subject. In order to reach the position of formal subject (where the EPP feature is checked (and the subject is Case-licensed))⁷³ the subject argument of the lexical projection moves from spec to Spec. When there is a functional verb in the derivation, therefore, it moves through the specifier of the head which generates the functional verb (as argued in Sportiche 1988). In Absolutes, on the other hand, a different situation arises, since, as argued above, there is no IP/TP present in these structures. Movement of a subject into/through the specifier of *have* cannot therefore be related to the need for the subject to satisfy the EPP in [Spec, IP/TP]. What this suggests to us is that the functional verbs themselves must have an EPP feature in this environment. This explains why functional verbs are obligatory in *NP+V-ing* Absolutes with stage-level predicates - they bear an EPP feature which causes the subject to move out of the lexical projection. This view is consistent with three striking similarities between Infl/T and the category which generates functional verbs in *NP+V-ing* Absolutes: both dominate CFCs, both lack a theta-grid and both require a lexical NP subject to move into the specifier.

⁷²Extended Projection Principle (Chomsky 1981). See also Chomsky (1995:282) for description of the EPP feature as 'strong'.

⁷³Although in finite clauses the subject checks both an EPP feature and a Case feature against (+finite) Infl/T Chomsky emphasises (p.282) that the EPP is divorced from Case. All values of T/Infl induce the EPP, including infinitives.

Our account of the ungrammaticality of the Absolutes in (27)a&b thus far, therefore, is as follows: there is no EPP feature present in the derivation and so the subject fails to raise out of the lexical projection. This leads ultimately to the failure of Case-licensing. The presence of an EPP feature alone would not in itself guarantee subject-Case-licensing. For example, in non-finite IP the EPP feature of Infl simply raises the subject into [Spec,IP]. In order for the Case feature of the subject to be checked the head of the projection above it must be an ECM Case-licenser. In finite IP, on the other hand, both raising of the subject and Case-licensing are associated with the same head. What happens in (27)a&b is that the absence of an EPP feature in the derivation means that the subject does not get itself into a position from where it can subsequently have its Case-feature checked. In the next subsection we propose a syntactic structure for *NP+V-ing* Absolutes and explain how exactly the subject is Case-licensed.

2.3.4 *NP+V-ing* Absolutes as AspP

It will be argued here that all *NP+V-ing* Absolutes are AspPs, that the case of the subject is checked in [Spec, AspP], and that the *ing* affix on V checks at LF against an a-telic feature on the Asp head.⁷⁴ Differences in terms of internal structure between Absolutes with Stage-level and Individual-level predicates will be attributed to the need for a category with an EPP feature (i.e. a functional verb) in the former, only.

⁷⁴The *ing* affix on V in an Absolute can denote an ongoing action, an ongoing state, or an ongoing state resulting from a completed action (e.g. an Accomplishment or Achievement), as in (i)a-c respectively below. In this sense it may be said to denote an a-telic aspectual property of the predicate:

- (i) a. **With the children playing** happily, the parents could put their feet up
- b. **John being ill**, the party was cancelled
- c. **John having received first prize**, the audience applauded

See below for full discussion and further possibilities.

2.3.4.1 Stage-level predicates

In proposing a syntactic structure for *NP+V-ing* Absolutes with stage-level predicates we build on the conclusion reached above, and illustrated again in (64)a-e below, that these always include a functional verb i.e. either an aspectual auxiliary or copular *be*:

- (64)
- a. **Ann having written the letter**, there was nothing left for Bill to do
 - b. **Ann having arrived later**, there were altogether four guests for dinner
 - c. **Food parcels having been flown in from Britain**, the aid workers could begin to feed the starving refugees
 - d. **Floods being imminent**, the emergency services were on red alert
 - e. **Food parcels being on the way**, the crowds would soon be fed

Assuming that in (64)a-c *have* is inserted under Asp (following Koopman & Sportiche 1988, 1991), and that in (64)d&e *be* is inserted under the head of a copular projection (CopP), it might seem at first as if these Absolutes consist simply of an AspP/CopP dominating a lexical projection, with the subject moving to [Spec, AspP/CopP] (to satisfy the proposed EPP feature on the functional verbs) and having its Case feature checked in this position (cf. subjects in [Spec, IP/TP(+finite)]). There are two reasons why this is unlikely to be the case, the first concerning the distribution of floating quantifiers, the second, the need for a checking domain for the *ing* inflection on the functional verb.⁷⁵

Notice that a floating quantifier can appear directly following the subject (i.e. before *V (functional)+ing*), suggesting that the subject has moved to the specifier of a higher functional projection than the one in which the verb with the (proposed) EPP feature appears:

- (65)
- a. **The food parcels all having been flown in from Britain**, the aid workers could begin to feed the starving refugees
 - b. **The children all having written letters**, there was nothing left for the teachers to do
 - c. **The managers both having arrived later**, there were altogether four

⁷⁵We assume, as in Chomsky (1995), that verbs are inserted with their inflections and checking of the relevant features is achieved via movement.

guests for dinner

- d. **The emergency services all being on red alert**, the police were taking no chances
- e. **The food parcels both being on the way**, the crowds would soon be fed

Of course, in a finite IP a floating quantifier can also intervene between the subject and auxiliary *have* (which following Pollock 1989 has raised to T/Infl), as in (66)a&b below, yet, unlike our proposal for the Absolutes in (64)a-e, the lexical subject and (tensed) aspectual verb are generally assumed to be in the specifier and head, respectively, of the same projection (i.e. TP/IP):

- (66) a. The food parcels all have arrived
- b. The children all have written letters

However, there are possible explanations for this fact in the case of finite clauses, which cannot be extended to Absolutes: Sportiche (1988:443), in accounting for examples like (66)a&b, suggests that either the subject is in topic position, with the floating quantifier in [Spec TP/IP]), or it is in [Spec, TP/IP] with the quantifier head-adjoined to I/T. The latter, head-adjunction, account is supported by the fact that only *bare* quantifiers are well-tolerated in this position (note the contrast between *the food parcels almost all have arrived* and *the food parcels have almost all arrived*), as might be expected if only an X^0 can adjoin to X^0 .

Neither of the above solutions to the position of the floating quantifiers in (66)a&b can be applied to the ones in (65)a-e: firstly, it is unlikely that the Absolute subject is a topic, given that English embedded clauses do not allow topicalisation, as illustrated, below, for adjunct clauses:

- (67) a. Because John liked skiing, he went to Switzerland every year
- b. *Because skiing John liked, he went to Switzerland every year
- (68) a. The students worked to earn their fees
- b. The students worked their fees to earn

Secondly, there is no contrast, of the degree noted above for IPs, between the phrase *almost all* preceding or following *have* in Absolutes, as illustrated below, suggesting that the

Absolutes in (65)a-e do not involve adjunction of the quantifier to the head of the projection filled by the functional verb:⁷⁶

- (69)
- a. **The food parcels (almost all) having (almost all) been flown in from Britain**, the aid workers could begin to feed the starving refugees
 - b. **The children (almost all) having (almost all) written letters**, there was nothing left for the teachers to do
 - c. **The managers (almost all) having (almost all) arrived later**, there were altogether four guests for dinner
 - d. **The emergency services (almost all) being (almost all) on red alert**, the police were taking no chances
 - e. **The food parcels (almost all) being (almost all) on the way**, the crowds would soon be fed

Given that neither of the above explanations for (65)a-e are applicable, an alternative account remains to be found.

We come now to the second reason mentioned above for assuming that there is another functional projection, dominating the AspP/CopP in which the functional verb (*have/be*) appears i.e. that a checking domain is needed for *ing*. Our point is that if *ing* does not check against a head above *have* then it must be assumed that it is base-generated in the same position as *have* i.e. that both are the overt realisation of the same functional head - this is an unlikely possibility, given that a single head is generally not expected to generate two distinct grammatical morphemes.

The evidence in support of a second functional projection, dominating AspP/CopP, in NP+V-*ing* Absolutes, is therefore strong. Our claim that it is, in fact, another AspP is based on the aspectual semantics of *ing*, which seems, in this environment, to be most accurately characterised as the overt syntactic realisation of a-telicity (or imperfectivity) in the predicate.

⁷⁶The fact that the head would be occupied by the functional verb makes this an unlikely possibility anyway.

Assuming the approach to Aspect proposed in Smith (1991) (see Chapter 1), each of the Absolutes in (64)a-c consists of a verb constellation which is telic at basic-level. The underlying telic events are as follows:

- (70) a. [Anne write a letter] (Accomplishment)
b. [Ann arrive] (Achievement)
c. [Fly food parcels in from Britain] (Accomplishment)

The addition of the perfect auxiliary in (64)a-c first alters the viewpoint of these sentences so that the telic events are presented as States (see Chapter 1, section 1.3.1 on the stative viewpoint of the perfect construction). The further addition of the *ing* morpheme presents the state of affairs as though it were a process. A comparison can be drawn in this respect with examples like the following:

- (71) The picture is hanging on the wall

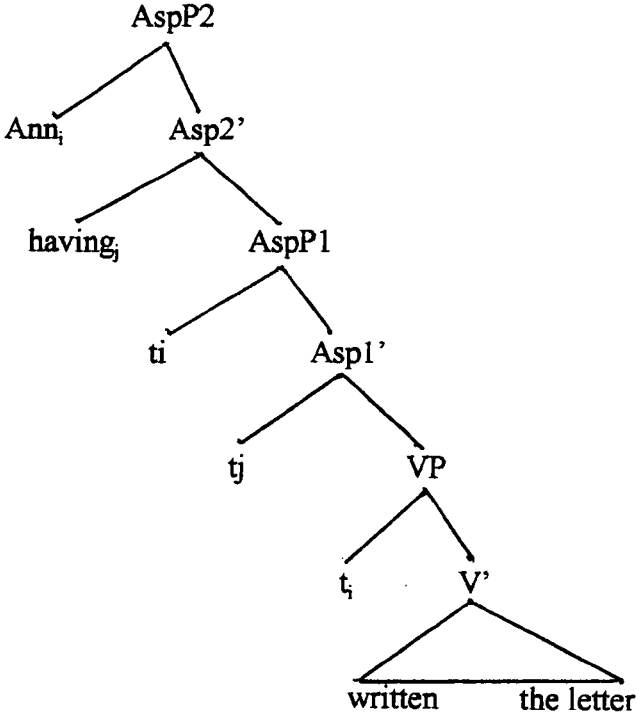
In (71) the basic-level situation type is telic (i.e [John hang picture on the wall]). The telic event becomes a State when the result of that event is focussed [picture hang on the wall]). The use of the progressive form of the verb allows the State to be presented as a process. Thus, although the property +/-telic is not generally considered relevant to States, it becomes relevant in examples like (71) because of the way in which the event is presented in this sentence. The progressive morpheme *ing* effectively alters the situation type to Activity from State.

We propose that in (64)a-c a similar change of viewpoint occurs so that here also the addition of the grammatical morpheme *ing* allows the State to be viewed as a process. As such it is on a par with Activities generally and can with reason be described as a-telic.

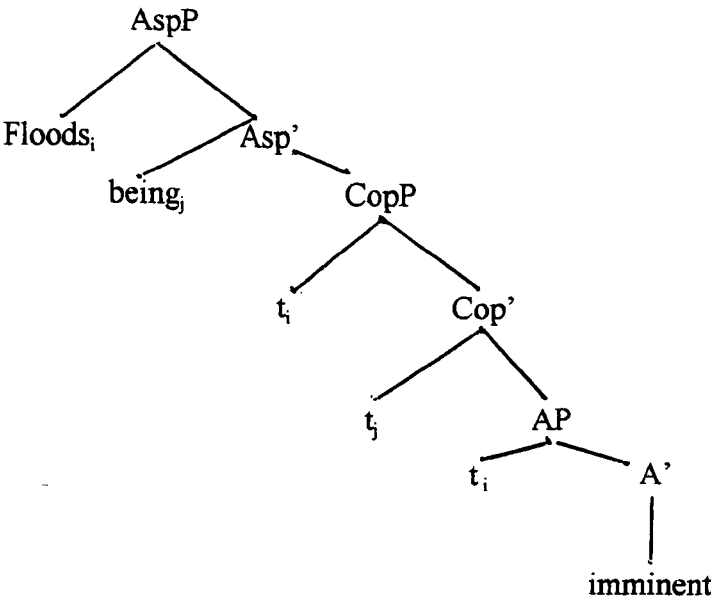
In examples like (64)d&e there is no embedded telic event. The basic-level situation type of the verb constellation is State ([floods be imminent]; [food parcels be on the way]). We propose that here also the application of the progressive to the basis-level situation type has the effect of presenting a State as a process.

To conclude: the verbal affix *ing* in Absolutes is the overt realisation of an underlying (a-telic) Asp head. The structures we propose for NP+V-*ing* Absolutes with stage-level predicates are as follows:⁷⁷

(72)



(73)



⁷⁷There is nothing unexpected in the assumption that two AspPs can occur together in an Absolute, one immediately dominating the other, since this is also possible in IPs:

(i) The numbers may [_{AspP2}have [_{AspP1}been falling]]

In (72) the subject is inserted into [Spec, VP] and then raised out of VP into [Spec, AspP1] by the EPP feature of the aspectual auxiliary. The subject moves again for Case-checking into [Spec, AspP2].⁷⁸ The formal feature associated with *ing* is checked either via overt movement of the aspectual auxiliary to the head of AspP2 or non-overtly at LF (hence the grammaticality of *the children all having written letters*).

In (73) the subject is inserted into [Spec, AP] then raised by the EPP feature of the copula into [Spec, CopP]. It moves again from there, into [Spec, AspP], for Case-checking. The formal feature associated with *ing* is checked either via movement of the copula to Asp or non-overtly via movement of the formal features to Asp at LF (hence the grammaticality of *the emergency services all being on red alert*). The minimum amount of functional structure required for subject Case-licensing in this environment, therefore, is two projections, one to generate a functional verb with an EPP feature which is checked by movement of the subject out of the lexical projection to its specifier, the other to check the formal feature associated with *ing* which, in turn, is needed to Case-license the subject. Next we examine the mechanism involved in subject Case-licensing as proposed above.

2.3.4.1.1 Subject Case-licensing and *ing*

In the account of *NP+V-ing* Absolutes proposed above there are two important steps involved in the licensing of the subject in its Spell-out position (the specifier of the highest of two functional projections). The first is movement from the specifier of the lexical projection to [Spec, Asp/CopP] (in the lower functional projection). This movement enables the EPP feature on the functional verb to be checked, and is comparable to movement of a subject into [Spec, IP] in a non-finite clause, since this is also motivated by the need for the (strong) EPP feature on Infl/T to be checked, in accordance with the Extended Projection Principle. The second step is movement to the specifier of the higher functional projection (i.e. the one which checks the formal feature associated with *ing*).

⁷⁸The syntactic mechanisms involved in subject Case-licensing are explained in the next subsection.

This is motivated by the need for the subject to enter into a checking configuration with that head (i.e. a spec-head relation) to eliminate its Case feature.^{79, 80}

Case-licensing in a non-finite IP and Case-licensing in an *NP+V-ing* Absolute differ, therefore, in that only in the latter case must the subject move a second time in order to be Case-licensed. This is because in *NP+V-ing* Absolutes, unlike in non-finite IP, Case-licensing is not available for the subject via a (pre-LF) ECM configuration, following the first movement. The two constructions are similar to the extent that, in both, the functional head which has an EPP feature to be checked against a subject in its specifier is not the same as the one which checks the Case of that subject. Non-finite IPs and *NP+V-ing* Absolutes differ in this respect from finite IPs where +finite Infl/T has both an EPP feature and a Case-feature to be checked against the subject in its specifier.

The link between the availability of subject Case-licensing and the presence of *ing* is evident from the fact, illustrated below, that if *ing* is omitted ungrammaticality results:

(74)

- a. ***Firemen be available**, the blaze was soon under control
- b. **Firemen being available**, the blaze was soon under control

One might ask at this point why the subject does not move into a checking configuration with *ing* directly i.e. why it does not move out of the lexical projection without the need for a functional verb with an EPP feature. (75)a&b, repeated from above, suggest strongly that this is not possible:

(75)

- a. ***Ann writing a letter**, Bill has nothing to do
- b. *** Ann arriving later**, there will be four guests for dinner

⁷⁹The Asp head with the Case-feature would not have to be filled by *having* at Spell-out (recall from above that *ing* can check its Asp feature either overtly or non-overtly) in order for Case-checking to take place. The Case-feature is present on Asp provided *ing* is in the derivation.

⁸⁰The Case feature associated with *ing* might be strong and therefore force this movement or the subject might simply move because its Case feature must be overtly checked (if a weakened version of 'Last Resort' (Chomsky 1995:280) were adopted). There is evidence in Chapter 4 section 5.1 that a weakened version of Last Resort might be preferable, in view of our analysis of Irish non-finite clauses.

It is generally agreed that the numeration for a canonical clause (+/-finite(CP)IP) must include both an EPP feature and a Case feature (to be checked by the subject). The subject of a clause differs in this respect from other subjects (e.g. *the Romans* in *the Romans' destruction of the city*) which are not associated with an EPP feature (the subject of a nominal CFC must, of course, have its Case-feature checked, like any other NP). The proposal that both a functional verb with an EPP feature and a Case-checking head *ing* must be present in the numeration of an *NP+V-ing* Absolute of the kind in (74)b is therefore fully consistent with the assumption that *NP+V-ing* Absolutes are clauses. The functional verb is obligatory, therefore, for two reasons: firstly, because it provides the EPP feature which moves the subject out of the lexical projection (hence the non-generic reading of the bare plural); secondly, because *ing*, which Case-licenses the subject, can affix to it. The ungrammaticality both of (74)a, which is without *ing*, and of (75)a&b which are without the functional verb, suggests strongly that the two steps are obligatory in order for the derivation to converge.⁸¹

⁸¹We have proposed above that in an *NP+V-ing* Absolute with a stage-level predicate a functional verb (with an EPP feature) is obligatory in order for the subject to be raised out of the lexical projection and into the position of formal subject. The grammaticality of the following example might seem to undermine this theory:

(i) **The box containing no mangos**, Gillian had to be content with papaya.

The predicate of the Absolute in (i) is stage-level and stative (note the grammaticality of *there are boxes containing no mangos*). However, it does not contain a functional verb. It might therefore be argued, contra our analysis, that the crucial factor in determining whether an Absolute is acceptable or not is semantic, rather than syntactic. More specifically, it could be claimed that grammaticality depends on the potential of the event described in the Absolute to 'temporally surround' the main event. The event in the Absolute would have to be enduring enough to overlap with the event of the main clause and be a plausible background for it (thus ruling out many stage-level predicates). However, the fact that the following Absolutes, which are similar to those in (i) above in the relevant sense, argues against such an approach:

(ii) a. * The box smelling of white spirit, Gillian decided not to buy any mangos
 b. * The letters lying on the ground, the postman knew the mail box had been vandalised

Note that the temporal/aspectual properties of the predicates in these Absolutes are very similar to those of the corresponding predicates in (i), i.e. they are stage-level states. Moreover, all three Absolutes are causal/temporal adverbials i.e. the logical relation between the Absolute and the main clause is the same. A purely semantic account of the kind referred to above therefore does not seem promising. In fact, (i) can be accommodated to our syntactic account.

The most striking (syntactic) difference between (i) and the ungrammatical examples in (ii) is that the subject of the Absolute in (i) is a locative (cf. *there are no mangos contained in the box*), while the subjects of the Absolutes in (ii) are both themes. The locative argument in English is typically projected as the object of a preposition within the complement of V (e.g. *John put the mangos in the box*) i.e. it is mapped into the position associated with oblique arguments in English (see reference to Tenny 1987 in Chapter 1, section 1 above). The verb *contains*, however, takes a locative subject in (i). What this suggests is that the verb *contains* has a

Consider now how this compares with the structure and subject Case-licensing mechanism proposed below for *NP+V-ing* Absolutes with an individual-level predicate.

2.3.4.2 Individual-level predicates

Two conclusions reached above about *NP+V-ing* Absolutes with individual-level predicates will be taken into account in determining the correct structure for these phrases: the first is that the subject is assumed not to originate in the specifier of the lexical projection; the second, that a functional verb is not absolutely obligatory, as illustrated in the following examples repeated from above (only (76)a has a functional verb):

- (76)
- a. The students avoided the syntax module, **the new lecturer being a notorious ogre**
 - b. **Students generally spending more money on drink than their parents**, it wouldn't be easy to convince them to become teetotalers
 - c. **Females generally driving more cautiously than males**, insurance companies feel justified in offering them lower premiums
 - d. **Children generally consuming more soft drinks than adults**, supermarket advertisers have an easy target

Since a functional verb is not obligatory in these examples and since this is the category which we have proposed bears an EPP feature in Absolutes, it seems reasonable to assume that in Absolutes with individual-level predicates the Extended Projection Principle is satisfied simply by virtue of the fact that the subject is inserted directly into the position of 'formal subject'.⁸²

The assumption that the subject is in a functional projection above the one which generates *V-ing* is supported by the fact that here also a 'floating' quantifier can appear

grammatical feature which forces its locative argument to move from its in situ position into the position of formal subject. On the assumption that the Absolute in (i), like all the other Absolutes analysed above, is a clause, and that the numeration for a clause includes an EPP feature, we propose that *contains* in (i) is +EPP.

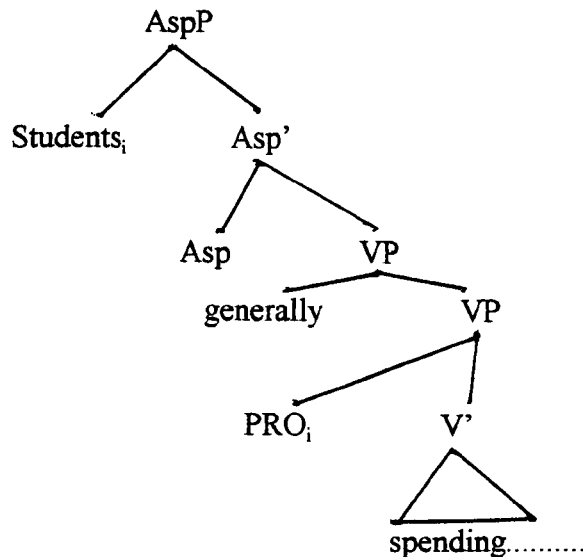
⁸²The same would be true of subjects inserted directly into [Spec,IP] in full clauses with individual-level predicates.

directly following the subject and preceding *V+ing*, as illustrated in (77)a-d below:

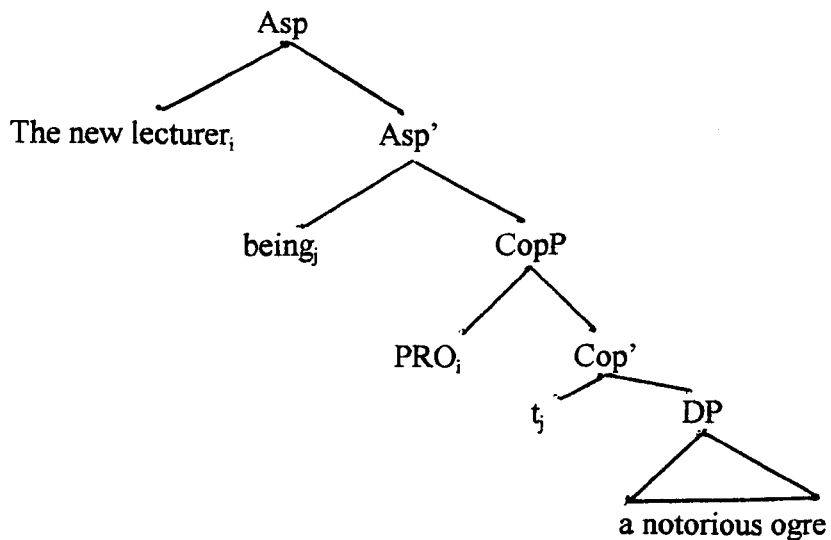
- (77)
- a. The students avoided the syntax module, **the lecturers all being notorious ogres**
 - b. **The students all spending more money on drink than their parents**, it wouldn't be easy to convince them to become teetotallers
 - c. **The females all driving more cautiously than the males**, the insurance company felt justified in offering them lower premiums
 - d. **The children all consuming more soft drinks than the adults**, the supermarket advertisers had an easy target

Assuming that *ing* here is also aspectual and requires checking, the following structure, which differs minimally from the one in (72) and (73) above, is proposed:

(78)



(79)



The minimum amount of functional structure required with individual-level predicates, therefore, is a single projection, namely, AspP, with the subject inserted directly into the specifier. This AspP is needed to check the *ing* affix on the lexical verb in (78), and on the copula in (79). The presence of *-ing* is obligatory in the derivation since it allows the subject to be Case-licensed. Recall from above that only an overtly realised a-telic Asp head (here, Asp realised as *-ing*) can Case-license the subject. Two functional projections appear in (78) (i.e. one to generate copular *be* the other to check *ing*), in spite of the fact that a verb with an EPP feature is not needed with individual-level predicates - this is because *ing* must affix to a verb.⁸³

Finally, a comment on the fact that a PRO subject in place of lexical NP is possible in all of the above Absolutes i.e. regardless of whether the predicate is individual or stage-level, as in (80)a&b respectively, below:⁸⁴

- (80) a. **PRO being notorious ogres**, the syntax lecturers...
 b. **PRO having written the letters**, the children...

In addition, as already noted in 2.1 above, PRO can also occur as subject of examples like (81) below, in which the predicate is stage-level but there is no functional verb:

- (81) **PRO writing a letter (in his study)**, Bill suddenly remembered his dental appointment

What this suggests is that although lexical NP and PRO do not have exactly the same distribution in these adjuncts, they are not in complementary distribution either, contra general assumptions in the literature (originating with Chomsky and Lasnik 1977) which predict that they should be.⁸⁵

⁸³Note that in (79) the lexical CFC is NP (cf the VP in (78)).

⁸⁴Stump refers to the variant with a PRO subject as a Free Adjunct as distinct from an Absolute.

⁸⁵Chomsky and Lasnik (1977) propose a filter which prevents lexical NP and trace, but not PRO, from occurring in the subject position of infinitivals generally (p.478:155) (when the infinitive is complement of a verb like *believe* or *seem* a lexical NP/trace in subject position is not ruled out by the filter because it is assumed that in such contexts there is a null complementiser in C so that, unlike in the general case, the infinitive may be said to be in the domain of a -N category). Their analysis of Control leads to the conclusion that lexical NP and PRO are in fact in complementary distribution. Chomsky (1981) expresses the same idea

Examples like (81) show that the licensing of a PRO subject is less restricted than that of a lexical NP i.e. although the predicate is stage-level, a functional verb (with an EPP feature) is not required. In fact, even the overtly realised a-telic Asp head is not obligatory, given the grammaticality of sentences like: *PRO a writer all his life, Bill was a true man of letters* (we return to these in 5.3.2 below). What this suggests is that when the subject is PRO the Asp head itself bears the EPP feature.⁸⁶ Thus, the null-case feature of PRO is checked against the same head which would check the Case-feature of a lexical NP with the crucial difference that when the subject is lexical the Asp head is obligatorily realised as *ing*.

Summing up this section as a whole, we have shown that the asymmetry with regard to subject Case-licensing in *NP+V-ing* Absolutes illustrated at the outset (i.e. in (2)a&b versus (3)a&b) is most effectively accounted for by rejecting the assumption in the literature generally that these are IPs and by analysing them instead as AspPs. Distinguishing between an in situ subject (individual-level predicates) and a derived subject (stage-level predicates) allows us to explain differences between Absolutes in terms both of the interpretation of bare plural subjects and the kind of verbal structure required for subject Case-licensing in each. When the predicate of an *NP+V-ing* Absolute is stage-level the derivation must include a functional verb, which we have argued bears an EPP feature. This raises the subject out of the lexical projection, hence the availability of a non-generic reading of bare plural subjects. When the predicate is individual-level no functional verb is required because the EPP is satisfied directly via insertion of the subject into

in the form of the PRO theorem which states that PRO does not appear in governed positions (lexical NPs by contrast require government in order to be Case-marked). There have been several challenges to the PRO theorem in the literature e.g. Manzini (1983) argues that PRO is a 'pure anaphor' and therefore comes under the Binding theory i.e. it can be governed (e.g. a PRO_{anb} subject of a 'picture' noun phrase) although it does not have a 'governing category' (on her revised definition of same), hence certain differences in terms of distribution between it and other anaphors. Crucially, PRO also differs from lexical NP in being prohibited from appearing in a Case position. Franks and Hornstein (1992) also allow PRO to be governed in their account of secondary predication in Russian. Our objection to the PRO theorem differs from either of the above: it proposes that both lexical NP and PRO can, in principle, occur in the same Case-marked, clausal subject-position i.e. [Spec, AspP]. This view is supported by the claim in Mohanan (1982) that in certain clausal contexts in Malayalam PRO is in fact governed and not in complementary distribution with lexical NP.

⁸⁶We will argue below that if an Asp head in an Absolute is lexicalised (e.g. *have*) it bears an EPP feature which must be checked by a lexical NP in its specifier. The claim that when the subject is non-lexical i.e. PRO the EPP feature can appear, correspondingly, on a non-overt Asp head, becomes more plausible.

canonical subject position.

Regardless of predicate type, what all *NP+V-ing* Absolutes have in common is the need for an overtly realised a-telic Asp head (*ing*) to Case-license the lexical subject. A PRO subject also has its (null)Case feature checked by Asp but this does not have to be overtly realised. In the next section the above approach is extended to prepositionally augmented Absolutes (e.g. (1)b above).

2.4 Prepositionally Augmented Absolutes

In analysing prepositionally augmented Absolutes here we are only concerned with cases in which the preposition is obligatory for grammaticality, as in (82)a&b below, not with examples like (83)a&b, where it is optional i.e. where omitting the preposition does not affect grammaticality:⁸⁷

- (82) a. **With Ann arriving later**, there would be four guests for dinner
b. **With two professors on leave**, the course must be postponed
c. ***Ann arriving later**, there would be four guests for dinner
d. ***Two professors on leave**, the course must be postponed
- (83) a. **With her hair braided**, Jane must resemble Mary
b. **With the weather being bad**, the game was cancelled
c. **Her hair braided**, Jane must resemble Mary
d. **The weather being bad**, the game was cancelled

It will be argued that in examples of the kind in (82)a&b *with* is a lexicalised Asp head with an EPP feature, and that it moves to C from where it Case-licenses the subject in

⁸⁷Although omitting the preposition in (83a&b) does not affect grammaticality, it does alter the interpretation: Stump (1985) observes that Absolutes can be interpreted as either Strong or Weak i.e. entailed or unentailed. Notice that the Absolute in (83)a can be interpreted *either* as entailed or unentailed i.e. it means *either Since Mary's hair is braided she must resemble Jane or Whenever/if Mary's hair is braided she must resemble Jane*. In (83c), by contrast, only the former interpretation is available i.e. the Absolute is obligatorily interpreted as entailed. Stump proposes that in order for the unentailed reading to be available the Absolute must be prepositionally augmented.

[Spec,AspP] via a pre-LF ECM configuration.

As a preliminary step towards arguing for this analysis, the account of prepositionally augmented Absolutes in McCawley (1983) will first be reviewed (4.1), which, although ultimately to be rejected here, contains two key observations (one relating to constituency, the other to underlying syntactic structure) which will serve as the foundation for proposals here. In the following subsection (4.2), we consider the arguments in Napoli (1988) in favour of distinct underlying structures for examples in which the complement of P is *NP+V-ing* and verbless, respectively (i.e. (82a) versus (82b)), concluding that this claim is not, in fact, justified. Finally, we present our own analysis in which all the relevant prepositionally augmented Absolutes (i.e. *+/-V-ing*) are shown to differ minimally in terms of underlying structure and subject Case-licensing takes place in a (pre-LF) ECM configuration (4.3).

2.4.1 McCawley (1983)

McCawley treats the elements following *with* in each of the highlighted phrases below as constituents of the category $S(=IP)$.⁸⁸

- (84) a. **With strikes taking place in every major city**, the country is falling apart
b. **With Mexico City the largest City in the world..**
c. **With a girl in every port**, Harry feels pretty contented

Evidence cited that they form a constituent is given in (85)a-c, below, showing that together they can be the antecedent of a pronoun, can undergo right node raising and can be the locus of conjoining.^{89,90}

⁸⁸ His examples pp. 273,277&280.

⁸⁹ McCawley's examples pp.272 (based on Riemsdijk 1978, example 99).

⁹⁰ McCawley rejects Riemsdijk's suggestion (Riemsdijk 1978) that in (85)c *with* might have been deleted before the second conjunct.

- (85) a. With [everyone planning on attending], which I hadn't expected, we'll be short of space
 b. I wouldn't want to live in Sicily, with, or for that matter, even without, [Mt Etna erupting]
 c. With [mother in the hospital] and [father in a drunken binge], the family is in bad shape

The claim that the bracketed phrases are actually sentential is also well supported. Taking examples with *NP+V-ing* first, these serve as a cyclic domain for the application of Passive, Raising and *there* Insertion, as in (86)a-c respectively, below,⁹¹ and also as the scope of quantifiers and negation, as in (87)&(88), respectively:⁹²

- (86) a. **With politicians being shot at by snipers every day**, I don't see why anyone would go into politics
 b. **With Gonzalez appearing to know everything about economics**, we could hardly put up a better candidate
 c. **With there being no possibility of advancement in her present job**, Linda is determined to find a new job
- (87) a. **With everyone planning on attending**, we'll be short of space
 b. With [(all x:x a person) (x is planning on attending)] we'll be short of space
 c. *(all x:x a person) [with x planning on attending, we'll be short of space]
- (88) **With no one feeling safe**, everyone stays at home at night

Turning now to examples in which there is no verb, as in (84)b&c above, similar evidence is available that these too are sentential: the bracketed phrase serves as a cyclic domain for raising and extraposition, as in (89)a&b, respectively,⁹³ and also serves as the scope of quantifiers and negation, as in (90)a-c and (91) respectively:⁹⁴

- (89) a. **With John likely to arrive early**, we must hide his present now
 b. **With it obvious that the money is lost**, we don't know what to do
- (90) a. **With everybody on strike**, we're forced to close down
 b. With [(all x:x a person)(x on strike)]we're forced to close down
 c. *(all x: x a person) [with x on strike, we're forced to close down]

⁹¹Examples from McCawley (1983:273).

⁹²(87a) is our own example; (88) is McCawley's (9a).

⁹³(89a) is our own example; (89b) is McCawley's (5d).

⁹⁴(90) is McCawley's (7a). (91) is our own.

(91) **With no one really at ease**, the dinner party was a disaster

On the basis of evidence of the above kind, therefore, McCawley concludes that prepositionally augmented Absolutes are all Ss.

As to the precise character of this S, the main difference assumed between it and finite S is that a morphological requirement prohibits the Absolute from bearing surface tense. The underlying S, therefore, is understood to be tensed, as in finite clauses generally. Prepositionally augmented absolutes of the kind in (84)b&c above, are assumed to have an underlying verb which has been deleted before S-structure i.e. *be* in the first example, possessional *have* in the second (in the latter case a deleted subject, co-referential with the matrix subject is also posited).⁹⁵ This means that the propositions expressed by the Absolutes in (84)b&c are identical to *Mexico City is the largest City in the world* and *Harry has a girl in every port* respectively.⁹⁶

How exactly the subject is Case-licensed in any of the above ((84a-c)) is not explained, but since all are analysed as tensed Ss in the underlying structure, it must be assumed that subject Case-licensing operates as in finite clauses.

At this point we can assess the merits and demerits of McCawley's analysis with a view to incorporating some of his observations into our own account. The evidence that the

⁹⁵The syntactic category S is assumed to require a verb in the underlying structure but not necessarily at S-structure.

⁹⁶The distinction drawn between the two cases is based on the view that the NP *a girl* in (84c) behaves more like an object than a subject when it is preceded by an adverb. The following contrast illustrates the point:

- (i) a. ***With currently Mexico City the largest city in the world...**
b. **With currently a girl in every port**, Harry feels contented

The adverb is ungrammatical when it precedes the subject *Mexico City*, in keeping with a general constraint in English against S-initial adverbs in non-finite clauses. It is grammatical, by contrast, preceding *a girl* in (1b) because this is the object of a deleted possessional *have*. In other words, the adverb is only acceptable in (1b), since here it is not sentence initial but rather modifies VP.

elements following the preposition form a constituent is strong as are the indicators that the proposed constituent is sentential in character. Although both points will be assumed to be correct, here, we do not conclude, as McCawley does, that the syntactic category of the 'sentential' constituent is identical to that of full clauses i.e. S/IP. Evidence in support of this position is provided next.

If prepositionally augmented Absolutes are S/IPs then it follows that they contain a T node like S/IPs generally (assuming that IP is in fact TP, as in Pollock 1989). This seems not to be the case, however: recall the argument from 2.3.2 that the temporal relationship between an adjunct clause and a main clause is different when the adjunct is an unambiguous (CP)TP compared with when it is an *NP+V-ing* Absolute. In the former case the tense of the adjunct clause was shown to be determined independently of the matrix clause, while in the latter it was demonstrated that this seems not to be the case, as there is always a reading in which the tense of the adjunct is interpreted as the same as that of the main clause. This led to the conclusion that the Absolute was unlikely to contain T since if it did it might be expected to exhibit the same potential in terms of temporal interpretation as a tensed adverbial clause. It might also be expected that the temporal interpretation of Absolutes, just referred to, could be accounted for along the lines proposed in Enç (1987) for embedded TPs with a similar potential interpretation (i.e. one in which embedded tense is co-referential with matrix tense). This was shown not to be possible due to the absence of c-command by matrix T of embedded T (or embedded C) in *NP+V-ing* Absolutes. Below we demonstrate that the same argument can be applied to prepositionally augmented Absolutes i.e. that these too do not pattern in terms of temporal interpretation with adverbial clauses which are unambiguously TPs.

(92)a-d below show that the same prepositionally augmented Absolute can modify either a PRESENT or a PAST tense matrix clause. (93)a-d and (94)a-d are designed to demonstrate what the temporal interpretation of the Absolute is in relation to the tense of the matrix clause: examples (93)a-d are identical to (92)a-d with a *PRESENT* tense matrix clause, except for the fact that the Absolute is replaced by its tensed paraphrase; examples (94)a-d are identical to (92)a-d with a *PAST* tense matrix clause, again with the exception

that the Absolute is replaced by its tensed paraphrase:

- (92) a. **With strikes taking place in every major city, the country is/was falling apart**
b. **With two professors on leave, the course must/had to be postponed**
c. **With Mexico City the largest City in the world, it is/was well-known**
d. **With a girl in every port, Harry feels/felt pretty contented**
- (93) a. **Strikes are/#were taking place in every major city (PRES), so the country is falling apart (PRES)**
b. **Two professors are/#were on leave (PRES), so the course must be postponed (present)**
c. **Mexico City is/#was the largest City in the world (PRES), so it is well known (PRES)**
d. **Harry has/#had a girl in every port (PRES), so he feels pretty contented (PRES)**
- (94) a. **Strikes were/?#are ⁹⁷taking place in every major city (PAST/#?PRES), so the country was falling apart (PAST)**
b. **Two professors were/are on leave (PAST/PRES), so the course had to be postponed (PAST)**
c. **Mexico City was/is the largest City in the world (PAST/PRES), so it was well known (PAST)**
d. **Harry had/has a girl in every port (PAST/PRES), so he felt pretty contented (PAST)**

What we see is that the pattern is the same as for *NP+V-ing* Absolutes: when the matrix verb is PRESENT, the tensed paraphrase of the Absolute is obligatorily PRESENT also, as in (93)a-d; when the matrix tense is PAST, the paraphrase of the Absolute can be either PRESENT or PAST in principle (PRESENT is only odd in (94)a). However, as will be demonstrated below, when a PRESENT paraphrase of the Absolute is possible with a PAST matrix tense the actual interpretation of the sentence is such that the two events are nevertheless understood to overlap in time (recall from above that this was also shown to be the case with the corresponding *NP+V-ing* Absolutes).

⁹⁷While this paraphrase of the Absolute in (92a)(with a PAST matrix verb) is odd, if auxiliary *be* in PRESENT tense (followed by the progressive participle) is replaced by auxiliary *be* in PRESENT perfect tense (again followed by the progressive participle) this is more acceptable:

- (i) a. **With strikes taking place in every major city, the country was falling apart (PAST)**
b. **Strikes have been taking place in every major city (PRES), so the country was falling apart (at the time) (PAST).**

Take, first, example (94)b on the relevant reading, given in (95) below:

(95) Two professors are on leave (PRES), so the course had to be postponed (PAST)

Clearly the event of postponing, here, takes place during the interval of time corresponding to the professors' being on leave. This is in spite of the fact that in the tensed paraphrase of the Absolute the postponing event is PAST i.e. prior to speech time, and the 'being on leave' event is PRESENT (i.e. the same as the speech time). Notice that a second paraphrase of the same Absolute, in which a present perfect auxiliary is added to the matrix clause, as in (96), is also possible:

(96) Two professors are on leave (PRES), so the course has had to be postponed (PRES)

What we find in fact is that in (92)b (whether matrix V is PAST or PRESENT) there is a temporal overlap between the event in the Absolute and the event in the matrix clause such that the matrix event takes place some time during the temporal interval of the event in the Absolute. It is therefore a relationship of inclusion. A looser, more descriptive characterisation of it would be to say that the event of the Absolute clause 'temporally surrounds' the event of the matrix clause.

The same argument can be applied to (94) c&d on the readings in which the tensed paraphrases show distinct tense specifications, as in (97)a&b below:⁹⁸

(97) a. Mexico City is the largest City in the world, so it was well known (PAST)
b. Harry has a girl in every port (PRES), so he felt pretty contented (PAST)

In both cases the state referred to in the adjunct is understood to hold over an interval of time which includes the time of the matrix event. In other words the speech time is extended to include the past events of 'being well known' and 'feeling pretty contented', respectively.

⁹⁸And for (94a), as paraphrased in footnote 97, where the event of the country falling apart takes place during the time of the strikes taking place.

In order to get this result no T head is required in the syntax. In fact, as explained in 2.3.2 above, if a T head were present then the prediction on Enç's system would be that the obligatorily available reading, in which both matrix and embedded tense are identical, should not arise - firstly, because this is different from the potential interpretation of tensed adjuncts; secondly, because matrix T does not c-command embedded T (or C). Our conclusion is therefore that prepositionally augmented *NP+V-ing* Absolutes do not contain T.

A second problem with McCawley's analysis concerns the assumption that in all verbless Absolutes there is a deleted verb in the underlying structure (e.g. in (84)a&b), this most typically being copular *be*. As he acknowledges himself (p.281), applying this theory to examples like (98)a below is not a straightforward matter, because in this case, unlike all the others discussed, there is no corresponding example in which the proposed verb is overt.⁹⁹

- (98) a. **With Schwarz as goalie**, our team is sure to lose
 b. ***With Schwarz being as goalie**, our team is sure to lose

In order for such examples to be accommodated McCawley proposes that *be* converts to *as* in examples like (98)a so that both *be* and *as* do not occur simultaneously at any point in the derivation.¹⁰⁰

It seems clear that if a rule of *be* deletion, with its tailor-made restrictions for examples like (98)a (i.e. conditional replacement of *be* with *as*), can be avoided, while at the same time giving expression in the syntactic analysis to the obvious parallels identified by McCawley in terms of constituent structure and 'sentential' character between all of the

⁹⁹McCawley's example (27a).

¹⁰⁰Specific conditions restricting the occurrence of conversion from *be* to *as* (rather than simply *be* deletion) are posited to explain why it applies to a limited set of cases only: *as* can appear when copular *be* takes a predicate NP or N' *and* provided that its subject is also a theme (on a definition of theme attributed to Gruber (1976), ruling out the following examples (p.281):

- (i) a. ***With Reagan as eating jellybeans...**
 b. ***With all of your children as students** you must have a hard time making ends meet

In (i)a the predicate is a VP and in (i)b *children* is not considered to be a theme on the relevant definition.

above examples and IPs generally, then it should indeed be avoided. For this reason, we reject the claim that such a rule is involved either in (84)a&b or (98)a.¹⁰¹ Before coming to the details of our own analysis (4.3) we review, in the next subsection, the very different account of positionally augmented Absolutives proposed in Napoli (1988).

2.4.2 Napoli (1988)

Napoli's analysis is of interest here because, unlike McCawley's, and contra our own, the elements following the preposition are only treated as a constituent when they contain *V-ing*, as in (99)a below. The verbless ones, by contrast, are given a ternary branching structure, illustrated in (99)b, in which P takes an NP and predicate phrase as complement:¹⁰²

- (99) a. [_{PP}With [_Syour brother [_{VP}having lost everything]]]
 b. [_{PP}With [_{NP}the bus drivers] [_{PP}on strike]]...

In drawing this distinction, Napoli attempts to capture certain differences between the two types of Absolute relating to the kind of subject which can occur in each.¹⁰³ The claim that (99)a (with an optional preposition) is structurally distinct from (99)b is based on the theory that two types of relationship are possible between an NP and its predicate, one

¹⁰¹The proposal that examples like (84c) involve deletion of underlying *have* may actually be correct given the fact, noted by McCawley, that the NP in the Absolute behaves more like an object than a subject with regard to adverb placement (see footnote 98 above). *With three brothers and sisters, Harry had little time to himself* (see McCawley: 1983:277) is another example of the same kind. This means that before PF it would be an NP+V-ing Absolute with an optional preposition (in our terms) and that the subject would be Case-licensed as proposed in 2.3 above.

¹⁰²Emonds (1985) also assumes a ternary branching structure for Absolutives of the kind in (99b). He discusses the following example:

- (i) How can you work, **with children in the room**?

With is treated as a lexical category assigning a theta role to its second complement PP. The head of the latter PP assigns an external theta role to the first complement i.e. the NP *children*, which in turn is Case-licensed by *with*. Note that Napoli, by contrast, does not analyse *with* as a theta assigner.

¹⁰³Although Napoli is not particularly concerned with the issue of subject Case-licensing in Absolutives, it is to be assumed that in (99)a the subject gets Case along the lines proposed in Reuland (1983) (Reuland is cited as a source for the S/IP structure adopted), while in (99)b it is Case-licensed by P and gets its theta role from the phrase *on strike*.

structural (as in (99)a), involving a grammatical function subject and its structural predicate; the other semantic (as in (99b)) where a predicate assigns a theta-role to a 'subject' argument. Napoli argues that Grammatical function subjects can be A-thematic while 'subject' arguments obligatorily receive a theta-role. What she proposes therefore is that the former are in [Spec, IP], like the subjects of clauses generally, while the latter are not.¹⁰⁴

In fact, as will become evident in due course, Napoli's observations on the distribution of A-thematic versus thematic subjects in Absolutes like (99)a&b are not incompatible with the account of prepositionally augmented Absolutes which we are in the process of developing here. The crucial difference between Napoli's approach and ours is that for her the distribution of A-thematic versus thematic subjects in Absolutes leads to the conclusion that (99)a is an IP and (99)b is a ternary branching structure (without an IP) while for us it does not. We simply find the distribution of subject types found in the data discussed consistent with our own analysis in which the functional structure of both Absolutes is essentially the same (both will be analysed further below as clausal AspPs). The absence of A -thematic subjects in examples like (99)b, on our account, rests ultimately with the fact that these are verbless phrases.¹⁰⁵ Below we first summarize briefly

¹⁰⁴It should be noted that Napoli rejects the notion of small clause found in Chomsky (1981) and Stowell (1982a), according to which the italicised phrase in the following is a small clause complement of V:

(i) John considers/believes [_{SC/AP}*Mary honest*]

On Napoli's approach (i) has the following structure:

(ii) John [_{VP}considers/believes [_{NP}Mary] [_{AP}honest]]

¹⁰⁵We have already argued above that the subject of a stage-level predicate originates within the lexical projection (from where it must move to satisfy the EPP and for Case-licensing). When the prepositionally augmented Absolute is *NP + V-ing* then there is no reason why the A-thematic subjects expletive *there* and the raising *it* of raising verbs should not occur as subject, provided the predicate is stage-level. This is because *there* or *it* can satisfy the proposed EPP feature on the functional verb, and the thematic subject can remain in situ (e.g. *there being doctors available*...). *There* (or *it*) is not predicted to occur when the predicate is individual-level because the thematic subject will be inserted directly into formal subject position (where it will satisfy the EPP directly) e.g. *doctors being intelligent*. A different situation arises in prepositionally augmented verbless Absolutes. We will argue below that Absolutes which are obligatorily augmented by a preposition (e.g. (99b)) are always stage-level. The only way the subject of such an Absolute can remain in the lexical projection is if some other element e.g. expletive *there* or raising *it*, satisfies the EPP by appearing as formal subject (we will argue below that the EPP feature in Absolutes which are *obligatorily* augmented by a preposition is on *with* (cf. auxiliary *have*)). However, since the Absolute is verbless these are arguably not predicted to occur (*there* arguably must be licensed by a verb, and raising *it* occurs with raising verbs - we return to this last point below in the course of reviewing Napoli's theory). Thus, it may be the case that

the main points of Napoli's theory and then argue specifically against the structure proposed in (99)b above.

Three types of A-thematic subject are identified i.e. expletive *there*, raising *it* and the subject of an unanalysable idiom. These are then tested in the subject position of the two types of Absolute in order to determine which of the proposed subject-predicate relations is involved (i.e. structural or semantic).¹⁰⁶ Expletive *there* in subject position is shown to be possible in prepositionally augmented *NP+V-ing* Absolutes but not verbless ones.¹⁰⁷

- (100) a. **With there being no possibility of advancement in her present job**, Linda is determined to leave
b. ***With there another problem**, their divorce is assured

Raising *it*, similarly, is claimed to be ruled out in verbless examples like (99)b, only.¹⁰⁸ In reaching this conclusion Napoli assumes that the *it* appearing as subject of predicates like *likely* and *certain* is in fact extraposition *it* not raising *it* and so is actually thematic. The fact that, unlike raising *it*, it can be replaced by a sentential subject, is cited as evidence:¹⁰⁹

- (101) a. It is likely/certain that Mary will turn up
b. That Mary will turn up is likely/certain
c. It seems that Ralph skimmed the milk
d. ***That Ralph already skimmed the milk seems**

prepositionally augmented verbless Absolutes do not have the uncontroversial A-thematic subjects just referred to because these require a verb in the predicate.

¹⁰⁶Apart from the test for potential to allow A-thematic subjects, Napoli further distinguishes between the two types of Absolute((99a&b)) on the basis of potential to allow a referential NP, of the kind occurring in equative sentences, to appear in the predicate position. Prepositionally augmented *NP+V-ing* Absolutes allow this but not prepositionally augmented verbless ones (Napoli's examples pp.342-343):

- (i) a. **With your Aunt being Miss Prothero**, lets light a fire
(ii) b. ***With Jocasta Oedipus' mom**, the poor guy was doomed

It could of course be argued here that equative sentences require the presence of the copula to set up the 'equation'. In other words the problem might not be that the subject of (ii) is merely a semantic subject but rather that the copula is missing.

¹⁰⁷Her examples p.342.

¹⁰⁸It is clear that when the complement of P is *NP+V-ing*, raising *it* is perfectly grammatical :

- (i) **With it at least appearing that John knows economics well**, we should nominate him (Napoli's example (44b))

¹⁰⁹(101c&d) are Napoli's examples (2a&d).

It is further assumed that when the S-structure subject of *likely* or *certain* has moved into this position from a lower clause, as in (102), below, it receives two theta roles i.e. one from the lower argument structure and another from the higher one i.e. the subject position of the raising adjective is thematic (cf. raising verbs like *seem* and *appear*):¹¹⁰

(102) **With John_i likely t_i to fail....**

Prepositionally augmented verbless Absolutes with *it* as subject and *likely* as predicate (e.g. *With it likely that...*) and those like (102) above in which *John* has raised into the subject position of the Absolute, are therefore not considered to be counter-examples to the claim that prepositionally augmented verbless Absolutes only allow thematic subjects:

Finally, Napoli proposes that the subject of an unanalysable idiom is possible in prepositionally augmented *NP+V-ing* Absolutes but not in verbless ones.¹¹¹

(103) a. **With mum being the word**, we don't have to worry
b. ***With mum the word**, we can count on silence

On the basis of these three tests it is concluded that A-thematic subjects are only possible in prepositionally augmented Absolutes with *NP+V-ing* and that these alone have the same structure as clauses generally i.e. S/IP (since S/IPs also have A-thematic subjects); hence, the two structures in (99)a&b above.

As is clear from the summary above, Napoli's proposal that A-thematic subjects do not

¹¹⁰My examples. Napoli does not provide an example of Absolutes with *likely* as predicate because she assumes that the subject position of this predicate is thematic i.e. her intention is to test A-thematic subjects in Absolutes of this kind to show that they are not grammatical, not thematic ones.

¹¹¹Napoli's examples pp. 342-342. Other examples of unanalysable idioms cited by Napoli are:

- (i) Little pitchers have big ears
- (ii) The jig is up
- (iii) They put on the dog and combed its tail

They are identified as unanalysable on the grounds that you cannot 'play with' the NPs involved and extend the idioms in creative ways. This leads to the conclusion that the NPs in unanalysable idioms do not in general bear theta roles.

occur in prepositionally augmented verbless Absolutes is supported by the data. This, as indicated above, is not inconsistent with our own theory.¹¹² However, the absence of A-thematic subjects (generally) in verbless prepositionally augmented Absolutes should not, in our view, lead to the conclusion that these have a different underlying structure from *NP+V-ing* Absolutes, for the following reasons: firstly, it may be impossible to find verbless Absolutes with expletive *there* simply because these are verbless phrases. If a verb were needed to sanction *there* then it would be prohibited independently of the fact that it is a-thematic (Napoli acknowledges this possibility herself (p.335)). Secondly, the claim that raising *it* is prohibited *per se* in examples like (99)b cannot be proven since this is a verbless environment rendering tests with the classic raising elements *seem* and *appear* impossible by definition. If the *it* occurring with *likely* and *certain* were indeed raising *it* (contra Napoli) rather than extraposition *it*, then her analysis could not be sustained.¹¹³ Finally, (103)b might be ungrammatical simply because the (tensed) copula is an integral, obligatory part of the idiom ('Mum's the word'). Since it must be omitted in a prepositionally augmented verbless Absolute then it will inevitably be ungrammatical.¹¹⁴

We come now to our arguments against the ternary branching structure posited by Napoli for prepositionally augmented verbless Absolutes. Firstly, if it were correct, then McCawley's evidence (cited in 4.1 above), in support of the claim that the NP and predicate form a constituent, must be completely overlooked (these together can be the antecedent of a pronoun, can undergo right node raising and can be the locus of conjoining). In fact, although Napoli refers to McCawley (1983), no reference is made to the constituency tests carried out there.

Secondly, in examples like (102), repeated below, the subject would have to raise out one complement of P (i.e. AP) into the position of DP complement to P:¹¹⁵

¹¹²See footnote 108 above.

¹¹³On our account of the absence of a-thematic subjects generally in prepositionally augmented verbless Absolutes (see footnote 108 above) it is not necessary for the *it* occurring with *likely* and *certain* to be analysed as extraposition *it*.

¹¹⁴Notice that the other unanalysable idioms identified by Napoli also include verbs (see footnote 111) and therefore, like *mum's the word*, will be prohibited, by definition, in these Absolutes.

¹¹⁵Compare this with the analysis in Emonds (1985), referred to above (footnote 102).

(104) [_{PP}With [_{DP}John_i] [_{AP}likely [_{t_i} to fail]]]....

Although this specific example is not discussed by Napoli, she does make available an account of such cases in her analysis of (105), below, which also involves movement out of one complement of P (i.e. VP) into the position of DP complement to P:

(105) With [_{DP}the only bed_i] [_{VP}slept in _{t_i}by lepers], let's stay awake

Movement of this kind is not considered to be problematic on the grounds that the preposition does not assign a theta-role to its object DP. In (104) and (105), therefore, P would s-select the predicate (i.e. AP and VP respectively) but not the DP object, which has moved into this position from within the predicate.¹¹⁶

Given that this is at variance with the constituency facts, and that a clausal analysis of these Absolutes would obviate the need for movement into object of P position, Napoli's ternary branching structure is not convincing. In the next subsection we present arguments in support of our proposal that both are AspPs and that the subject (in [Spec, AspP]) is Case-licensed by P, via a (pre-LF) ECM configuration.¹¹⁷

2.4.3 Prepositionally augmented absolutes: our analysis

The following three points, already argued for above, are taken into account in the structure which will be proposed below for prepositionally augmented Absolutes: i) that the subject of a stage-level predicate is raised out of the lexical projection prior to Case-licensing (see 3.3); ii) that the elements following the preposition form a constituent and that this is 'sentential' in character (4.1); iii) that prepositionally augmented Absolutes do not contain

¹¹⁶An analogy is drawn with the following example (Napoli's footnote 5) in which V is understood to s-select AP and AP in turn assigns a theta-role to NP. V Case-marks its NP object:

(i) I [consider [John] [nice]]

¹¹⁷The Case feature of ECM licensed subjects will move at LF for checking either to AgroP or to an outer specifier of the head with the Case feature.

a T node (4.1).

Bearing the above in mind, the first step here will be to demonstrate that prepositionally augmented *NP+V-ing* Absolutes always have a stage-level predicate when the preposition is obligatory for grammaticality (i.e. in the cases we are concerned with here); this means that the subject must be raised out of the lexical projection prior to Case-licensing (4.3.1). We will then show that obligatory *with* and the functional verb forms *have+ing* and copular *be+ing* are in complementary distribution in these Absolutes. This means that subject-raising via the proposed EPP feature on functional verbs (and, consequently, subject Case-licensing of the kind already proposed for unaugmented *NP+V-ing* Absolutes)¹¹⁸ is not available in prepositionally augmented *NP+V-ing* Absolutes (4.3.2). It is then argued that the semantic and syntactic properties of (obligatory) *with* in prepositionally augmented *verbless* Absolutes are: firstly, to indicate that there is a temporal overlap between the event in the Absolute and the event in the main clause; secondly, to provide the EPP feature which raises the subject out of the lexical projection, and thirdly, to Case-license the subject in a (pre-LF) ECM configuration. This analysis is finally extended to obligatory *with* in *NP+V-ing* Absolutes, leading to the conclusion that obligatory *with* in all of the Absolutes under consideration has semantic and syntactic functions of the kind already proposed for *have-ing* and *be-ing* (4.3.3).

2.4.3.1 Prepositionally augmented *NP+V-ing* Absolutes and stage-level predicates

All the *NP+V-ing* Absolutes obligatorily augmented by a preposition which have been considered thus far can be cited as evidence in support of the claim that the predicate, in such cases, is stage-level. The fact that when a bare plural subject appears in each, as in (106)a-e below, it has an existential reading, confirms this observation:¹¹⁹

¹¹⁸ Namely, in the specifier of a (Case-licensing Asp) head overtly realised as *ing* following movement from the specifier of the projection which generates the functional verb.

¹¹⁹ In fact Diesing (1992:140:ftn17) suggests that *with* clauses (our Absolutes) are generally bad with individual-level predicates, as illustrated in the following:

(i) a. **With firemen available**, we are well protected against immolation

- (106) a. **With girls writing the letters**, the boys are jealous
 b. **With strikes taking place in every major city**, the country is falling apart
 c. **With friends arriving later**, there will be four guests for dinner
 d. **With politicians being shot at by snipers every day**, I don't see why anyone would go into politics
 e. **With relatives planning on attending**, we'll be short of space

By contrast, when the preposition is optional before an *NP+V-ing* Absolute, as in (107)a-d, below, either an individual or stage-level predicate is possible, the first two examples illustrating the former, the second two the latter:

- (107) a. **(With) lecturers on syntax being notoriously low markers**, the students avoided the syntax module
 b. **(With) children being the biggest consumers of junk foods**, nutrition should be taught in primary schools
 c. **(With) firemen being available**, the blaze was soon under control
 d. **(With) food parcels having been flown in from Britain,..**

b. ***With firemen intelligent**, we have nothing to fear

However, bearing in mind the individual-level predicates of the *P+(NP+V-ing)* examples in (107)a&b below, this generalisation has been modified here to the stronger claim that if *with* is obligatory the predicate is stage-level. The following example, with an individual-level predicate from McCawley (1983:275) (modified) is an apparent exception (both to Diesing's and our claim), since obligatory *with* occurs with an individual-level predicate:

(ii) **With Mexico City the largest City in the world**, it costs a lot to run

The assumption that the predicate is indeed individual-level is supported by the fact that a bare plural subject in a similar example is interpreted as generic:

(iii) **With children the biggest consumers of junk food**, nutrition should be taught in the schools

Notice, however, that when the superlatives are omitted from both (ii) and (iii), as in (iv)a&b below, the result is less acceptable, and in fact very odd:

- (iv) a. ??**With Mexico City large (and populous)**, it costs a lot to run
 b. ??**With children big consumers of junk food**, nutrition should be taught in the schools

Inserting copular *be* renders both (iv)a&b perfectly acceptable and the *with* becomes optional:

- (v) a. **(With) Mexico City being large (and populous)**, it costs a lot to run
 b. **(With) children being big consumers of junk food**, nutrition should be taught in the schools

Since *with* in (v)a&b is optional the fact that the predicate is individual-level does not constitute a counter-example to our claim (although it does to Diesing's). The conclusion we draw from the data above is that although obligatory *with* is actually possible before an Absolute with an individual-level predicate when the predicate contains a superlative, as in (ii) and (iii) above, this is attributable to some specific property of superlatives and does not detract fundamentally from our observation that stage-level predicates are the norm in this environment.

Notice how the bare plural subjects in (107)a&b are interpreted as generic only, while the most natural reading of the ones in (107)c&d is existential, supporting the characterisation of the predicates as individual and stage-level respectively.¹²⁰

The fact that a floating quantifier can appear below the subject and preceding the verb, as in (108)a-e below indicates that by Spell-out the subject of the Absolutes in (106)a-e has moved out of [Spec, VP]:

- (108)
- a. **With the girls all writing letters**, the boys have nothing to do
 - b. **With the strikes all taking place in major cities**, the country is falling apart
 - c. **With my friends all arriving later**, there will be four guests for dinner
 - d. **With the politicians all being shot at by snipers**, I don't see why anyone would go into politics
 - e. **With my relatives all planning on attending**, we'll be short of space

Moreover, the *ing* affix in (106)a-e (and (108a-e)) clearly marks a-telicity, as the following progressive paraphrases of each Absolute demonstrate:

- (109)
- a. **The girls are writing the letters**, so the boys have nothing to do
 - b. **Strikes are taking place in every major city**, so the country is falling apart
 - c. **Friends are arriving later**, so there will be four guests for dinner
 - d. **Politicians are being shot at by snipers every day**, so I don't see why anyone would go into politics
 - e. **Relatives are planning on attending**, so we'll be short of space

Since the aspectual feature associated with the inflection must be checked, then it can be assumed that there is an AspP dominating VP which provides the appropriate checking domain for that feature. The question which must be answered next is why the subject in (106)a-e raises into [Spec, AspP].¹²¹

Recall from 2.3.4.1 that in the Absolutes with stage-level predicates discussed thus far

¹²⁰See reference to Carlson (1980) and Diesing (1992) in 2.1.1, above, re the correlation between the interpretation of bare plural subjects and stage-level predicates.

¹²¹In fact, we will argue further below that the subject simply moves through the specifier of the Asp head which checks the a-telic feature associated with *ing* i.e. that this is not actually the position in which the subject is Case-licensed and appears at Spell-out

raising out of the lexical projection has been attributed to the presence of an EPP feature in the derivation. There it was argued that although the subject of unaugmented *NP+V-ing* Absolutes moves for Case-licensing into the specifier of the projection which generates *ing*, *ing* does not itself have the potential to satisfy the EPP. That is to say, although *ing*, like +finite Infl, checks the Case of the subject of unaugmented *NP+V-ing* Absolutes, unlike +finite Infl, it does not have an EPP feature. A parallel was drawn, in this respect, with -finite Infl/T since in infinitival clauses the EPP feature and the Case-checking feature are also found on distinct heads.

Returning now to the prepositionally augmented Absolutes above: our hypothesis is that the EPP feature in these examples is on *with*. This being the case, our first step below will be to demonstrate that (obligatory) *with* and *have-ing/be-ing* (which provides the EPP feature in *NP+V-ing* Absolutes with stage-level predicates) are in complementary distribution in prepositionally augmented *NP+V-ing* Absolutes.

2.4.3.2 Complementary distribution of (obligatory) *with* and *have/be-ing*

As is clear from (106)a-e above, prepositionally augmented *NP+V-ing* Absolutes do not obligatorily include a functional verb. In fact, when auxiliary *have* or copular *be* are applied to the stage-level predicates of Absolutes like those in (106)a-e above, obligatory *with* becomes optional:

- (110)
- a. **(With) the girls having written the letter**, the boys were jealous
 - b. **(With) strikes having taken place in every major city**, the country was falling apart
 - c. **(With) friends having arrived later**, there were four guests for dinner
 - d. **(With) politicians having been shot at by snipers every day**, I don't see why anyone would go into politics
 - e. **(With) relatives having planned on attending**, we were going to be short of space

What this means, effectively, is that the obligatory preposition and the functional verb

forms *have+ing* and copular *be+ing* are in complementary distribution in these Absolutes. Recall now the three main functions attributed above to *have+ing* and copular *be+ing*: firstly, to indicate that the event in the Absolute overlaps temporally with the event in the matrix clause (this is a property of the Asp head overtly realised as *-ing*); secondly, to raise the subject out of the lexical projection (via the proposed EPP feature on the verbs *have* and copular *be*); and thirdly, to make Case-licensing of a subject in [Spec, AspP] available via the overt realisation of the Asp head as *ing*.¹²² The complementary distribution of obligatory *with* and these functional verb forms in Absolutes leads us to the argument in the next subsection that obligatory *with* in prepositionally augmented Absolutes has similar semantic and syntactic functions to the functional verbs.

2.4.3.3 (Obligatory) *with* as Asp-generated, +EPP feature and +ECM Case-licenser.

We begin here by arguing that (obligatory) *with* in prepositionally augmented *verbless* Absolutes has similar semantic and syntactic properties to those posited above for the functional verb forms *be-ing* and *have-ing* (3.1). This will lead to the proposal further below that (obligatory) *with* in prepositionally augmented *NP+V-ing* Absolutes is Asp-generated, has an EPP feature and Case-licenses the subject (in a pre-LF ECM configuration) (3.2).

2.4.3.3.1 *With* before *verbless* Absolutes

The semantic function of (obligatory) *with* in prepositionally augmented *verbless* Absolutes is arguably the same as that of *ing* in *NP+V-ing* Absolutes. We have already seen in 4.3.2 that *verbless* Absolutes introduced by (obligatory) *with* have the same temporal relationship with the matrix clause as *NP+V-ing* Absolutes - i.e. there is always a temporal overlap between the matrix and the Absolute event (see discussion above on the *verbless* Absolutes

¹²² Recall that this AspP dominates the functional projection which generates *have/(copular)be*.

in (92b-d)). Observe now how the *NP+V-ing* Absolutes in (111)a, (112)a, and (113)a below are all exactly paraphrased by the verbless Absolutes introduced by *with* in (111)b, (112)b, and (113)b:

- (111) a. **Two professors being on leave**, the course must be postponed
b. **With two professors on leave**, the course must be postponed
- (112) a. **The bus drivers being on strike**, we walked to work
b. **With the bus drivers on strike**, we walked to work
- (113) a. **John being likely to fail**, his parents are preparing themselves for disappointment
b. **With John likely to fail**, his parents are preparing themselves for disappointment

Removing *be-ing* and inserting (obligatory) *with* in these examples produces a grammatical sentence in which the Absolute expresses exactly the same proposition as its +*V(functional) -ing* counterpart and has exactly the same temporal relationship with the matrix clause as it. If *with* is indeed the element which in the verbless examples bears the meaning associated with the above-mentioned temporal interpretation it is reasonable to propose that, like aspectual *have* (and *ing*), it is generated under Asp. It might, alternatively, be generated under C, as a prepositional complementiser (like *for* before non-finite IP). However, as will become clear directly below, analysing it as Asp has a distinct advantage over analysing it as a prepositional complementiser.

Recall from above the conclusion that all *NP+V-ing* Absolutes augmented by obligatory *with* have stage-level predicates and that the subject has raised out of the lexical projection by Spell-out. Not surprisingly, the evidence suggests that this is also true of *verbless* prepositionally augmented Absolutes: bare plural subjects receive an existential reading, as illustrated in (114)a-c, and a floating quantifier can intervene between the subject and the predicate, as in (115)a-c:

- (114) a. **With professors on leave**, the course must be postponed
b. **With bus drivers on strike**, we walked to work
c. **With students likely to fail**, parents are preparing themselves for disappointment

- (115) a. **With the professors almost all on leave**, the course must be postponed
b. **With the bus drivers almost all on strike**, we walked to work
c. **With the students almost all likely to fail**, parents are preparing themselves for disappointment

It can be assumed, therefore, that here also the subject moves out of the lexical projection. Consider now what the motivation for this movement might be. An analogy with movement of a subject into [Spec, IP] of a non-finite clause seems pertinent because in both contexts movement is into the specifier of a head which does not check Case in a spec-head configuration (i.e. -finite Infl in the non-finite Clause, and Asp (overtly realised as *with*) in the verbless Absolute. The most plausible reason for the movement is that *with*, like *have* in Absolutes and -finite Infl in infinitival clauses, has an EPP feature.

The evidence suggests that only a lexicalised Asp head has an EPP feature. This explains why, as already illustrated above, *ing* alone (i.e. affixed to a lexical verb in *NP+V-ing* Absolutes without *have/(copular) be*) is not sufficient to license a subject (see (75)a&b). Recall the argument above that *ing* has the potential to check the Case feature of the subject but it does not have the EPP feature needed to attract the subject out of the lexical projection. Our conclusion is therefore that (obligatory) *with*, like aspectual *have*, is inserted under Asp and has an EPP feature which raises the subject into [Spec, AspP].

Since *with* precedes the subject at Spell-out it follows that it must move to C in the course of the derivation, arguably to check some feature linking it to Comp. The most likely possibility is that Comp has a (strong) Asp feature which must be eliminated via pre LF adjunction of Asp to Comp. If *with* were inserted directly into C then there would be no principled way of explaining what motivates the subject to move out of the lexical projection and into a (pre-LF) ECM configuration from where it can be Case-licensed. We turn now to the claim that in prepositionally augmented verbless Absolutes the preposition checks the Case feature of the subject of the Absolute in [Spec, AspP].

There are two facts which when considered together provide strong support for this view:

firstly, *with* is obligatory, and secondly, PRO is prohibited in this position, just as it is prohibited in the specifier of a non-finite IP complement of the prepositional complementiser *for*. The comparison with the complementiser *for* is illustrated in (116)a-c and (117)a&b, below.¹²³

- (116) a. ***With PRO on leave**, the course must be postponed
b. ***With PRO on strike**, we walked to work
c. ***With PRO likely to fail**, parents are preparing themselves for disappointment

- (117) a. *For PRO to do that, John would have to work very hard
b. *John preferred for PRO to leave early

Since lexical NP and PRO are in complementary distribution in prepositionally augmented Absolutes a contrast arises with *NP+V-ing* Absolutes where, in principle, either subject type has been shown to be possible.

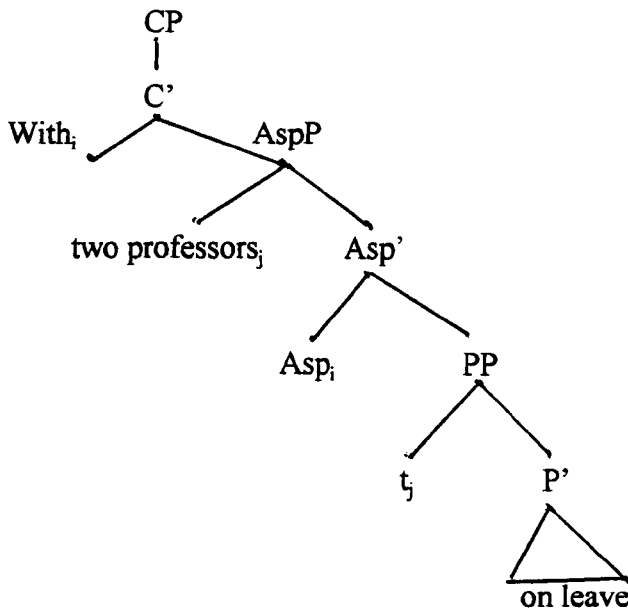
An obvious difference between the two contexts is that in *NP+V-ing* Absolutes Case-checking takes place between a purely functional head (Asp) and an NP in its specifier, while in the Absolutes above, not only is the (pre-LF) configuration different, but the Case-checker itself i.e. *with* is a full lexical item compared with *ing* which is simply an affix. Thus, although *with* is generated under a functional head it has properties in common with a preposition (cf. *for* before an infinitival clause), which in terms of the lexical versus functional distinction among categories generally, is typically classified as lexical. Notice, for example, that apart from the fact that it is an independent lexical item rather than an affix, it also checks an accusative Case feature on the embedded subject in exactly the same way that a lexical category like *believe* does (cf. +finite T which checks Nominative Case). The subject of the prepositionally augmented Absolutes are therefore, in the relevant sense, objects of a 'preposition'. Without reaching a conclusion here as to what exactly it is that excludes PRO from certain positions, it seems clear that it never appears as object of a lexical, Case-licensing element i.e. V or P (in GB terms: it never appears in positions

¹²³There are some dialects of English which allow both of the examples in (117a&b).

governed and Case-licensed by a lexical head),¹²⁴ and therefore should not be expected to do so here.

Our conclusion is, therefore, that verbless Absolutives obligatorily augmented by a preposition have the following underlying structure in which the subject is Case-licensed by *with* via a (pre-LF) ECM configuration:

(118) a.



There are two main points of contrast between (118) and (72) above (i.e. *NP+V-ing* with a stage-level predicate), the first concerning structure, the second, Case-licensing: in (118) there is only one AspP (to generate *with*), while in (72) there are two - one to generate the functional verb, the other to generate *ing*; ii) in (119) Case-licensing is via a (pre-LF)ECM configuration while in (72) Case-licensing takes place in a spec-head configuration. Finally we come to the claim that *with* in prepositionally augmented *NP+V-ing* Absolutives

¹²⁴For example, all the following are ungrammatical:

- (i) a. *John_i loved PRO_i
- b. *John_i likes to talk to PRO_i
- c. *John_i believed PRO_i to be intelligent

That PRO is also prohibited in environments other than the above is clear e.g. it cannot occur as subject of a finite clause. One way of unifying the prohibited positions would be to assume that finite T, unlike other functional heads (e.g. Asp or non-finite T), is syntactically the equivalent of a lexical Case-assigner.

is also generated under Asp.

2.4.3.3.2 *With* before *NP+V-ing* Absolutes

Four important facts about *NP+V-ing* Absolutes introduced by obligatory *with* (examples repeated in (119) below) have already been established: i) they have stage-level predicates; ii) the subject moves out of VP; iii) there is an AspP (with the head overtly realised as *ing*) dominating VP; iv) the temporal relationship between the main clause and the Absolute is such that the two events are always understood to overlap in time.

- (119) a. **With girls writing the letters**, the boys are jealous
b. **With strikes taking place in every major city**, the country is falling apart
c. **With friends arriving later**, there will be four guests for dinner
d. **With politicians being shot at by snipers every day**, I don't see why anyone would go into politics
e. **With relatives planning on attending**, we'll be short of space

A difference between the a-telic Asp head realised as *ing* on the lexical verbs of these Absolutes and the *ing* found on all the unaugmented *NP+V-ing* Absolutes discussed above (see section 2.3) is that in the latter Case *ing* was shown to have the semantic function of indicating the temporal overlap between the two events, while in the former, as illustrated in (109)a-e above, *ing* marks progressive Aspect. Clearly *ing* as a marker of progressive Aspect does not in other (adjunct) environments bear the additional meaning that the event it refers to overlaps with the event in the main clause:

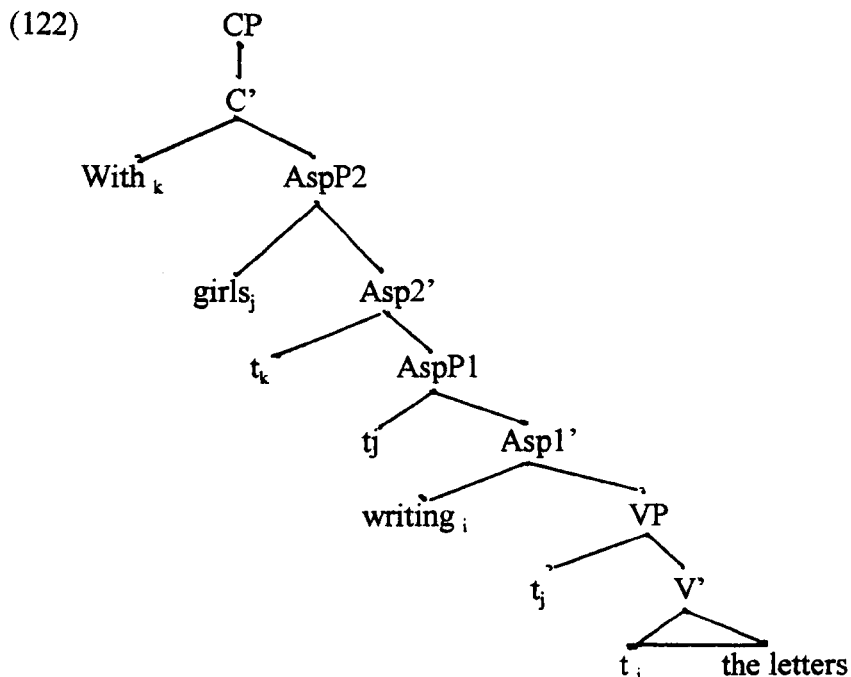
- (120) a. Although John is running fast, he will not reach the finishing line first
b. Because John was cheating the supervisor cancelled his paper

Thus, although the event in each of the Absolutes of (119)a-e is actually interpreted as overlapping temporally with the event of the matrix clause, this cannot simply be attributed to the Asp head which generates progressive *ing*. Since in the case of verbless Absolutes obligatory *with* has already been identified as an Asp head bearing the relevant meaning, the obvious conclusion to draw is that *with* is also Asp when, as in (119)a-e, it introduces *NP+V-ing*.

The analogy between obligatory *with* in the two contexts can be extended further. Given the evidence that the subject of prepositionally augmented *NP+V-ing* Absolutes moves out of the lexical projection, we can assume that here also there is an EPP feature present on some head in the derivation. Recall that obligatory *with* before *NP+V-ing* Absolutes is in complementary distribution with the functional verbs *have/(copular)be*, and that in unaugmented *NP+V-ing* Absolutes these functional verbs have been shown to bear an EPP feature. What we propose therefore is that *with* in prepositionally augmented *NP+V-ing* Absolutes, as in prepositionally augmented verbless ones, bears an EPP feature which causes the subject to move into its specifier (i.e. [Spec, AspP]. Notice that PRO is prohibited as subject in these Absolutes also:

- (121)
- a. ***With PRO writing the letter**, the girls could not go out
 - b. ***With PRO taking place in every major city**, the strikes were bringing the country to its knees
 - c. ***With PRO arriving later**, the four friends missed dinner
 - d. ***With PRO being shot at by snipers every day**, the politicians regretted their decision
 - e. ***With PRO planning on attending**, the relatives were not free to get on with their work

This suggests that, in addition to bearing an EPP feature, *with* also checks Case on the lexical NP subject of the Absolute (following movement to Comp). (121)a-e are ungrammatical, therefore, because in the absence of a lexical subject *with* fails to eliminate its Case feature. The structure we propose for *NP+V-ing* Absolutes augmented by obligatory *with* is therefore as illustrated below:



The main difference between this structure and the one proposed above for prepositionally augmented verbless Absolutives is that here there are two AspPs dominating the lexical projection, one overtly realised as the progressive marker *ing*, the other lexicalised as *with* (in the verbless counterpart there is a single AspP which generates *with*). Subject Case-licensing takes place in the same way for both, namely, via a (pre-LF) ECM configuration in which *with* is under C.

The claim that Absolutives augmented by obligatory *with* (whether these are *NP+V-ing* or verbless) are all AspPs solves a problem, identified above, with the claim in McCawley (1983) (see 4.1) that verbless Absolutives have an underlying *be* which is deleted before *s*-structure. Our objection to this proposal was that examples like the following do not have a counterpart with *be*:

- (123) a. **With Schwarz as goalie**, our team is sure to lose
 b. ***With Schwarz being as goalie**, our team is sure to lose

Treating the Absolute in (123)a as a (CP) AspP with Asp non-overt at Spell-out allows us to dispense with the notion of *be* deletion so that the ungrammaticality of (123)b is no longer relevant. Both verbless prepositionally augmented Absolutives and *NP+V-ing*

prepositionally augmented Absolutes therefore have an underlying structure which is sentential but instead of assuming *be* deletion to unify the two types we have movement of *with* to Comp leaving a non-overt Asp head at Spell-out in both. This means that McCawley's sound observations about the sentential character of all prepositionally augmented Absolutes can be retained in a manner which is consistent with our own observations on the temporal interpretation of all prepositionally augmented Absolutes in relation to the matrix clause.

Consider, finally, what the syntactic category of *as* in (123)a might be. The possibility that it could be a preposition is ruled out by the fact that the NP *goalie* can be replaced by an adjective (eg. *I consider John as crazy*), since prepositions do not generally take AP complements. In fact Bowers (1993) has proposed that *as* is the overt head of a functional category which he calls 'Predicate Phrase (PrP)'. Bowers argues that PrP is present in the underlying structure of all propositions, whether these be finite clauses, non-finite clauses or SCs.

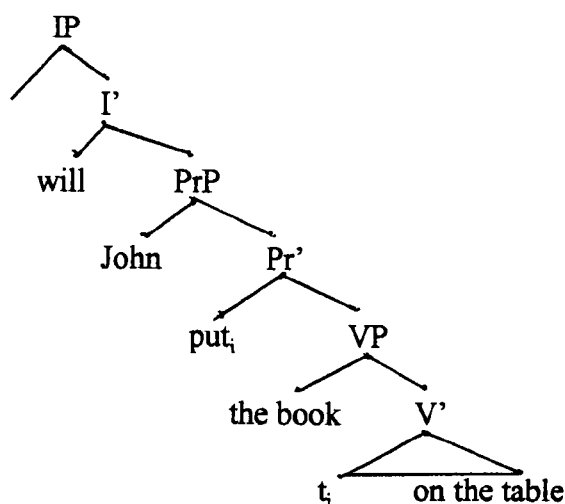
As a main concern of this thesis is to propose structures for a range of propositional phrases which we have referred to as SCs, we conclude this section with a brief summary of Bower's theory. It should become evident that although such an approach is plausible, in principle, it offers no particular insight into subject Case-licensing in Absolutes and so we do not include a PrP here above the lexical projection in Absolutes.

2.4.3.4 Bowers (1993) on the syntax of predication

Bower's proposed PrP is located in main clauses and infinitival clauses between I and V and in SCs directly above the lexical projection of the SC (when the SC is complement to V, therefore, PrP is between matrix V and the lexical projection of the SC). External arguments are understood to be inserted into [Spec,PrP] and internal arguments (i.e. direct objects of transitive verbs and subjects of unaccusatives) into Spec VP. Goal/dative

arguments are located under V' as right sisters to V .¹²⁵ In identifying below the evidence cited by Bowers in support of the existence of PrP we will consider only those arguments relating to main clauses and to SC complements of ECM verbs like *consider* and *regard*, firstly, since these provide the strongest evidence, and secondly, since Bower's analysis of SCs is obviously of more relevance here.¹²⁶ (124)b below shows the structure posited for the main clause in (124)a:

- (124) a. John will put the book on the table
 b.



The direct object (in [Spec, VP]) is referred to by Bowers as the secondary subject in order to capture a number of syntactic parallels between subjects and objects,¹²⁷ as well as the c-command relations (identified in Barrs and Lasnik 1986) holding between the different arguments.¹²⁸ In locating the external argument outside the VP (in [Spec, PrP]) Bowers allows for a distinction to be drawn in the syntax between the two distinct logical types 'proposition' and 'property': thus, the category PrP corresponds to proposition, and the

¹²⁵Complement CP(IP)s (e.g. control infinitives) as well certain other SCs, are understood to be right-adjoined to V' . It is suggested alternatively that V might project three bar levels (i.e. V' , V'' , and VP) with sentential complements occupying a third argument position at V'' .

¹²⁶The other structures discussed by Bowers are control infinitives, clauses with secondary predication (e.g. *they fed the lions the meat raw*) and double-object constructions.

¹²⁷Both are assigned structural Case, both can agree with the verb, both can control PRO and both are possible theta positions.

¹²⁸i.e. the subject c-commands all other arguments and the object c-commands all but the subject.

category VP to property. The verb moves from V⁰ to Pr⁰ in order to assign the theta role to the external argument in [Spec, PrP]. The goal argument (*the table*) receives Case within the lower V' from its governing preposition.

As evidence that main verbs move to Pr⁰ Bowers cites the following example of conjoined VPs in which, it is argued, the verb has been extracted out of each VP (across-the-board-extraction) in its movement to Pr⁰, as in (125) below.¹²⁹

- (125) a. Mary considers John a fool and Bill a wimp
 b. [PrP Mary [considers; [VP John_i [t_i [PrP t_j [[NP a fool]]]]]] and [VP Bill_k [t_k [PrP t_k [NP a wimp]]]]]]

ATB extraction of the verb would only be possible here if there were an X⁰ position between I and V (i.e. Pr⁰).¹³⁰

Further evidence in support of the structure for main clauses outlined above, and in particular for the position of the direct object of (124) in [Spec, VP], is based on the examination of the position of adverbs in English (and French) and on the assumption that these are licensed by heads. Bowers sets about explaining the ordering of the English adverbs in (126) below, focussing in particular on the fact that adverbs like *perfectly* can only occur in postverbal position and that those like *quickly* can follow *perfectly* but that the position of the two adverbs cannot be interchanged (i.e. *quickly* cannot precede *perfectly*):

- (126) *Clearly* John *probably* will *quickly* learn French (**quickly*) *perfectly* (*quickly*)

It is proposed that adverbs like *perfectly* are located at V', those like *quickly* are located at Pr' and those like *clearly* and *probably* are at C' and I' respectively. *Perfectly* cannot

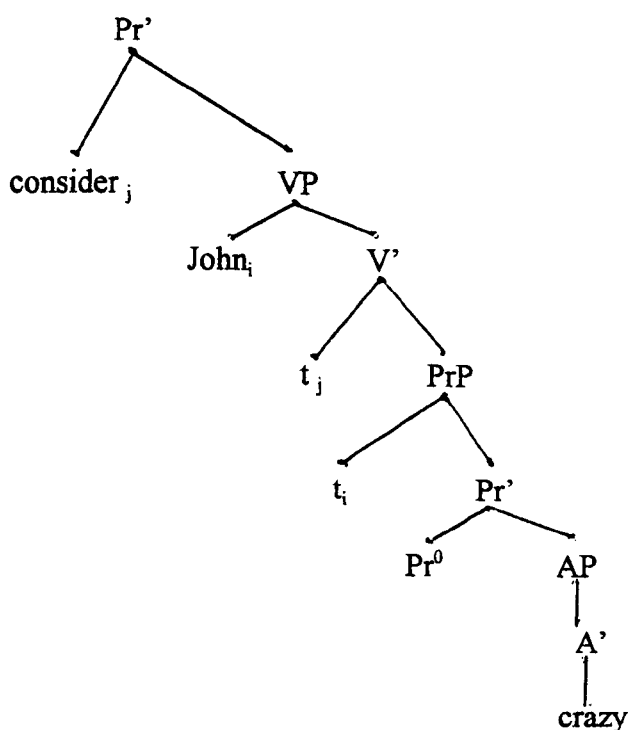
¹²⁹The subject of the SC complement to V has also moved i.e. from [Spec,PrP] to [Spec,VP], the position occupied by direct objects generally. We return to the notion of 'raising-to-object' directly below.

¹³⁰It is generally assumed that non-auxiliary verbs do not raise to I in English (following Emonds 1978 and Pollock 1989).

be interchanged with *quickly* (if *quickly* is in a postverbal position) because *perfectly* is embedded more deeply than it (i.e. in V'). Furthermore, the reason why *perfectly* cannot occur between the verb and the direct object (e.g. left-adjoined at V'), in spite of its being a V' adverb, is that the direct object is in [Spec, VP].

Consider now the evidence cited in support of treating the SC complement of V in (127)a below as a PrP of the kind illustrated in (127)b:

(127) a. I consider John crazy



Here matrix V selects a SC complement consisting of a PrP dominating an AP; the subject of the SC is inserted into [Spec,PrP] (where it receives its theta role) and moves for Case into [Spec, VP] of the higher clause in a 'raising-to-object' (RO) movement posited by Bowers for ECM constructions generally (see also (125) above). As evidence of RO the following example is cited in which a stranded quantifier appears in the proposed [Spec, PrP] of the SC:

(128) [IP [PrP we [Pr consider_i [VP the men_j [V' t_i [PrP all t_j fools]]]]]]

It is argued that if the complement clause were simply a bare lexical projection with the subject in the specifier it would be difficult to account for the position of the quantifier here.¹³¹ Other facts, relating to the passivisation of embedded subjects in SCs and infinitival clauses, are also cited as evidence of RO.¹³²

Finally, the proposal that SCs are PrPs (and that (125) and (127) involve RO) allows for an explanation of examples like the following in which it might seem as if predicative expressions of different categories (i.e. AP and an NP) have been conjoined:

(129) I consider John crazy and a fool

On the assumption that John has undergone raising-to-object (RO) and is therefore in [Spec, VP] the conjoined phrases are actually PrPs with a trace in each specifier.

To conclude on Bower's proposal that *as* in (123)a is the lexically realised head of a PrP: if we accept the claim that propositions are universally PrPs then the analysis of *as* as Pr⁰ seems reasonable. However, the assignment of *as* to the correct syntactic category is, in itself, a relatively minor problem for our purposes and so we leave the issue open for the present.

Summing up this section as a whole, all Absolutes obligatorily augmented by a preposition have been shown to consist of CP dominating AspP. The preposition is inserted under Asp, it bears an EPP feature and it moves to Comp from where it Case-licenses the subject in a (pre-LF) ECM configuration. In the next section our account of Absolutes as AspPs is extended to examples like (1)c above.

¹³¹The possibility that the complement clause might be a 'defective' IP is rejected (p.619).

¹³² It is argued that only embedded subjects which are 'objects' of matrix V (i.e. those that raise to [Spec, VP]) can undergo passivisation). Thus, the subject of SCs of the kind in (128) and of infinitival complements of *expect* can move to matrix [Spec,IP] for Case in a passive while the complement clause as a whole cannot because only the former appear in [Spec, VP]. Conversely the subject of the infinitival complement of *prefer* (where *for* under C precedes the infinitival clause) cannot undergo passivisation because it does not undergo RO (it gets Case from C). The CP as a whole, on the other hand, can undergo passivisation since it is an object of the matrix verb(i.e. it is inserted into [Spec,VP]).

2.5 Verbless Absolutes Unaugmented by P

Absolutes of the kind in (130) a-d below, which, as noted in the introduction, have received a minimum of attention in the syntactic literature, might seem at first to have little in common with any of those discussed thus far, apart from the fact that they too can be loosely described as 'clausal' adjuncts to a finite CP:¹³³

- (130) a. **The battle lost**, the city was surrendered by the Serbs
b. **The room tidied at last**, Bill has nothing to do
c. **The tub empty now**, Sue shivered
d. **Weapons out**, the fighting commenced

The purpose of what follows will be to explain how subject Case-licensing is effected in the absence of either of the two elements typically associated with subject Case-licensing in English i.e. a tensed verb or an ECM preposition (or verb). The account of subject Case-licensing proposed will be based on the claim that the category of these phrases is not IP/TP (as might be assumed by analogy with accounts in the literature of other Absolutes), but AspP.

We begin by demonstrating that although these Absolutes show no evidence of a Tense projection there is indeed evidence of a functional layer above the lexical projection. The analysis in Napoli (1988), who, like us, argues against an IP/TP account, is then briefly discussed and rejected (5.1). Next we argue that the Absolutes in (130)a&b are adjectival

¹³³The fact that they serve as scope for quantifiers supports the assumption that they are 'clausal' in character, like all the other Absolutes above:

- (i) a. Everything lost, the city was surrendered by the Serbs
b. Everything tidied at last, Bill is free to leave
c. Everything empty now, Sue got the shivers
d. All weapons out, the fighting began

Taking (i)a above to illustrate the point, only the interpretation in (ii)a, below, is possible; a reading in which the quantifier scopes over the matrix clause, as in (ii)b, is not available:

- (ii) a. [(all x: x a thing) (x is lost)], the city was surrendered by the Serbs
b. *(all x x a thing) [x lost, the city was surrendered by the Serbs]

passives, rather than verbal passives (with auxiliary verbs deleted), on the basis of contrasts between the two with regard to the interpretation of bare plural subjects and certain adjective-like characteristics of the predicate phrase. All the Absolutes in (130)a-d, therefore i.e. with or without a passive participle, are assumed to involve the same structure, namely, a lexical projection (AP) dominated by a functional projection (5.2). We then argue, following ideas in Smith (1991), that the events denoted by the Absolutes in (130)a-d are Achievements derived from States (5.3). Finally, we propose that the functional projection posited in 5.1 is an AspP with the feature +telic on the head. The +telic feature is a syntactic reflex of the proposed ‘derived Achievement’ status of the event. The +telic Asp head Case-licenses the subject in its specifier - it is the positive counterpart to the -telic head posited in *NP+V-ing* in Section 3 (5.4).

2.5.1 Functional structure

The first observation here is that the tense (i.e. PAST/PRESENT) of each of the Absolutes in (130)a-d is interpreted as though it were the same as that of the matrix clause. The following examples in which the Absolute is replaced by its tensed paraphrase illustrates this:

- (131) a. The battle has been*/had been lost and so the city was surrendered (PAST) by the Serbs
 b. The room has been*/had been tidied at last, and so Bill has (PRES) nothing to do
 c. The tub is*/was empty now, and so Sue shivered (PAST)
 d. The weapons are*/were out, and so the fighting commenced (PAST)

What the paraphrases suggest is that unaugmented verbless Absolutes, like those discussed in the two preceding sections, also lack a TP layer for the following reason: if the Absolutes in (130)a-d were TPs then they might be expected to have the same potential for temporal interpretation as unambiguous tensed adverbial clauses (recall from 2.3.2 above that, as predicted by Enç’s theory of the anchoring of tense, tensed adverbial clauses are in principle temporally independent of the matrix clause). The grammaticality of all of the following examples demonstrates that a tensed adverbial clause, unlike the verbless

Absolutes in (130)a-d, does not in principle have to have the same tense (PAST/PRESENT) as the matrix clause.¹³⁴

- (132) a. Because the battle is¹³⁵/was lost, the city was surrendered (PAST)by the Serbs
b. Because the room has been/had¹³⁶ been tidied at last, Bill has (PRES) nothing to do
c. Because the tub is/was empty, Sue is getting (PRES) the shivers
d. Because the weapons are/were out,¹³⁷ the fighting had commenced (PAST)

In addition to this, the fact that the tense of the Absolute is interpreted as co-referential with the tense of the matrix clause cannot be explained as an instance of the binding of embedded tense by matrix tense (again assuming that Enç's syntactic account of the temporal relationship between matrix and embedded tense in (CP)TPs is correct) since matrix tense does not c-command embedded tense.

Although the evidence above supports the view that the Absolutes in (130)a-d are not TPs, the subject, nevertheless, seems not to be in the specifier of the lexical projection i.e. these are unlikely to be bare VP/APs, since a floating quantifier can appear below the subject and preceding the predicate (just as in the earlier examples containing an aspectual inflection (*ing*)):

- (133) a. **The battles all lost**, the city was surrendered by the Serbs
b. **The rooms all tidied at last**, Bill has nothing to do
c. **The tubs all empty now**, Sue shivered
d. **The weapons all being out**, the fighting commenced

¹³⁴It should be emphasised that these are not intended to be paraphrases of the Absolutes in (130a-d).

¹³⁵Imagine the following scenario: everyone in the country knows that the war is over (the battle is lost). This is why the city surrendered.

¹³⁶A possible context for the PAST adverbial clause here would be if Bill's friends were looking at photos of Bill's tidied room.

¹³⁷A possible context for the PRESENT reading of the adverbial clause would be as follows: some researchers are looking at faded photos of a battle scene and are trying to determine whether or not the fighting had actually begun at the point when the photo was taken. They can see that some weapons are out in the photo and so they conclude that it had.

Turning, now, briefly to the account of Absolutes like those in (130)a-d found in Napoli (1988): they are understood to exemplify the second type of subject-predicate relation identified by her (see 4.2 above), in which thematic subjects only are allowed. The main problem with Napoli's account is that she does not specify either what exactly the syntactic structure of these examples is or how the subject is Case-licensed. An analogy can of course be drawn (on the basis of subject type) with prepositionally augmented verbless Absolutes, which, as explained above, were assigned a ternary branching structure in which a preposition takes two complements (i.e. NP and a predicate phrase) and Case-licenses the former. However, this approach has a distinct limitation: in (130)a-d there is no augmenting P to Case-license the subject, and so the account is clearly incomplete.¹³⁸

Moreover, Napoli acknowledges that the ungrammaticality of examples like the following cannot be accounted for on her theory:¹³⁹

(134) ***Him cold**, I grabbed the towel

Our analysis, to be outlined in 5.3, can not only explain how subject Case-licensing functions in (130)a-d, but also has a principled explanation for the ungrammaticality of (134).¹⁴⁰

¹³⁸We have already identified weaknesses in Napoli's claim that a-thematic subjects are ruled out *per se* in these Absolutes. A further objection is worth pointing out here: in fact only one of the two idioms which Napoli identifies as categorically unanalysable, and hence ungrammatical in an Absolute of this kind (because of its a-thematic subject), is actually fully ungrammatical:

- (i) a. ***Mum the word**, Bert will never know what happened
 b. ??**The jig up**, the police moved in

The asymmetry in (i)a&b will receive a principled explanation in the analysis we will present in 2.5.3 below.

¹³⁹Her example (72).

¹⁴⁰The example in (i) below seems similar to (134):

- (i) **The food all cold at this point**, we had to put everything into the microwave

Since (i), unlike (134), is indeed grammatical one might be led to suspect that Absolutes like (134) are not ruled out in principle. In other words, one might be disposed to argue that some minor difference, which is not of any great significance, has made (134) ungrammatical. We will return to (i) shortly below (see footnote 159) and demonstrate that, within the theory of subject Case-licensing in unaugmented verbless Absolutes which we are in the process of developing here, there is a very significant difference between the two examples.

Having argued, above, that these Absolutes are not IP/TPs, but that there is nevertheless a functional projection dominating the lexical one, we provide evidence, in the next subsection, in support of the claim that all the Absolutes in (130)a-d i.e. including those with passive participles as predicate, are APs, with the subject inserted into the specifier of the functional projection directly above it.

2.5.2 Adjectival versus verbal passive

In establishing what the syntactic structure of the Absolutes in (130)a-d might be, an obvious possibility to consider first is that in each example there is an underlying *having been/being*, as in (135) a-d below:

- (135) a. **The battle having been lost**, the city was surrendered by the Serbs
b. **The room having been tidied at last**, Bill has nothing to do
c. **The tub being empty now**, Sue shivered
d. **Weapons being out**, the fighting commenced

This would make available an analysis in which *ing* would be the overt realisation of an a-telic Asp head which, together with the aspectual and passive auxiliaries, gets deleted at PF, having first Case-licensed the subject in the manner proposed in section 3.4 for *NP+V-ing* Absolutes. There are two reasons, however, why this cannot be correct: firstly, when a bare plural appears as subject in any of the Absolutes in (130)a-d its potential interpretation differs from that of a bare plural subject in the Absolutes of (135)a-d, as illustrated in the following contrasting pairs:

- (136) a. **Battles lost**, the city was surrendered by the Serbs
b. **Battles having been lost**, the city was surrendered by the Serbs
- (137) a. **Rooms tidied at last**, Bill had nothing to do
b. **Rooms having been tidied at last**, Bill had nothing to do
-

- (138) a. **Tubs empty now**, Sue shivered
 b. **Tubs being empty now**, Sue shivered
- (139) a. **Weapons out**, the fighting commenced
 b. **Weapons being out**, the fighting commenced

The bare plural subject in the (a) examples has a generic reading only, while in the (b) examples either a generic or an existential reading is available, suggesting that two distinct derivations are involved in each pair.

The second reason why it cannot be correct to assume underlying auxiliary verbs, specifically concerns absolutes like those in (130)a&b, in which the predicate is a passive participle: if it actually were the case that these are the same structures as in (136)b and (137)b, respectively, then it might reasonably be expected that in any other Absolute consisting, like them, of a perfect auxiliary (with *ing* affixed) followed by the passive auxiliary and a passive participle, the same hypothetical deletion should be possible; the contrast in grammaticality between (140)a&b below (with the relevant auxiliary verbs) and (141)a&b (in which they have been deleted) shows that this is not the case:

- (140) a. **The mercedes having been owned by a car mechanic**, the chances of it being well-maintained were good
 b. **A Rolls Royce having been bought by the lottery winner for a huge price**, the newspapers wanted a picture
- (141) a. ***The mercedes owned by a car mechanic**, the chances of it being well-maintained were good
 b. ***A Rolls Royce bought by the lottery winner for a huge price**, the newspapers wanted a picture

We are led to the hypothesis, therefore, that a fundamental difference between Absolutes like (135)a&b and (130)a&b is that the former are verbal passives i.e. the subject originates as object of V and moves to subject position for Case (hence the existential reading of the bare plural subject), while the latter are adjectival passives i.e. the predicate is an adjective (converted in the morphological component from a verbal passive participle), and therefore is not immediately dominated by passive *be* (and auxiliary *have*).

There are indeed indicators that the Absolutes in (130)a&b are adjectival passives: Levin and Rappaport (1986) employ three main diagnostics to identify adjectival passive participles, two of which, as illustrated below, are satisfied by the predicates in these Absolutes i.e. potential to occur as complement to *seem/look* ((142a&b) versus (142c)), and potential to function as pronominal modifiers ((143a&b) versus (143c)).¹⁴¹

- (142) a. The battle seems [_{AP}t lost]
 b. The rooms look [_{AP}t tidied]
 c. *The story seems/looks believed

- (143) a. The lost battle
 b. The tidied room
 c. *The believed story

These contrasts between *lost* and *tidied*, on the one hand, and *believed* on the other, lead to the conclusion that the former are adjectival passive participles, while the latter is a verbal passive participle.¹⁴² Moreover, as the ungrammaticality of (144) below shows, the verbal passive participle *believed* is ungrammatical as the predicate of an Absolute of this kind, supporting the view that the passive participles occurring as Absolute predicates are adjectival not verbal.¹⁴³

- (144) *The woman's story believed, the police made an early arrest

Assuming, therefore, that there are no underlying functional verbs in any of the Absolutes

¹⁴¹The third diagnostic is morphological i.e. some adjectival passive participles can be prefixed with negative *un-* e.g. *unshaven* and *unmarked* while verbal ones cannot e.g. **uncarried* and **unbelieved*. It should be pointed out that the characteristics associated by Levin and Rappaport with adjectival and verbal passives, respectively, in their formulation of a rule for adjectival passive, have long been noticed in the generative literature. They note that Wasow (1977) was the first to distinguish systematically between the two kinds of passive.

¹⁴²Clearly there are passive participles which can occur in both verbal and adjectival environments, *lost* and *tidied* being a case in point i.e. they can be selected by aspectual auxiliaries (e.g. *will have lost/tidied*), as well as being complement to *seem/look* and functioning as pronominal modifiers. Our point is simply that in Absolutes they are adjectival.

¹⁴³The verbal passive participle *carried* (see footnote (141)) is also ungrammatical in an Absolute:

- (i) *The drugs carried in a toothpaste tube, the customs officers took a long time to discover them

in (130)a-d i.e. that all are APs,¹⁴⁴ the next question to be addressed is whether the subject is inserted directly into [Spec, AP], from where it would move to the specifier of a higher functional projection (recall the evidence in 5.1 that these are not bare lexical projections), or, directly into the specifier of the higher projection.

To answer this, we must take into account the fact, established above, that bare plural subjects in these Absolutes receive a generic reading only (see (136a), (137a), (138a) and (139a), above). The obvious conclusion to draw from this is that the second possibility is the correct one i.e. they are inserted directly into [Spec,FP], and control a PRO in [Spec, AP], as argued in section 3.4 for the subjects of individual-level predicates.¹⁴⁵ In the next subsection we examine the ‘situation type’ of these Absolutes with a view to explaining why the sense of their predicates is intuitively so different from that of the individual-level predicates just referred to (e.g. *be intelligent* versus *be lost/over*).

2.5.3 The situation type of verbless Absolutes unaugmented by P

There is clear evidence that there are certain restrictions of a semantic kind on the type of predicate which can occur in unaugmented verbless Absolutes, and that this applies both to those which are passive participles, as in (130)a&b, as well as those like (130)c&d which are not. Notice, for example, that although *loved* and *appreciated* can occur as prenominal modifiers and can take the negative prefix *un*, as illustrated in (145)a&b below, hence qualifying as potential adjectival passive participles, they cannot appear as predicate in an Absolute of the relevant kind, as illustrated by the ungrammaticality of (146)a&b:

¹⁴⁴We are not saying that the predicate of a verbless Absolute is obligatorily adjectival (it can also be prepositional e.g. *Wars at an end...*). What matters for the present purpose is the conclusion that the passive participles in (130)a&b do not come with underlying functional verbs which would allow for an account of subject Case-licensing of the kind already proposed for (unaugmented) *NP+V-ing* Absolutes.

¹⁴⁵If the subject were inserted directly into [Spec, AP], this would incorrectly yield a similar derivation to the one proposed in 2.3.4 for *firemen being available* i.e. one in which the subject gets an existential reading because it originates in [Spec, AP], moves for Case-licensing into the specifier of a functional projection (AspP) and then lowers back into AP at LF.

- (145) a. A much loved daughter/a greatly appreciated gift
 b. An unloved daughter/an unappreciated gift
- (146) a. ***The children (much) loved from a young age**, their confidence was striking
 b. ***The gifts (greatly) appreciated**, the children were happy to write thank you letters

The contrast between (147)a-d and (148)a-d, below, is another indicator that there is a semantic restriction on the kind of predicate which can occur in these Absolutes:

- (147) a. **The scandal out**, the gossip began
 b. **The game over**, the crowds dispersed
 c. **Their pockets full**, the children ran from the orchard
 d. **The lights off**, the giggling began
- (148) a. ***The scandal serious**, the gossip began
 b. ***The game slow**, the crowds were beginning to disperse
 c. ***Their pockets deep**, the children ran from the orchard
 d. ***The lights funny**, the giggling began

What the semantic property might be which distinguishes all the grammatical Absolutes discussed in this section so far from the ungrammatical ones is the main issue which will be addressed in this section. In the course of the analysis proposed particular reference will be made to the notion of ‘derived situation types’ found in Smith (1991). The hypothesis which we will explore is that the difference between the Absolutes in (147)a-d and (148)a-d lies with situation type: in (148)a-d this is uncontroversially State, while in (147)a-d a more complex picture emerges, as will be demonstrated next below.

2.5.3.1 Unaugmented verbless Absolutes as non-stative events

We begin here by noting a number of key properties attributed to States in the literature (see Vendler 1967; Mourelatos 1981; Tenny 1987; Smith 1991 and Ramchand 1996). States are non-dynamic i.e. they may endure over stretches of time but they do not involve

change.¹⁴⁶ They have no internal structure, and no argument is related in any way to a transition between temporal moments.¹⁴⁷ They are stable situations consisting of undifferentiated moments. They are non-delimited, in the sense of Tenny (1987;1994) i.e. they do not transpire over a fixed length of time.¹⁴⁸ Smith (1991) proposes the following temporal schema for States:

$$(149) \quad (I) \text{-----} (F)$$

The line represents the period during which a State holds. The initial endpoint is a change into the State; the final endpoint is a change out of the State. Since changes are by definition dynamic and States are by definition non-dynamic the stative event does not have endpoints. The initial and final endpoints are therefore parenthesized in (149) to indicate that they are not part of the State itself.¹⁴⁹ When a State holds for a certain period of time the whole schema is true for every moment i.e. the state holds consistently for the interval during which it obtains. We argue next that the aspectual/temporal interpretation of the situations/events referred to in the Absolutes of (147)a-d does not correspond to the

¹⁴⁶This description of States is found in Vendler (1967) and is widely employed in the literature generally.

¹⁴⁷Ramchand (1996) describes States in these terms. Her approach is as follows: events generally are associated with a time chain or temporal trace (e) of the kind proposed in Krifka (1989) and illustrated below:

$$(i) \quad \Upsilon (e) = (t_0, t_1, \dots, t_{n-1}, t_n).$$

This represents the temporal duration of the event by showing the individual conceptual moments of the event in the correct temporal order. With a telic event like *John ate the apple* there is a mapping from this chain onto the object argument such that each conceptual moment in the time chain corresponds to a point in a transition from one state to another in the object argument. The change in the apple from being intact to being completely eaten defines the temporal path of the event. With an a-telic event like *running* the position of the runner changes over time and the changes correspond to changes in the temporal trace. States (unlike Accomplishments) are not associated with a temporal trace since they do not have time structure. The predicate denotes a homogeneous property and individuated moments of the event are not distinguishable. There is only one conceptual moment and no argument is related in any way to a transition between temporal moments.

¹⁴⁸The aspectual property of delimitedness is seen by Tenny as compositional i.e. a property of VPs or sentences rather than of a specific lexical item. Tenny identifies a number of ways in which events are delimited: i) the verb may have an ‘affected’ argument. Affected arguments measure out the event according to an inherently finite scale e.g. the spatial extent of an object (e.g. *John ate the apple*) or a subject (e.g. *The house was burnt down; the ice melted* (inchoatives)); ii) the presence of a goal phrase may provide a definite endpoint for the event (e.g. *John walked to the cliff*); iii) a verb particle can impose delimitedness (*look up a number* versus *look at a number*); iv) a completive adverbial can select a delimited reading of an event which has the potential to be interpreted either as delimited or non-delimited (e.g. *the weather cooled finally* (inchoative, delimited) versus *the weather cooled considerably* (inchoative, non-delimited)).

¹⁴⁹Recall from Chapter 1, section 3 that in situation types which have stages // // // // // appears in place of _____.

schema for States generally, illustrated in (149). This will support our view that the situations/events referred to are not in fact States.

The first indicator that the Absolutes in (147)a-d do not have the situation type 'State' is that they do not pass the adverbial test proposed in Tenny (1987;1994) for non-delimited events (recall Tenny's point, noted above, that States are non-delimited): a durative adverbial like *in an hour* / *in a week* sounds odd with non-delimited events but is perfectly acceptable with delimited ones, as illustrated in (150)a versus (150)b below:

- (150) a. ?Kim slept in the silo *in an hour* Activity (i.e non-delimited)
b. Kim climbed the silo *in an hour* Accomplishment (i.e delimited)

The fact that States are non-delimited is illustrated in (151)a-d below, showing the stative propositions of the Absolutes in (148)a-d as main clauses modified by *in an hour*.

- (151) a. *The scandal was serious *in an hour*¹⁵⁰
b. *The game was slow *in an hour*
c. *Their pockets were deep *in an hour*
d. *The lights were funny *in an hour*

Observe now how the Absolutes in (130)a-d above are perfectly acceptable when an adverbial of this kind is applied to them:

- (152) a. **The battle lost *in an hour***, the city was surrendered by the Serbs
b. **The room tidied *in an hour***, Bill has/had nothing to do
c. **The tub empty *in two minutes***, Sue shivered¹⁵¹
d. **The weapons out *in a second***, the fighting commenced

The same is true of the Absolutes in (147)a-d above:

- (153) a. **The scandal out *in an hour***, the gossip began

¹⁵⁰Notice that there is a reading in which this example is arguably acceptable i.e. one in which it means that by the end of an hour the scandal had *become* serious. Crucially, the situation type of the event on this reading is not State - the addition of the durative adverbial changes the event to an inchoative. On this reading the event can be classified as an Achievement.

¹⁵¹*In two minutes* and *in a second* are more appropriate duratives than *in an hour* for the predicates in the (c) and (d) examples, respectively, here.

- b. **The game over *in an hour***, the crowds dispersed
- c. **Their pockets full *in an hour***, the children ran from the orchard
- d. **The lights off *in a second***, the giggling began

This is unexpected if the situation type of the event in the Absolute were actually State.

Consider next the following tensed paraphrases of (130)a-d and (147)a-d, respectively:

- (154) a. **As soon as/once/when the battle was lost**, the city was surrendered by the Serbs
- b. **As soon as/once/when the room is/was tidied**, Bill has/had nothing to do
- c. **As soon as/once/when the tub was empty**, Sue shivered
- d. **As soon as/once/when the weapons were out**, the fighting commenced

- (155) a. **As soon as/once/when the scandal was out**, the gossip began
- b. **As soon as/once/when the game was over**, the crowds dispersed
- c. **As soon as/once/when their pockets were full**, the children ran from the orchard
- d. **As soon as/once/when the lights were off**, the giggling began

Observe now what happens when *as soon as/once* introduces stative verb constellations generally:

- (156) a. ?*As soon as/once the scandal was serious,...
- b. *As soon as/once the game was slow,...
- c. *As soon as/once their pockets were deep,...
- d. *As soon as/once the lights were funny,...

(156)a is marginally acceptable on a reading in which *was* means *became*. On this reading it is on a par with (157)a below, in which the copula+adjective is interpreted as referring to a change of state i.e as *become tired* (paraphrased in (157)b):

- (157) a. As soon as/once John was tired, he left the party
- b. As soon as/once John became tired, he left the party

What (156)a-d show, therefore, is that *as soon as/once* does not introduce stative propositions. When placed before stative propositions, as in these examples, either the result is ungrammatical or the stative proposition gets interpreted as non-stative i.e as an Achievement.

In the light of this fact, consider again now (154) and (155), above, in which *as soon as/once* introduces the tensed paraphrases of the Absolutes we are examining here (i.e. (130a-d) (147)a-d): these, in contrast to (156)a-d, are grammatical, as already indicated. In fact, the non-stativity of the events described in (154) and (155) is very clear - in each the main event takes place at the point when a change occurs in the state of the embedded subject: in (154)a the battle changes from being in progress and without an outcome, to being over and lost; in (154)b the untidy room becomes tidy; in (154)c the tub which was not empty becomes empty, and in (154)d the weapons which were not drawn are now drawn i.e. out.

Similarly, in (155)a the scandal changes from being secret to being known; in (155)b the game goes from being in progress to being finished; in (155)c the pockets change from being in the process of being filled to being full; in (155)d the lights change from being on to being off.

The same propositions occurring as main clauses rather than as Absolutes, as in (158)a-f below, do not describe a change of state (with the exception of (154)a&b, which we address shortly below):¹⁵²

- (158) a. The tub was empty
b. The weapons were out
c. The scandal was out
d. The game was over
e. Their pockets were full
f. The lights were off

What this suggests is that the predicates of these Absolutes (unlike the predicates of the Absolutes in (148 a-d)) have a semantic property which enables the proposition as a whole to be interpreted as an Achievement rather than as a State when it is projected as an Absolute. Thus, all the propositions referred to denote States at a basic-level interpretation

¹⁵²Of course the addition of a durative adverbial e.g. *in an hour/in a second* can change the Situation type from State to Achievement (or Accomplishment) e.g. *The tub was empty in one minute*. Pragmatic factors, which we are not concerned with these here, might also force a non-stative reading.

(e.g when they are main clauses) but only those of the kind in (158)a-f have the potential to be interpreted as Achievements. We will pursue the claim that they are interpreted as Achievements when they are projected as Absolutes (or as tensed adverbial clauses introduced by *as soon as/once*) further below (in subsection 3.2). We must first return briefly to the status of the propositions in (154)a&b when projected as main clauses, as in (159)a&b below.

- (159) a. The battle was lost
b. The room was tidied

These are ambiguous between stative and non-stative readings. This is consistent with the fact that they can be analysed either as adjectival or verbal passives (when they are main clauses). As adjectival passives they are non-dynamic and stative; as verbal passives they are dynamic and therefore non-stative.¹⁵³

Thus, the propositions contained in all of the Absolutes under discussion in this section denote stative events when they are projected into the syntax as main clauses (with an alternative non-stative reading being available in the case of (159)a&b). Crucially, only those with predicates of the kind in (130)a-d and (147)a-d have the potential to be interpreted as Achievements. We will argue further below that it is this property which makes it possible for these propositions to appear as unaugmented verbless Absolutes.¹⁵⁴

We conclude this subsection with one further point which lends support to the view that the predicates just referred to have a property which allows the proposition they appear in to be projected as a (derived) non-stative. This concerns the distribution of the temporal

¹⁵³The stative readings of (159a &b) are selected by the *for* phrases in (i) and (ii) below; the dynamic readings are selected in (iii) and (iv) by the durative *in an hour*:

- (i) The battle was lost for at least three years before the people regained their pride
(ii) The room was tidied now and John hoped it would remain so for at least a few days.
(iii) The battle was lost in an hour
(iv) The room was tidied in an hour

¹⁵⁴In fact it is the property +telic which will be shown to be crucial to the grammaticality of unaugmented verbless Absolutes.

subordinator *while*, which unlike *as soon as/once*, can introduce stative as well as non-stative clauses (e.g. *while John was ill* versus *while John was running*).¹⁵⁵ Tensed paraphrases of the Absolutes in (130)a-d and (147)a&b using *while* are not possible:

- (160) a. #While the battle was lost, the city was surrendered by the Serbs
 b. #While the room was tidied, Bill had nothing to do
 c. # While the tub was empty now, Sue shivered
 d. #While the weapons were, out the fighting commenced
 e. #While the scandal was out, the gossip began
 f. #While the game was over, the crowds dispersed

Paraphrases of the Absolutes in (147)c&d introduced by *while* are better, but it seems clear that there is a dimension of the temporal relationship between the two clauses which paraphrases of this kind fail to capture:

- (161) a. **Pockets full**, the children ran from the orchard
 b. ?While their pockets were full, the children ran from the orchard¹⁵⁶
 c. **Lights off**, the giggling began
 d. ?While the lights were off, the giggling began

Since *while* is a temporal subordinator which is compatible with States (cf. *as soon as* and *once*) and since the Absolutes concerned are arguably temporal modifiers, it might be expected that *while* could be substituted for *when* in a tensed paraphrase of the Absolute. The fact that paraphrases with *while* are not good ((161)a&c possibly excepted) suggests that we are correct in holding that the events denoted by unaugmented verbless Absolutes are not in fact States.¹⁵⁷

To sum up at this point: three indicators have been identified thus far that the events denoted by the Absolutes in (130)a-d and (147)a-d might not be stative: firstly, the Absolutes, unlike stative clauses generally, do not sound odd when modified by the adverbial *in an hour*; secondly, they can be paraphrased by a tensed clause introduced by

¹⁵⁵*While* introduces events with duration.

¹⁵⁶This meaning would be more effectively captured if *pockets full* were to be projected, not as a prepositionally augmented verbless Absolute, but as a PP adverbial phrase modifying VP i.e. *the children ran from the orchard with their pockets full*

¹⁵⁷The support is limited in so far as the failure of paraphrases with *while* constitutes negative evidence that these Absolutes are not statives.

as soon as/once which typically introduces clauses interpreted as non-stative;¹⁵⁸ thirdly, they cannot be paraphrased by *while* clauses, although *while* can introduce either stative or non-stative temporal clauses.

What we propose therefore is that the basic-level situation type State is altered when the stative predicate-argument structure appears in the syntax as an unaugmented verbless Absolute. A comparison can be drawn here with examples like the following from Smith (1991) where a verb constellation with the basic-level situation type State is interpreted as inchoative.¹⁵⁹

- (162) a. Suddenly, Mary knew the truth
b. John was dumbfounded when Mary threw the glass

¹⁵⁸We rely here on the assumption that a stative verb constellation in a clause of this kind has a derived non-stative interpretation i.e. that there is a distinction between basic-level and derived situation types, as proposed in Smith (1991).

¹⁵⁹Recall now the Absolute discussed briefly in footnote 140 above and repeated here:

- (i) **The food all cold at this point**, we had to put everything into the microwave

Notice that (i) can be paraphrased as in (ii) or (iii):

- (ii) **The food grown completely cold at this point**,...
(iii) **All of the food having grown cold at this point**,..

What the paraphrases show is that the predicate *cold* in the Absolute of (i) describes the property of *having grown cold* as distinct from the property of simply being cold in the way that lettuce or coleslaw or a cold buffet is cold. The adverbial phrase *at this point* forces this meaning. Thus, the Absolute does not refer to a situation in which all the food which was available at a certain point in time was of the kind that is intended to be cold i.e. the hot menu had run out. Rather it refers to a situation in which food which was originally warm (or hot) has become cold. The unaugmented verbless Absolute is unacceptable if *at this point* is omitted (contrast (a) with (b)& (c)):

- (iii) a. ***The food all cold**,(we had to put everything into the microwave)
b. **The food all being cold**, (we had to put everything into the microwave)
c. **With the food all cold**,(we had to put everything into the microwave)

Our conclusion vis-à-vis the grammaticality of the Absolute in (i) therefore is that the predicate *cold* denotes the result state of the inchoative *to grow cold*. The relationship between the dynamic event and the result state associated with it in Absolutes of this kind will be explained in due course below. A similar situation arises with examples like (iv)a below (paraphrased in (iv)b):

- (iv) a. **Face red with anger**, the teacher advanced on the student
b. **Face grown red with anger**, the teacher advanced on the student

The predicate *red* arguably describes the state resulting from the inchoative *to redden*.

(162)a is inchoative because Mary becomes someone who knows the truth. On the inchoative reading of (162)b John becomes dumbfounded when Mary throws the glass.¹⁶⁰ Smith classifies the inchoative events of (162)a&b as Achievements. The next hypothesis which we will defend here, therefore, is that the events in the Absolutes of (130)a-d and (147)a-d are also Achievements derived from the basic-level situation type State.

2.5.3.2 Unaugmented verbless Absolutes as derived Achievements

As a first step towards arguing for this analysis we identify in (i)-(iv) below the main properties attributed by Smith to Achievements:

i) Achievements are instantaneous events resulting in a change of state. Although they may actually take longer than an instant to occur one conceives of them as split-second events e.g. *break a glass; win a race; reach the top; miss the target*¹⁶¹

ii) The change of state which results from an Achievement is evident in one of the following ways: there is an affected object (e.g. *break a cup, tear a paper*); there is a constructed object (e.g. *imagine a city; define a parameter*); an object is consumed (e.g. *explode a bomb*); there is an affected experiencer (*John sees a comet*).

iii) Some Achievements allow preliminary stages but the Achievements themselves are detached from any associated process. For example, *recognize someone* may occur with or without preliminaries: I may recognize someone I see at a party instantly or I may gradually recognise them. Similarly, to win a running race one must run it, and to have reached the top of a hill one must have approached it.¹⁶² The lexical span of the Achievement focusses in such cases on the outcome of a chain of conceptually related

¹⁶⁰The main clause also has a stative reading i.e. one in which John was already dumbfounded when Mary threw the glass.

¹⁶¹Other examples from Vendler (1967) are: *recognize, find, start, stop, resume be born, die*.

¹⁶²To illustrate this point Smith suggests that if a magician whisked John and Mary to the top of a pyramid we would not say that they had reached the top.

processes.¹⁶³ The preliminary processes enable the Achievements to take place but they are detachable from them.

With Accomplishments on the other hand the preliminary process is conceived of as part of the event. In this sense it is non-detachable. For example, *John melted the ice in an hour* is an Accomplishment on a reading in which it took an hour to melt the ice i.e. John was melting it for an hour before it was completely melted. The melting of the ice is a non-detachable preliminary process related to the Accomplishment event. On an Achievement reading, on the other hand, it is the actual moment at which the state of the ice changes from one of not being melted to one of being (fully) melted which is focussed. The instantaneous event takes place at the end of the interval specified (i.e. at the end of an hour). Any preliminary process of melting is, in this sense, detachable.

iv) Durative adverbials are not compatible with Achievements per se.¹⁶⁴

(163) a. ?We reached the top for five minutes

¹⁶³*Lose* and *find* are examples of Achievements which are *not* preceded by corresponding processes i.e. events of *losing* and *finding*.

¹⁶⁴Completive adverbials (e.g. *in an hour*), as already indicated above, are compatible with Achievements. Smith notes that when a completive adverbial is applied to an Achievement the event referred to is understood to occur at the end of the interval denoted by the adverbial. A contrast arises in this respect with Accomplishments, which describe events which are coterminous with the interval referred to in the adverbial.

- (i) a. He left in an hour (Achievement)
b. We built the sandcastle in an hour (Accomplishment)

In (i)a the event of leaving occurs at the end of the one hour period (Smith refers to this as an ingressive reading). In other words, both the initial and final endpoints of the Achievement (see temporal schema in (164) below) occur at the end of the hour. In (i)b the building of the sandcastle commences at the start of the hour and finishes at the end of the hour. Notice now that when the same adverbial is applied to the Absolutes under consideration here, as in (152)a-d and (153)a-d above, an ingressive reading is always possible (although completive readings are also available in most cases). The following paraphrases of the first three of these Absolutes demonstrate the difference between the two readings:

- (i) a. After an hour had passed/an hour later, the battle was lost...
b. It took an hour for the battle to be lost,...
- (ii) a. After an hour had passed/an hour later, the room was tidied....
b. It took an hour for the room to be tidied....
- (iii) a. After an hour had passed/an hour later, the tub was empty...
b. It took an hour for the tub to be empty.....

b. The firecracker exploded for five minutes

(163)a is odd because Achievements are conceived of as instantaneous i.e. non-durative, events. With regard to (163)b, Smith proposes that it has a derived Activity reading in which there are a number of explosions. The exploding event becomes iterative. Thus, although *for five minutes* is indeed compatible with the event of a firecracker exploding it changes the situation type of the event from Achievement to Activity.

We come finally to the temporal schema proposed by Smith for Achievements:¹⁶⁵

(164)I (R).....

F

The dots in (164) represent preliminary and resultant stages (see (iii) and (ii) above, respectively). The result of the change of state is symbolized as R, in parenthesis. This indicates that although Achievements involve a result, the event denoted by the verb constellation in this situation type does not focus on the result. The schema shows simultaneous initial and final endpoints (see (i) above).

Consider now the extent to which the above properties may also be said to hold of the events denoted by the Absolutes in (130)a-d and (147)a-d. We will argue that a modified version of this schema, which takes into account the non-verbal status of the predicates concerned, is a more appropriate representation of these events than is the one in (149) (proposed by Smith) for States.

The point has already been made above that unaugmented verbless Absolutes can be very effectively paraphrased by *as soon as/once* clauses but not by *while* clauses. Notice, now, that Achievements, being instantaneous, can be introduced by *as soon as/once* clauses but

¹⁶⁵Smith's (48), p. 58.

not *while* clauses:

- (165) a. As soon as/once/while* John broke the bottle, the genie appeared
b. As soon as/once/while* Mary won the race the crowds cheered
c. As soon as/once/while* Ian recognised Mark he was happy

A clear parallel exists, therefore, between the situation type of the unaugmented verbless Absolutes discussed above and Achievements generally: in both cases the situation referred to is of a kind which is viewed as instantaneous. This is reflected in the semantic compatibility of both with the subordinators *as soon as* and *once* and their incompatibility, semantically, with *while*.

A second parallel between Achievements and unaugmented verbless Absolutes arises with respect to the property referred to in (iii) above. In the case of each of the events denoted by the Absolutes there is a conceptually related preliminary process which is arguably of the same kind as that associated by Smith with Achievements i.e. detachable. The preliminary processes associated with the Absolutes are as follows: in (130)a one side was losing the battle, in (130)b someone was tidying the room, in (130)c the tub was emptying or being emptied and in (130)d weapons were coming out. Similarly, in (147)a the scandal was coming out, in (147)b the game was proceeding, in (147)c the pockets were being filled and finally, in (147)d the lights were being turned off. States, unlike these Absolutes, are not associated with a preliminary process of this kind.¹⁶⁶ The preliminary processes associated with the predicates of the Absolutes in (130)a-d and (147)a-d are easily

¹⁶⁶For example: *the scandal is serious; the game is slow; the pockets are deep; the lights are funny*. It could of course be argued that when the propositions of the Absolutes in (130)a-d and (147)a-d appear as main clauses, as in (158)a-f above, they too are associated with a conceptually related preliminary process. The difference is that in (158)a-f the situations referred to are presented as States, while in (130)a-d and (147)a-d a change of State is described, as illustrated in the *as soon as/once* paraphrases of these events above. The (detachable) preliminary process in the Absolutes of (130)a-d and (147)a-d, therefore, leads to a result and that result in turn is one aspect of the lexical meaning of the predicates (e.g. *lost, tidied, empty, out* etc.). In the stative sentences of (158)a-f, on the other hand, since no change of State is involved, the State cannot be characterised as resultative. The parallel of significance between the Absolutes of (130)a-d and (147)a-d and Achievements generally with regard to a conceptually related preliminary process, therefore, is as follows: in both, any description of the situation type will have to make reference to *both* a (detachable) preliminary process and to the State which results from that process (see, for example (R) in (164) above). The stative sentences in (158)a-f, in contrast to this, can be described as in (149) above i.e. without reference to a result since by definition no change of state is involved in this event (recall that a result state can be referred to in a temporal schema even if the result is not actually part of the event, as in Smith's temporal schema for Achievements in (164) above).

conceived of as ‘detachable’, because the predicates concerned (unlike those typically associated with Achievements) are non-verbal and +resultative.

Finally, the property in (ii) (i.e. that Achievements involve a change of some kind in the state of an argument) allows for a third parallel to be drawn. Notice that in all the Absolutes of (130)a-d and (147)a-d there is an argument which can be described as an ‘Event Measurer’:¹⁶⁷ the battle is *lost* only when it has run its course or come to an end temporally, the room measures out spatially the event of tidying, the tub measures out spatially the event of emptying, the location of the weapons is the measure of whether they are *out* or not, the location of the scandal in the private or public domain is the measure of whether it has been disclosed or not, the time allocated to the game is the measure of when it is *over*, the pockets are the spatial measure for the event of filling, and the position of the light switch (e.g. up or down) is the measure for whether the lights are switched on or *off*. The subject of each Absolute, therefore, has a property against which the event concerned can be measured out. An argument which ‘measures out’ an event can also be described as an ‘affected’ argument. Semantic definitions of ‘affectedness’ in the literature are based on the notion of the affected argument of the verb being caused to undergo some change during the course of the event described by the verb (Tenny 1987:75). Tenny comments that affectedness verbs’ (e.g. verbs of Achievement, verbs of consumption and creation verbs expressing a change of state etc.) describe events which are ‘measured out’ and delimited by their direct argument. Although the Absolutes in (130)a-d and (147)a-d, being verbless, do not include ‘affectedness verbs’ the subject of each can nevertheless be described as an ‘affected’ argument given its ‘event-measuring’ property.

At this point we will propose a temporal schema for the Achievements denoted by the Absolutes of (130)a-d and (147)a-d which takes into account the three parallels with Achievements generally, noted above. An important difference between the two, which will be reflected in the schema, concerns the way in which the result state is related to the Achievement event. In Smith’s temporal schema for Achievements generally the result

¹⁶⁷See comments on arguments which are event-measurers in Chapter 1, section 1.

state is bracketed because it is not actually part of the event.¹⁶⁸ In the case of unaugmented verbless Absolutes, however, we cannot say that the result state is beyond the interval denoting the event, since it is clearly included in the lexical span of the predicate. That is to say, the predicates *lost, tidied, empty, out, over, full* and *off* in (130)a-d and (147)a-d refer not only to a change of state (as evident, for example, in the *as soon as/once* paraphrases) but they also describe the result state itself. In other words, with Achievements generally the result state is implicit but not focussed, while in the Absolutes under discussion here it is focussed (along with the initial and final endpoints). The schema we propose in (166) below is intended to capture this difference between the two kinds of Achievement:

(166) I
 F
 R

The initial and final endpoints are simultaneous, as in (149) above, since the event is instantaneous. The result state is reached at the same conceptual moment as the instantaneous event takes place. All three points i.e. initial endpoint, final endpoint and point at which result exists are therefore conceived of as instantaneous and simultaneous. This is due to the lexical span of the predicates which describe both a (dynamic) event and a (result) state simultaneously. Recall from above that this is also possible in examples like *John was dumbfounded when Mary threw the glass* (classified by Smith as a derived Achievement). The predicate *was dumbfounded* describes both a change of state (since it is an Achievement) and the result of a change of state, simultaneously.

There is an interesting difference between Achievements generally and the Achievements projected as unaugmented verbless Absolutes which receives a very plausible explanation

¹⁶⁸Smith gives the following temporal schema for Accomplishments, which are also associated with a result state of this kind:

(i) I.....F_{Nst} (R)

(R) represents the result state that obtains at the final point. The stage after the final point is that of a result state which may or may not continue.

in the light of the schema in (166) above, showing the + resultative property included in the focus of the event type: *for* adverbials are not compatible with Achievements generally (see (163)a&b above) but they are with States. However, when applied to the Absolutes in (130)a-d and (147)a-d, which we analyse as Achievements, they are indeed acceptable, as illustrated below:

- (167) a. **The battle lost *for an hour***, the city was surrendered by the Serbs
 b. **The room tidied *for an hour***, Bill has/had nothing to do
 c. **The tub empty *for an hour***, Sue shivered
 d. **The weapons out *for an hour***, the fighting commenced

- (168) a. **The scandal out *for an hour***, the gossip began
 b. **The game over *for an hour***, the crowds dispersed
 c. **Their pockets full *for an hour***, the children ran from the orchard
 d. **The lights off *for an hour***, the giggling began

These Absolutes clearly denote States, not Achievements - this is consistent with the fact that they can be paraphrased by tensed clauses with auxiliary *have* i.e by the ‘perfect’ construction (in Chapter 1, section 3 , we adopt the proposal in Smith (1991) that the perfect construction in English has a stative value):

- (169) a. **The battle had been lost *for an hour*** when the city was surrendered by the Serbs
 b. **The room has been tidied *for an hour***, and so Bill has nothing to do
 c. **The tub had been empty *for an hour***, when Sue shivered
 d. **The weapons had been out *for an hour***, when the fighting commenced

- (170) a. **The scandal had been out *for an hour***, when the gossip began
 b. **The game had been over *for an hour***, when the crowds dispersed
 c. **Their pockets had been full *for an hour***, when the children ran from the orchard
 d. **The lights had been off *for an hour***, when the giggling began

What this indicates is that when an unaugmented verbless Absolute is modified by a *for* adverbial a stative reading of the event is forced. This is possible because, as argued above, the lexical span of the predicate of the Absolute includes the notion ‘result state’ at the same time as denoting a change of state. Achievements with verbal predicates, in contrast to this, reject *for* adverbials because the associated result is not included in the event.

The question which remains to be answered now is how the subject gets Case-licensed in (167) and (168), given that these are not +telic predicates (we will link subject Case-licensing in unaugmented verbless Absolutes with the +telic property of the predicate). The obvious solution is that these are in fact *NP+V-ing* Absolutes in which auxiliary *have* (followed by the past participle) has been deleted:

- (171) a. **The battle having been lost *for an hour***, the city was surrendered by the Serbs
 b. **The room having been tidied *for an hour***, Bill has nothing to do
 c. **The tub having been empty *for an hour***, Sue shivered
 d. **The weapons having been out *for an hour***, the fighting commenced
- (172) a. **The scandal having been out *for an hour***, the gossip began
 b. **The game having been over *for an hour***, the crowds dispersed
 c. **Their pockets having been full *for an hour***, the children ran from the orchard
 d. **The lights having been off *for an hour***, the giggling began

The proposal that they are underlying *NP+V-ing* Absolutes of this kind (i.e. ‘perfects’), as in the (b) examples below, is supported by the fact that bare plural subjects have an existential (as well as a generic) reading:¹⁶⁹

- (173) a. **Battles lost *for an hour***, the city was surrendered by the Serbs
 b. **Battles having been lost *for an hour*...**
- (174) a. **Rooms tidied *for an hour***, Bill has/had nothing to do
 b. **Rooms having been tidied *for an hour*...**
- (175) a. **Tubs empty *for an hour***, Sue shivered
 b. **Tubs having been empty *for an hour*...**
- (176) a. **Weapons out *for an hour***, the fighting commenced
 b. **Weapons having been out *for an hour*...**
- (177) a. **Scandals out *for an hour***, the gossip began
 b. **Scandals having been out *for an hour*....**
- (178) a. **Games over *for an hour***, the crowds dispersed
 b. **Games having been over *for an hour*...**
- (179) a. **Pockets full *for an hour***, the children ran from the orchard
 b. **Pockets having been full *for an hour* ...**
- (180) a. **Lights off *for an hour***, the giggling began
 b. **Lights having been off *for an hour*....**

¹⁶⁹Notice that (173a) and (174a) are verbal passives, unlike the corresponding examples without a *for* adverbial (see (136a) and (137a) which are adjectival passives and have a generic reading only).

To conclude on the comparison between Achievements generally and the events denoted by the Absolutes in (130)a-d and (147)a-d: all the main properties associated by Smith with Achievements generally and identified in (i)-(iv) above have been shown to be shared by these Absolutes. This is consistent with our proposal that unaugmented verbless Absolutes (when not modified by *for* adverbials) are indeed (derived) Achievements. We consider next the implications of this conclusion for subject Case-licensing.

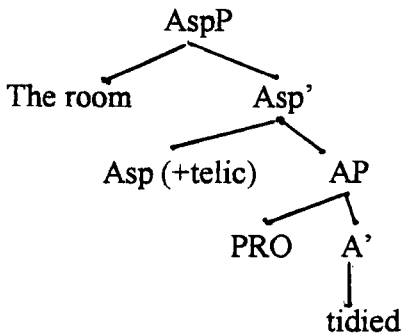
2.5.3.3 Subject Case-licensing in unaugmented verbless Absolutes

Thus far our examination of unaugmented verbless Absolutes has been concerned with identifying what the distinguishing semantic characteristics of these phrases might be. In doing so our objective has been to discover some parallel between these Absolutes and the those discussed in the preceding sections, which might explain, in a manner consistent with the account of subject Case-licensing proposed there, how the subject of these unaugmented verbless Absolutes is Case-licensed (recall from above that the difficulty of accounting for subject Case-licensing along more conventional lines arises because there is no evidence of either a +finite Tense head or an ECM Case-licenser which would make this possible).

At this point it seems evident that a principled explanation is indeed available. The conclusion reached above is that these Absolutes are derived Achievements. As indicated in Chapter 1, Smith attributes to Achievements the features -static; -durative; +telic. Our proposal therefore is that the functional projection posited in 5.1 is an AspP and that the head has the feature +telic. This is the positive counterpart to the -telic head proposed in Section 3 for *NP+V-ing*. The subject of the unaugmented verbless Absolute is inserted directly into [Spec, AspP] where it is Case-licensed by the +telic feature on the head. The EPP is satisfied by virtue of the fact that the subject is inserted directly into the grammatical subject position i.e. the one in which it is Case-licensed (as proposed above for other Absolutes in which, it has been argued, the subject is also inserted directly into [Spec, AspP]).

The structure assumed for unaugmented verbless Absolutives is therefore as follows:

(181)



The analogy with *NP+V-ing* can be extended further by the observation that in Absolutives of the kind in (130)a-d the lexical subject can be replaced by PRO, as in (182)a-d below i.e. lexical NP and PRO are not in complementary distribution (cf.(80)a&b and (81) above):

- (182)
- PRO lost after three days fighting**, the battle was truly a last stand
 - PRO tidied at last**, the room was a wonder to behold
 - PRO empty now**, the tub no longer looked inviting
 - PRO out in a shot when danger threatened**, the weapons were their truest friends

Moreover, a PRO is licensed where lexical NP is not, as in (183)a-d below (cf (3a&b) versus (4a&b) above):

- (183)
- PRO serious but not fatal**, the scandal will not ruin him
 - PRO slow at first**, the game looked like being a waste of time
 - PRO deep and wide**, the children's pockets were perfect for hiding apples in
 - PRO quite funny at times**, Jack had a lot of friends

A +telic Asp head, therefore, is only obligatory when the subject is lexical NP; a PRO subject can have its null-Case feature checked either by the +telic Asp head, as in (182)a-d, or by a non-overt a-telic Asp head, as in (183)a-d.

Finally, notice that the ungrammatical example in (134) above, which Napoli cannot account for, receives a plausible explanation on this system: the predicate is interpreted as a (stage-level) state. It therefore lacks the properties required for Case-licensing i.e either a functional verb (with *ing* affixed) or a +telic Asp head.¹⁷⁰

To sum up this section as a whole: we have argued, on the basis of the interpretation of bare plural subjects and the position of floating quantifiers, that the subject of the Absolutes in (130)a-d (and (147)a-d) is inserted directly into the specifier of a functional projection above the lexical projection. The category of the functional projection has been identified as AspP with the feature +telic on the head. This conclusion is drawn in the light of evidence that the Absolutes denote events which are Achievements derived from States, allowing for a parallel with the other Absolutes analysed as AspPs with an a-telic feature on the head. The +telic Asp head Case-licenses the subject in its specifier and is the positive counterpart to the overtly realised a-telic Asp head already posited for *NP+V-ing* Absolutes. PRO is not in complementary distribution with lexical NP subjects - the conditions under which a lexical NP is licensed are simply stricter than they are for PRO.

2.6 Conclusion

In our analysis of Absolutes in this Chapter, we have provided evidence of a clausal AspP in English which, in terms of underlying syntactic structure and the way in which subject Case-licensing is effected, can be described as the tenseless counterpart of (finite and non-finite) IP/TP. More specifically, both IP/TP and AspP consist of a lexical projection dominated by a functional one (FP) and in each, Case-checking of a lexical subject in a spec-head relation in FP depends on the property associated with the functional head (i.e. tense in TP, and telicity in AspP) having the appropriate value: a +finite head in IP/TP and

¹⁷⁰Contrast (134) with the following two grammatical Absolutes:

- (i) a. **Him/he being cold**, I grabbed a towel
- b. **Him cold at this point**, I grabbed the towel

a +telic head in AspP Case-licenses a subject in the specifier, without further proviso.

When the -value occurs, on the other hand, a type of back-up system comes into operation: in a non-finite IP, a verb or preposition in the matrix clause makes Case-checking available from outside the clause, in a pre-LF ECM configuration; in a clausal AspP, under the same circumstances, two options arise: either the a-telic head must be overtly realised as *ing* (which, in the case of the predicate being stage-level, must, in addition, be affixed to a functional verb), or Case-checking takes place in a pre-LF ECM configuration (as in non-finite IPs). This is achieved via *with*, which we have argued is generated under Asp and moves to C.

Among the advantages of this approach the following three are, perhaps, the most significant: firstly, treating Absolutes as AspP is a principled alternative to treating them as IPs, which we have shown above fails patently when it comes to accounting for the data, particularly the ungrammatical *NP+V-ing* structures presented in 2.1.

Secondly, it establishes a crucial link between certain fundamental aspectual properties of the predicate of Absolutes (i.e. individual versus stage-level, and whether or not it denotes a telic event) and two of the construction's most striking syntactic characteristics i.e. the distribution of functional verbs (in *NP+V-ing* Absolutes) and the fact that in examples like (1c) a subject is Case-licensed without an augmenting preposition or any functional morphology (temporal or aspectual) indicating the presence of a functional head to act as Case-licenser.

Finally, it constitutes a unified account of the three types of Absolute discussed, not hitherto found in the literature.

Chapter 3

English Gerund Clause Complements, AspP and Subject Case-licensing

3.0 Introduction

In Chapter 2 it is argued that *NP+V-ing* and *PRO+V-ing* clauses adjoined to CP (i.e. Absolutes with a lexical and PRO subject, respectively) are AspPs with the subject in [Spec,AspP]. A distinction is drawn there between an Asp head, in this position, capable of licensing a PRO subject, only, and one which can also license a lexical subject. The key observation in this regard has been that although lexical NP and PRO do not have exactly the same distribution in these adjuncts they are not in complementary distribution either.¹ More specifically, it was noted that where lexical NP is possible in this environment PRO is also but not vice versa.

In this chapter the analysis of *NP+V-ing* and *PRO-ing* structures as AspP will be extended and developed further to account for the same structures in complement position (referred to here as ‘Gerund Clauses’); the notion of an AspP gerund complement, in particular one of the kind which will be proposed here, runs counter to the general view of Gerund Clauses found in the literature, where they have been categorised variously as NPs, CPs and IPs, different strategies being devised in each case to explain how exactly the subject is Case-licensed. The interesting fact which we will address here is that, depending on the identity of the matrix verb, the subject can be, optionally, either lexical NP or PRO (e.g. *remember*), lexical NP only (e.g. *see*) or PRO only (e.g. *intend*). The focus in the literature, in contrast to the approach here, has mostly been on devising a mechanism to explain, in principle, the optionality of a lexical NP or PRO subject in Gerund Clauses, without addressing the full details of the distributional pattern, notably overlooking the PRO only

¹See Chapter 2, footnote 85, on claims in the literature that lexical NP and PRO are in complementary distribution.

cases.

As a brief fore-view of the above-mentioned categorial analyses of gerunds which will be rejected here in favour of AspP, the following can be cited as the most prominent examples: Chomsky (1981:64) treats *PRO+V-ing* as NP (with PRO the non-overt counterpart of a lexical NP in genitive Case),² while *NP+V-ing* is assumed to be sentential in character i.e. a type of S. Reuland (1983), on the other hand, analyses both as CPs, invoking affix-hopping at different points in the derivation to distinguish between the lexical NP versus PRO subject alternation.³ Milsark (1988) also gives both *NP+V-ing* and *PRO+V-ing* the same underlying structure i.e. IPs with *ing* under Infl.⁴ However, he proposes that *PRO-ing* is recategorised as a nominal at PF, while *NP+V-ing*, by contrast, undergoes ‘vacuous’ recategorisation and so remains an IP.⁵ Finally, Johnson (1988) treats *PRO-ing* as CP and *NP+V-ing* as IP, with CP providing the necessary barrier to government of PRO in the former. All of the above theories will be fully reviewed in due course below.

A more recent approach to distinguishing between lexical *NP+V-ing* and *PRO+V-ing*

²NP is understood to dominate the nodes NP and VP. Chomsky cites the following examples:

- (i) I'd much prefer [_{NP}[_{NP}his] [_{VP}going to a movie]]
- ii) I'd much prefer [[PRO] [going to a movie]]

He comments that PRO in ii) is ungoverned. This is because the subject of gerunds, unlike the subject of nominals generally, is sister to VP on his analysis. It is suggested that Case-licensing of the subject (genitive) is either optional, so that PRO is not assigned Case, or that it is obligatory but not phonetically realised for PRO (VP is understood to be the source of genitive Case in this environment).

³He suggests that *ing* (under Infl) affix hops onto V at PF in *NP+V-ing* structures, having first governed and transmitted Case to the NP in its specifier, while in *PRO+V-ing* structures, by contrast, it affix hops in the syntax so that government and Case-licensing of the subject do not occur.

⁴Milsark assumes that when the subject of the gerund is PRO the gerund is a barrier to government of PRO from outside i.e. it is a CP, but that ECM from the matrix predicate is possible in *NP+V-ing* structures (e.g. 'I quite approve of *them doing that*').

⁵The PRO subject is therefore Case-licensed in the same way that a genitive lexical NP would be in a nominal but crucially, it is not governed, because the non-finite Infl (*ing*) before recategorisation is not a governor. The lexical subject of the vacuously recategorised IP is Case-licensed (accusative) from outside the clause i.e. by the selecting matrix verb. Notice that on Milsark's account PRO and the NP of *NP+V-ing* appear in different contexts (one where recategorisation takes place, the other where it does not) and so do not give rise to a challenge to the notion that NP and PRO are in complementary distribution.

contexts, also to be rejected here, becomes available with the theory in Chomsky (1995) that PRO may have a null Case feature for checking. More specifically, a minimalist-type account of lexical NP and PRO subjects in infinitivals might be extended to gerunds, so that just as there may be a 'null Case *to*' in infinitivals licensing PRO only, and 'Case-less *to*' licensing lexical NP only (i.e. ECM contexts), some verbs having the option of selecting either (e.g. *expect* or *like*),⁶ there could be 'null Case *-ing*' and 'Caseless *-ing*' with *remember* selecting either, *intend* selecting the former only and *see* the latter only. However, a strategy of this kind would effectively amount to no more than a minimalist reformulation of the idea that certain verbs can select CP, others IP, and others again either CP or IP (where CP would correspond to 'null Case *ing*' and IP to Case-less *ing*); moreover, crucially, an explanation of this kind would not be sufficiently fine-tuned to account for the many syntactic facts to be raised below, which rule out a simple paradigm of this kind.

We take the view, therefore, that a more explanatory account becomes available if we assume that *NP+V-ing* and *PRO+V-ing* gerunds are not NPs, IPs or CPs (dominating IPs) but rather AspPs. In the discussion which follows, the distribution of lexical NP versus PRO in the gerund will be linked to the presence of a feature on the Asp head which will be treated as the syntactic correlate of a specific temporal relationship (of the kind already identified in Stowell 1982b)⁷ between a matrix verb and its Gerund Clause complement. The chapter is structured as follows:

In Section 3.1 some preliminary evidence is provided in support of the two main claims underlying the discussion in the chapter as a whole - these are as follows: i) that gerund complements to V cannot reasonably be classified syntactically along with non-finite clauses generally i.e. as either CP dominating IP (-finite), uniformly, or as optionally CP or IP; ii) that there is a link between lexical properties of matrix V, the temporal interpretation of a gerund complement to V, and the distribution of lexical NP and PRO subjects. The account in Stowell (1982)b of the temporal interpretation of gerund complements to V will be reviewed and its potential (subject to modifications and

⁶ 'Caseless *to*' means that the lexical subject must have its Case checked via an ECM verb or preposition.

⁷Stowell's proposal (reviewed in 3.1.2) is that the Gerund Clause depends for its temporal interpretation largely on the semantics of the governing verb.

developments to be specified in 3.3) to provide the foundation for a more articulated account of the temporal interpretation of gerunds will be demonstrated.

In Section 3.2 those aspects of Reuland (1983), Abney (1987), Milsark (1988) and Johnson (1988) relating to the category of gerund complements to V, are reviewed, with a particular emphasis on assessing the potential of each analysis to account for the distribution of lexical NP and PRO subjects in the gerund, as well as certain other facts noted in the previous section relating to the potential for syntactic movement. It will be argued that none of these can account satisfactorily for the distribution of lexical NP and PRO subjects, particularly over the full range of gerund contexts.

In Section 3.3 the analysis in Stowell (1982)b of the temporal relationship between a matrix verb and its gerund or infinitival complement will be modified and expanded and a default and a marked case for the temporal interpretation of gerunds will be proposed. It will then be argued that Gerund Clauses are AspPs and that the syntactic reflex of the temporal relationship between matrix V and its gerund complement is in the form of a tense feature (T) on the Asp head of the gerund.

Section 3.4 shows how positing a T feature of the kind proposed in the previous section makes available an explanation for the full distributional paradigm of lexical NP and PRO subjects in gerunds which is in keeping with the general findings in Chapter 2 vis-à-vis subject Case-licensing in *NP+V-ing* and *PRO+V-ing* adjuncts to CP. Perception verbs like *see* and *hear* are shown to behave differently in one specific respect from the other gerund-selecting verbs in the context of subject Case-licensing within the gerund - this is attributed to a semantic property of these verbs already identified in Safir (1993).

In Section 3.5 a further difference, of a purely syntactic kind, between gerund complements to perception verbs like *see* and *hear* and other gerund complements to V leads to the conclusion that in the former case, only, two distinct underlying structures are possible, one of which is AspP, the other a double complement structure of the kind proposed for object control verbs in Larson (1991).

Section 3.6 is the conclusion.

3.1 The Category of Gerund Clauses and the Distribution of NP and PRO Subjects

We begin with some preliminary evidence in support of the two contentions underlying the discussion in the chapter as a whole: i) that although Gerund Clauses, considered independently of the matrix clause and the verb which selects them, are clearly non-finite in their semantic interpretation,⁸ they cannot reasonably be classified syntactically along with non-finite clauses generally; ii) that there is a link between the interpretation of tense in gerund complements to V and the distribution of lexical NP and PRO subjects. Consider first the issue of the category of Gerund Clauses.

3.1.1 Gerunds and non-finite clauses (IP/CP): initial indicators that they are categorially distinct

The grounds for proposing that a gerund complement to V is neither a CP dominating IP nor simply an IP, as has been widely argued in the literature (reviewed in 3.2 below) are considerable. Evidence against the possibility that a gerund in this position might be a CP is found in Stowell (1982)b who makes the point that WH-movement never applies *inside* a gerund:⁹ for example, verbs like *remember* and *talk about*, both of which are

⁸For example (i)a&b below are not interpreted as finite:

- (i) a. Mary leaving
b. John eating an apple

⁹WH-movement directly to matrix [Spec, CP], however, does occur:

- (i) a. Who do you remember Mary visiting t ?
b. Who remembers t visiting John?

It is, of course, possible, contra our view and Stowell's, that the WH phrases in (i) have moved through an embedded [Spec, CP] on the way to the matrix [Spec, CP]. Note, however, that if there were no embedded CP, movement of this kind is still predicted to be grammatical: the Gerund Clause is L-marked by matrix V (Chomsky 1986:14) and therefore does not constitute a barrier to antecedent government of either of the traces by the WH-phrase in matrix [Spec, CP] (antecedent government is obligatory for (i)b only, since the trace in (1a) can satisfy the ECP (Chomsky 1986:17) via theta-government).

Note that examples like the following are more puzzling:

- (ii) a. ??Who do you remember Mary liking John visiting t ?
b. ??Who do you remember Mary liking t visiting her?

subcategorized for a Gerund Clause complement, cannot select a +WH gerund, as illustrated in (1) and (2) below; this is in spite of the grammaticality of both a +WH finite clause or a +WH infinitival complement to the same verbs:¹⁰

- (1) a. I don't remember our/PRO visiting John
 b. *I don't remember who our/PRO visiting t
 c. I don't remember who we should visit t
 d. I don't remember who to visit t
- (2) a. We talked about his/PRO doing the dishes
 b. *We talked about what his/PRO doing t
 c. We talked about what we ought to do
 d. We talked about what to do

Likewise, WH-movement of the kind occurring in relative clauses is not possible:¹¹

- (3) a. *The table [on which PRO putting your coat t] is in the next room
 b. The table [on which you should put your coat] is in the next room
 c. The table [on which to put your coat] is in the next room

Examples like the following, in which the gerund occurs as a restrictive modifier, might seem to constitute counter evidence to this claim, since the gerund appears at first to be a reduced relative clause :

- (4) The man [ec reading the book] is my friend

However, Stowell shows that the empty category in structures like (4) is more likely to be a PRO rather than the trace of a phonetically null relative pronoun (moved to [Spec, CP]), given the ungrammaticality of examples like (5), below, in which the ec is a direct object:

If the moved phrase could pass through two [Spec, CPs] on the way to the matrix one, then these examples should be just as grammatical as (i)a&b above i.e. the object trace would satisfy both conditions of the ECP while the subject trace would satisfy only the first (antecedent government). However, they are also predicted to be fully grammatical if the gerunds are without a CP layer on the assumption that the Gerund Clause as a whole is L-marked by matrix V allowing antecedent government from the matrix [Spec, CP] (the absence of obvious barriers rules out the possibility of a simple subjacency violation in either case). (ii)a&b, therefore, do not advance the argument either for or against analysing gerunds as CPs.

¹⁰Stowell's (4)a, (3)a, (1)a, (1)b, (4)b,(3)c,(1)c, and (2)c respectively, adapted.

¹¹Stowell's (5)c, (5)a and (5)b respectively, adapted.

(5) *The city [his/PRO visiting ec] is Paris

If gerunds of the kind in (4) really were restrictive relative clauses then movement of the object rather than the subject, as in (5), should also be allowed.¹² Since it is not, it makes more sense to assume that the ec in (4) is PRO.¹³

Apart from the unaccountable absence of a +WH operator in gerunds, there are also at least two other indicators that a gerund complement to V is not a CP, the first concerning Quantifier Raising, the second the distribution of lexical NP and PRO subjects: Johnson (1988) notes that a quantifier in the subject position of a gerund can have either a narrow or a wide scope reading, as in the following:¹⁴

- (6) a. Someone recalls everyone being born
b. What do you remember everyone eating?
c. Sam remembers no one leaving

May's (1977;1985) Quantifier rule (QR) gives the wide scope readings the following representations:¹⁵

- (7) a. $everyone_i [{}_s \text{ someone}_j [{}_t \text{ recalls } [{}_t \text{ being born}]]]]$
b. $what_j [{}_s \text{ everyone}_i [{}_s \text{ you remember } [{}_t \text{ eating } t_j]]]]$
c. $[{}_s \text{ no one}_j [{}_s \text{ Sam remembers } [{}_t \text{ leaving}]]]]$

Johnson makes the point that the subject trace left by QR in these gerunds would not be able to satisfy the ECP (via lexical government), as it evidently does, if a CP layer

¹²Examples like the following, in which the trace left by WH movement is actually the direct object in a Gerund Clause, can be accounted for without positing a CP layer on the gerund:

(i) The city [[he loves [visiting t]] is Paris]]

Here movement is to the specifier of the +WH comp of the matrix clause. The trace is theta-governed by *visiting* and also antecedent-governed by the non-overt Wh-phrase in [Spec, CP] of the matrix clause, since there are no intervening barriers (as already noted above, the Gerund Clause is L-marked by matrix V).

¹³The Gerund Clause in (4) must be a sister of the noun it modifies so that the latter can control PRO (compare the position which relative clauses are generally assumed to occupy in the literature - see, for example, Haegeman 1991:370, who treats the relative clause as a CP sister to N).

¹⁴Johnson's (36)a-c.

¹⁵Johnson's (37)a-c.

intervened between it and matrix V.¹⁶

Consider, finally, the issue of the distribution of lexical NP and PRO subjects: certain contrasts between infinitival CPs and gerunds with regard to the distribution of lexical NP and PRO support the view that Gerund Clauses are not of the same category as infinitivals. Infinitival clauses, on a GB type approach (Chomsky 1981), are assumed, in the unmarked case, to be IPs dominated by a CP layer (the latter being associated particularly with contexts where either the subject is PRO or C is morphologically realised as *for*). If gerunds were also CP/IPs then the expectation would be, not only that the distribution of lexical NP and PRO subjects should display a similar range of possibilities in both contexts, as in fact it does, but also that it should be possible to account for the distributional paradigm in similar terms. However, as will be demonstrated directly below, this is not what we find: explaining the paradigm in the case of gerunds is considerably more problematic than it is in the case of infinitivals.

Observe, first, how the range of possibilities with regard to the distribution of lexical NP and PRO subjects is the same in each clause type: infinitival complements of verbs like *believe*, *consider* and *know* (i.e. ECM verbs) can have a lexical NP subject only; verbs like

¹⁶He addresses the following apparent counterexamples from Reuland (1983):

- (i) a. What did Cindy hate everybody eating?
b. Cindy hated no-one loving her

Since the the quantifiers in (i) may not take wide scope Reuland concludes that the trace left by QR in the subject position of the gerund is not properly governed (supporting his claim that there is, in fact, a CP layer). However Johnson suggests that because *hate* is a factive verb in the sense of Kiparsky and Kiparsky (1970) the complement clauses in (i) are islands for QR. It may be the case, therefore, that when matrix V is *hate* our proposed AspP is contained within a complex NP as in the following:

- (ii) Cindy hated [NP (the fact)[CP (of) [AspP no-one loving her]]]

This would explain the difference between Wh-extraction of the subject and QR i.e. in the former the trace in [Spec, AspP] is antecedent governed by another trace in [Spec, CP] (*of* is located under C), while in the latter it is not properly governed. If this is the correct explanation for the absence of wide scope readings in (i), the fact that *hate*, on our account, selects an AspP complement with a specific feature on the head determined by lexical properties of matrix V, in spite of the intervening NP and CP layers, would have to be attributed to the non-overt character of these projections i.e. because they are non-overt they would not be 'selected', in the full sense, by matrix V. On the other hand there may be some other reason for the absence of a wide scope reading in examples of this kind.

try, *promise* and *persuade* (i.e. obligatory control verbs) obligatorily require a PRO subject in the infinitival complement, and those like *prefer*, *want*, *intend* and *expect* allow either a lexical NP or a PRO subject, as illustrated in (8)a-c respectively below:

- (8) a. The professor believed/considered/knew the students/*PRO to be clever
b. (i) John tried * Mary/PRO to win
(ii) John promised/persuaded Mary *John/PRO to help
c. The students preferred/wanted/liked/expected the professor/PRO to attend

With Gerund Clauses the same three possibilities are found, again depending on the identity of matrix V: some verbs allow either lexical NP or PRO, as in (9)a&b below :

- (9) a. John remembered/recalled/regretted Mary/PRO leaving
b. John preferred/liked/appreciated Mary/PRO living next door

Others allow lexical NP only (perception verbs), and others again allow PRO only (e.g. *intend* and *recommend*) as in (10)a&b respectively:

- (10) a. The lecturer saw/heard the students/*PRO talking to the provost
b. The boss intended/recommended/proposed/anticipated*the manager/PRO retiring soon¹⁷

Although, as seen above, the range of options is the same for infinitivals and gerunds it is worth noticing at this point that while the general case with regard to gerunds is that either subject type is allowed,¹⁸ with infinitivals this situation arises only with a very limited set of verbs i.e. those like *want* and *prefer*, and also with the verb *expect*.¹⁹ Consider now how the threeway paradigm illustrated above might be accounted for in the case of infinitivals.

¹⁷Some speakers hesitate at completely ruling out a lexical NP with some of these verbs e.g. *anticipate*, but agree that they sound very odd and that a finite clause in place of the gerund would be the 'right' way to put it. All observe a difference in terms of acceptability between a lexical NP in this environment and one in examples like (9a&b).

¹⁸Gerunds in which this alternation is not possible are complements to perception verbs, future-oriented verbs like *intend*, and so-called verbs of temporal aspect (VTA) e.g. *stop* and *start*. VTAs will not be addressed here as initial indicators suggest that they are not AspPs of the kind to be proposed here.

¹⁹Note that the potential of these verbs to have an infinitival complement with either subject type is attributed by Chomsky (1981:69/70) to the availability of a marked option in each case (to be discussed below).

The complements in (8)a&b, on a Chomsky (1981) type analysis, are presumed to be IP and CP respectively: the licensing of a lexical NP subject, only, in the former, indicates the absence of a CP layer, allowing the matrix verb to govern and Case-mark the subject in [Spec,IP],²⁰ while the PRO subject in the latter is protected from government by the additional CP layer. Examples like (8)c, in which a single verb takes a non-finite complement with either a lexical NP or a PRO subject, force the assumption that optionality of some kind is involved in these cases only.

In the case of matrix *want* and *prefer* the optionality arises in the following way: the infinitival complement is understood to be a CP, regardless of subject type - when the subject is lexical there is an underlying preposition in C which Case-licenses the subject in [Spec, IP] and which undergoes deletion, optionally, at PF;²¹ when it is PRO there is no preposition at any point in the derivation, leaving PRO ungoverned, as required by the PRO Theorem.²² The underlying structure of the relevant examples in (8)c, therefore, is as follows:

- (11) a. The students preferred/wanted [_{CP} (for)[_{IP} the professor to attend]]
 b. The students preferred/wanted [_{CP} [_{IP} PRO to attend]]

The claim that examples with *want* and *prefer* are always CP is motivated firstly by the fact that these have a counterpart with an overt *for* in C (see 12a below) (which Case-licenses the subject in [Spec,IP]) and secondly that passives of the kind found in infinitival complements to *believe* (and *expect*) are not grammatical, as illustrated in (12b):

²⁰Chomsky (1981) proposes that S'/CP deletion takes place in ECM contexts and that this is the marked case. Another way of describing the difference between the two contexts would be to say that *believe* type verbs select IP only and obligatory control verbs select CP only.

²¹The proposed rule of *for*-deletion in the PF component applies in immediate post-verbal position only (Chomsky 1981:69):

- (i) John wants very much for Bill to win
 (ii)*John wants very much Bill to win

²²The claim that *want* and *prefer* in examples like (8c) can have an underlying *for* which Case-licenses the infinitival subject and undergoes a free rule of complementiser deletion originally appears in Chomsky and Lasnik (1977:442). Note, however, that Chomsky and Lasnik, unlike Chomsky (1981), treat examples with *want* and *prefer* with a non-lexical subject (in the infinitive) as an instance of Equi-NP deletion rather than Control. Chomsky and Lasnik assume that Control applies only where lexical NP is prohibited (e.g. (8b) above). By positing Equi-NP deletion for examples like (8c) they were able to sustain this claim more fully.

- (12) a. The students preferred/wanted [for [the professor to attend]]
 b. Mary was *preferred/*wanted/believed/expected t to have left

Moving on now to Chomsky's analysis of examples in which the matrix verb is *expect*, the grammaticality of passives of the kind in (12b) is taken into account, as well as the fact that the subject can be PRO (as in (8c)) by assuming that the matrix verb has the option to take either an IP (via CP deletion) or a CP (the former when the subject is lexical NP, and can move to matrix subject position under passivisation, the latter when it is PRO). The following, therefore, are the potential underlying structures assumed when the matrix verb is *expect*:

- (13) a. The students expected [_{IP} the professor to attend]]
 b. The students expected[_{CP} [_{IP} PRO to attend]]

To sum up on the above GB type account of lexical NP and PRO subjects in infinitival complements: a complement selected by V is a CP with a PRO subject in the unmarked case (e.g. control verbs such as *try* and *persuade*); as a marked option arising when matrix V is *prefer* etc. the head of CP can be filled by a deletable *for* so that either a lexical NP or a PRO subject is possible in these cases. Infinitivals with an obligatory lexical subject occur as the result of a second marked option associated with the relevant verbs (e.g. *believe* and *expect*), namely, CP deletion. Since in infinitival complements of the verb *expect* both subject movement to matrix [Spec,IP] under passivisation and PRO subjects are possible the conclusion is that this verb has the option to occur either with an IP or a CP complement. Next we address the claim that the above account of the distribution of lexical NP and PRO subjects in infinitival complements to V does not extend well to gerund complements to V.

The main problem which arises in applying the above approach to gerunds is the over-reliance which this necessitates on the notion that a matrix verb can optionally select either a CP or an IP. Recall from above that with infinitivals, on the Chomsky (1981) approach, only a very limited number of verbs exhibit the property of being able to optionally select either CP or IP, *expect* being the example typically cited. This is because in the majority of cases in which the infinitive can have either a lexical NP or a PRO subject an alternative

explanation (to optional IP/CP selection) is available, namely, an underlying, deletable *for* which Case-licenses the lexical subject (e.g. with *want* and *prefer*).²³ The availability of this alternative, together with the ungrammaticality of passives in the relevant examples (see (12)b above), supports the assumption that the matrix verb in such cases always selects CP. With gerund complements to V the situation is very different for the three reasons set out below.

Firstly, the lexical NP/PRO alternation occurs in the majority of cases (as demonstrated above) and so positing a marked rule of any kind to account for this would not seem to be appropriate. Secondly, there is no evidence that the marked rule invoked to cover the commonest instance of optionality with infinitivals (i.e. an underlying deletable *for*) could also exist for gerunds since, as illustrated below, an overt *for* never occurs before gerund complements to V:²⁴

- (14) a. *John remembers/recalls/regrets for Mary arriving early
 b. *John prefers/ likes/ hates for Mary arriving early

Thirdly, neither is there any evidence that the other marked rule proposed for infinitivals i.e. optional S'/CP deletion, could exist for gerunds since, with the exception of perception verbs, these do not allow passivisation of the kind found with *expect*:

- (15) a. Mary was believed t to be clever

²³Of course *for* can also occur preceding *expect*. However, if for this reason it were to be assumed that *expect* also takes a CP obligatorily (with a deletable *for* when the subject is lexical) then (12b) above, in which the subject of the infinitival complement moves to matrix subject position under passivisation, could not be accounted for.

²⁴Examples like the following are indeed possible:

- (i) We remembered Mary[*for* PRO having a good memory]
 (ii) Mary was remembered t [*for* PRO having a good memory]
 (iii) [PRO having a good memory] is what Mary was remembered for
 (iii) What Mary was remembered *for* was [PRO having a good memory]

For in these cases differs from the complementiser found in examples like (12a) above in three respects: firstly, it introduces an adverbial clause i.e. one which explains *why* Mary was remembered; secondly, it has clear semantic content (causal); thirdly, it does not Case-license the specifier of its complement via ECM.

- b. *Mary was remembered/²⁵preferred/wanted/appreciated t buying the dress

In short, the distribution of lexical NP and PRO subjects in gerunds is not amenable to the same explanations as those generally offered in the GB literature for non-finite clauses, in spite of the superficial similarities between the two cases.

The discussion in this subsection has so far focussed on the claim that gerund complements to V are not CPs dominating IPs. With regard to the claim at the outset that neither are they bare IPs we note briefly below two main contrasts between infinitivals and gerunds in complement position to V: firstly, infinitivals cannot occur in WH-clefts while gerunds can, as illustrated in the following:^{26,27}

- (16) a. John believes Mary to be clever
 b. *Mary to be clever is what John believes
- (17) a. John remembers Mary leaving
 b. Mary leaving is what John remembers

Secondly, the subject of an infinitival can move to matrix subject position in a passive, while (as already demonstrated in (15)b) the subject of a gerund cannot.²⁸ The two asymmetries effectively become irrelevant in our analysis of gerunds as AspPs. We turn now to some initial indicators that our second main contention identified in the introduction to this section is on the right track i.e. the notion that the distribution of lexical NP versus PRO subjects in the gerund is linked to the temporal relationship between the matrix verb and the event referred to in the gerund.

²⁵Passivisation when the matrix verb is *remember* sounds better for some speakers than with other verbs. One possible reason for this is that remembering is a type of 'seeing' (in the mind). Since perception verbs do allow passivisation of this kind (see (74b) below), *remember* in such cases may be interpreted by these speakers as a perception verb (It will be argued in 3.5 that perception gerunds, unlike other gerunds, can have two possible underlying structures, only one of which yields passives).

²⁶The ungrammaticality of (16)b is not surprising if we assume that ECM Case to the embedded subject requires adjacency. The fact that (17)b is grammatical supports the argument to be presented further below that the embedded subject in the gerund does not get Case from matrix V. Note also that an adverb inserted before the gerund simply sounds odd, while an adverb between the matrix verb and an infinitival is ungrammatical:

- (i) ?John remembers perfectly Mary leaving
 (ii) *John believes strongly Mary to be brave.

²⁷PRO-ing gerunds also behave differently from infinitivals in clefts.

²⁸Similar examples are discussed in Reuland 1983:112 and Johnson 1988:594, to be reviewed in 3.2.

3.1.2 Distribution of lexical NP and PRO subjects in Gerund Clauses: evidence of a link with the interpretation of tense

Our objective here is to provide some preliminary evidence that the distribution of lexical NP and PRO subjects in gerund complements to V is linked to their temporal interpretation. In analysing the temporal interpretation of gerund complements to V we will be drawing on the theory proposed in Stowell (1982)b, reviewed directly below, that the tense of the gerund is largely determined by certain properties of matrix V. Although Stowell's account of the way in which matrix V determines the temporal interpretation of the gerund is less explicit than ours and differs to some extent with regard to the emphasis placed by him on the semantics of matrix V, we agree that a close temporal relationship exists between matrix V and its gerund complement (and that a similar relationship holds between matrix V and non-finite IP complements i.e. infinitivals without a CP layer).

3.1.2.1 Stowell (1982)b on the tense of gerunds

Stowell proposes that infinitivals without a CP layer (e.g. ECM complements) and gerunds can together be contrasted, in terms of their temporal interpretation, with finite clauses and infinitivals with a CP layer (e.g. control complements). More specifically, the tense of IPs and gerunds is understood to depend largely on the semantics of the governing verb while CPs (i.e. finite clauses and non-finite CPs) have their tense determined independently. The theory underlying this is that there is a tense operator under Infl generally, and that in constructions where CP dominates IP this operator moves to Comp at LF enabling the clause to be specified as either +/-past or 'unrealized with respect to the tense of the matrix' i.e. a possible future.²⁹ In structures where Comp is absent e.g. infinitival IPs and Gerund Clauses (Stowell, as indicated above, assumes that gerunds are without CP), the operator movement is not possible and so semantic properties of the governing verb largely

²⁹Note that a CP with the temporal interpretation 'unrealized with respect to the matrix' can be either finite or non-finite. When it is finite you get a tensed verb in future tense; when it is non-finite you get a control-infinitive.

determine the interpretation of tense in the complement.

Below the relevant contrasts in terms of temporal interpretation are illustrated, the examples of CPs in (18) being contrasted with the infinitivals and gerunds in (19) and (20) respectively.³⁰

- (18) a. John remembered [[PRO to bring the wine]]
b. John convinced his friends [[PRO to leave]]
c. The table [on which[PRO to put your coat] is in the next room
- (19) a. I remember [John to be the smartest]
b. Bill considers [himself to be the smartest]
c. I expect [John to win the race]
- (20) a. Jenny remembered [PRO bringing wine]
b. John prefers [PRO living next-door]³¹
c. John recommended [PRO leaving early]

The complements in (18)a-c all refer to possible future events (with respect to the matrix event), and exemplify tense determined via the proposed 'tense operator' under Infl which moves to Comp at LF. The IP complements in (19)a-c, by contrast, are dependent for their temporal interpretation on semantic properties of the governing verbs i.e. *remember* in (19)a yields a past tense IP complement, *consider* in (19)b a present,³² and *expect* in (19)c a possible future. The gerund complements in (20)a-c, like the IPs, are also interpreted as past, present and (possible) future tense respectively, again as predicted by semantic

³⁰The examples in (18) are Stowell's (8a),(11a) and ((b), respectively. (19a) is his (13b). (19)b&c are not Stowell's but are introduced to complete the paradigm of temporal interpretations available to a gerund, on Stowell's theory. (20a) is Stowell's (8b). (20b&c) are our own.

³¹Note that to use *consider* here instead of *prefer* (cf (19b)) would not be appropriate in spite of the fact that *consider* can select a gerund complement. This is because the *consider* which selects an infinitival complement has a different meaning from the one which selects a gerund. In the former case (*consider*) it is synonymous with *believe* (i.e. a stative) while in the latter (*consider*) it is synonymous with *think about* i.e. an activity (in the terms of Vendler 1967). This point is illustrated in the following showing the ungrammaticality of progressive with *consider*₁ but not with *consider*₂:

- (i) *John is considering [himself to be the smartest]
(ii) John is considering [PRO leaving]

³²Although Stowell cites this as an example of a structure in which the tense of the complement is not independently determined, he does not discuss exactly what the semantic properties of the matrix verb are which determine the present tense of the infinitival. We will address this issue in detail in 3.3.1 below.

properties of the matrix verbs.

Consider now how Stowell's theory of the close temporal relationship between the matrix verb and its gerund complement might be developed to explain the distribution of lexical NP and PRO subjects in the gerund. Our initial observation is that there is evidence of a correlation between the prohibition on a lexical NP subject and the temporal interpretation of the gerund. Consider, for example, the distribution of subject types in (21)a-c below, showing gerund complements interpreted (in the manner proposed by Stowell) as referring to past, present and future time, respectively:

- (21) a. John remembers/recalls/regrets [Mary/PRO bringing the wine]
b. John prefers/likes/hates [Mary/PRO living next-door]
c. John intends/proposes/recommends/plans/considered/
advocates [Mary*/PRO leaving after lunch]

The only context where a lexical NP subject is prohibited in the gerund is in examples like (21)c where the event of the gerund is interpreted as 'unrealized with respect to the matrix predicate' i.e. a possible future *only*.³³ Otherwise either a lexical NP or PRO subject is possible (i.e. both when the gerund refers to past time in relation to the matrix, as in (21)a, and when it refers to an event which is contemporaneous with the matrix, as in (21)b).³⁴

Apparent exceptions to this pattern arise when matrix V is either *fear* or *anticipate*. As illustrated in (22)a&b and (23)a&b below, both take gerund complements which refer to future time only (the examples in (a) are paraphrased in (b)). The subject of these gerunds, however, contrary to expectations here, can be either lexical NP or PRO (recall that with

³³Note that although the gerund complement of *imagine* typically refers to a future event, as in (i) below, (ii) shows that this is not obligatorily the case:

- (i) John imagined himself winning the prize
(ii) John could imagine his mother doting on him as a child

Since these verbs do not only refer to future events then they are not expected to pattern with those like *intend* in terms of potential to allow a lexical or PRO subject.

³⁴Except for gerund complements to a perception verb, which, as noted above, always have a lexical NP subject.

'future-oriented' matrix verbs only a PRO subject is predicted on our theory):

- (22) a. John fears [Mary/PRO living next door]
b. John fears/is afraid that Mary/he will be living next door
- (23) a. John anticipates [Mary/PRO leaving after lunch]
b. John anticipates that Mary/he will be leaving after lunch

Observe now an important difference between these particular future-oriented matrix verbs and the future oriented verb *intend* which, as predicted, does not allow a lexical NP subject: only *fear* and *anticipate* allow paraphrases of the gerund in which the words *the possibility of* are inserted between matrix V and the gerund subject.³⁵

- (24) a. John fears *the possibility of* Mary living next door
b. John anticipates *the possibility of* Mary leaving after lunch
c. *John intends *the possibility of* Mary leaving after lunch

This suggests that the gerund complements of *fear* and *anticipate* in (22)a and (23)a might actually be complex DPs in which the words *the possibility of* are phonetically null. If this is correct then the subject of *Mary* is Case-licensed by the phonetically null preposition *of*.³⁶ The fact that extraction of the lexical NP subject of these gerunds (i.e in (22)a (23)a) is either very marginal or ungrammatical supports this theory (the subject trace inside the complex DP fails to be antecedent-governed):

- (25) a. ?*Who does John fear [_{DP} [t living next door]]?
b. ?*Who does John anticipate [_{DP} [t leaving after lunch]]?

³⁵Note that *intend* can, in principle, take a DP object (*John did not intend murder*). It cannot therefore be claimed that (24c) is ruled out on the grounds that *intends* is not subcategorised for a DP complement.

³⁶ The fact that *the possibility of* can also arguably be inserted before gerund complements of the other future-oriented verbs cited (e.g. *John proposes/recommends/advocates the possibility of Mary leaving after lunch*) is not of significance here since these verbs, unlike *fear* and *anticipate*, do not also allow lexical NP subjects in a gerund complement. The phrase *the possibility of* cannot be phonetically null in these cases (in contrast to examples with *fear* and *anticipate*) - if it could be phonetically null then a lexical NP subject in the gerund, Case-licensed by the phonetically null preposition would be expected. If, as assumed here, the complex DP account of lexical NP subjects in gerund complements of *fear* and *anticipate* is correct, what remains to be explained is why *the possibility of* can be phonetically null with *fear* and *anticipate* (with *of* Case-licensing the lexical NP subject in the gerund) but not with *propose/recommend/advocate*. The difference may lie with the lexical meaning of the verbs concerned. For example, it may be the case that *fear* and *anticipate* imply 'possibility' more strongly than the other verbs concerned and so can occur with the null form of the noun.

Compare these with the fully grammatical extractions in (26)a&b:

- (26) a. Who does John fear [t will be living next door]?
b. Who does John anticipate[t t will be leaving after lunch]?

What we propose therefore is that when *fear* and *anticipate* take a gerund complement with a lexical NP subject the complement of matrix V is a complex DP. The gerund embedded in the DP is categorially distinct from all the other gerunds in (21)a-c (which we will argue further below are clausal AspPs selected by the matrix verb). These gerund complements of phonetically null *possibility (of)* are nominals of some kind, as distinct from clausal AspPs. When the subject of a gerund complement of *fear* and *anticipate* is PRO a different structure is involved - there is no phonetically null complex DP, the gerund is clausal (an AspP), and is categorially identical to all the other gerund structures in (21)a-c.

Finally, notice that the complex DP account of lexical NP subjects in gerund complements of V proposed above applies uniquely to verbs like *fear* and *anticipate*. It cannot be extended to lexical NP subjects in the gerunds of (21)a&b. This is evident from the fact, illustrated below, that these cannot be adequately paraphrased in the same way i.e by inserting *the possibility of*.³⁷

- (27) a. #John remembers/recalls/regrets *the possibility (of)* Mary bringing the wine
b. # John prefers/likes/hates *the possibility (of)* Mary living next-door

Our conclusion holds therefore that in the constructions which we are concerned with here (i.e 'clausal' gerunds) the only context where a lexical NP subject is prohibited in the gerund is in examples like (21)c where the event of the gerund is interpreted as 'unrealized with respect to the matrix predicate' i.e. a possible future *only*. Otherwise either a lexical NP or PRO subject is possible (i.e. both when the gerund refers to past time in relation to the matrix, as in (21)a, and when it refers to an event which is contemporaneous with the

³⁷Although it could be argued that *the fact of* could be substituted for *the possibility of* (in all cases except with *prefer*: ?*John prefers *the fact of* Mary living next-door) this cannot be sustained as extraction of the subject of the gerund is grammatical in these examples (cf. (25a&b)), arguing against a complex DP account:

- (i) a. Who does John remember/recall/regret/recall t bringing the wine?
b. Who does John prefer/like/hate t living next-door?

matrix, as in (21)b). The full significance of this observation will become clear in 3.4 where an account of the precise relationship between lexical properties of the matrix verb and the distribution of subject types in the gerund will be proposed.

Having outlined above the preliminary grounds for proposing that gerunds are categorially distinct from CP/IPs and that the distribution of lexical NP and PRO subjects is linked to the close temporal relationship between matrix V and its gerund complement, we turn in the next section to a review of the relevant literature on gerund clauses.

3.2 Category of Gerund Clauses and Distribution of Lexical NP and PRO Subjects: review of the literature

The categorisation of *NP+V-ing* and *PRO-ing* gerunds in the literature as CP dominating IP (Reuland 1983), IP and CP respectively (Johnson 1988), both DPs externally (Abney 1987), or a combination of these categories (e.g. via recategorisation in the syntax as proposed in Milsark 1988) reflects the generally complex character of their syntactic behaviour.³⁸ Below we examine the above-mentioned literature, paying particular attention to assessing the potential of each analysis to account for the subject Case-licensing, clefting and passivisation facts noted in 3.1.1 above; it should become clear that none of the categorial analyses proposed provides a satisfactory account of all of these issues .

3.2.1 *NP+V-ing* and *PRO-ing* as CP (Reuland 1983)

Since Reuland (1983) has already been reviewed in the earlier discussion on Absolutes, we restrict our comments at this point to a very brief summary of Reuland's approach to gerund complements to V and proceed directly to a discussion of its effectiveness in

³⁸ For example, they have the distribution of nominals but are clause-like with regard to agreement and adverbial modification.

addressing the main areas of concern here.

As indicated above, both *NP+V-ing* and *PRO-ing* are treated by Reuland as CPs;³⁹ in *NP+V-ing* contexts the matrix verb is understood to govern and assign Case to the embedded Infl (overtly realised as *ing*), which in turn is transmitted to the subject in [Spec, IP].⁴⁰ In *PRO-ing* contexts *ing* affix-hops onto V in the syntax leaving the subject in [Spec,IP] ungoverned (with *NP+V-ing* the proposed affix-hopping takes place at PF).

This theory has the advantage of being able to account satisfactorily for at least two of the key properties of Gerund Clauses referred to above and illustrated again here i.e. the grammaticality of clefts and the ungrammaticality of passives:⁴¹

- (28) a. John remembers [[Mary leaving]]
b. [[Mary leaving]] is what John remembers t
- (29) *Mary was remembered [[t buying the dress]]

Since Case for the embedded lexical subject comes from *-ing* under Infl rather than the matrix verb there is no requirement that it (the gerund subject) should be adjacent to *remember*, hence the grammaticality of the cleft in (28)b. (29) is ruled out because of an ECP violation: the embedded *infl* is not a proper governor for the subject trace,⁴² the matrix

³⁹He uses S' for CP.

⁴⁰Recall from Chapter 2 Reuland's explanation of how V manages to govern (and assign Case to) Infl across the proposed CP layer: the Comp position is empty at DS therefore the verb is actually subcategorised for Infl, realised as *ing*. On the assumption that when a head is subcategorised for a particular complement it also governs that complement then matrix V governs Infl, not C, in this context.

⁴¹Although Reuland can also account for the distribution of PRO and lexical NP subjects in the gerund we have already argued in Chapter 2, section 2 that his solution is not convincing.

⁴²Reuland (p.122) gives the following definition of 'proper government' by a head *a*: *b* is properly governed by *a* iff *b* is governed by *a* under (a) below and *b* is in the complement of *a* (Infl is ruled out as a proper governor of the subject by the latter proviso, at least).

'Government' is defined as follows:

a governs *b* if

b is in the 'governing domain' of *a* and

(a) *a* has a lexical feature or is co-indexed with *b*, or

(b) *a* is subcategorised for *b*

As an example of 'co-indexation' Reuland cites a Comp co-indexed with a subject trace in [Spec, IP]. His

verb cannot lexically govern [Spec,IP],⁴³ and, since passivisation involves A-movement, there is no trace in [Spec,CP] to antecedent-govern the subject trace via co-indexation.⁴⁴

In spite of the above advantages three main problems arise with Reuland's analysis. Firstly, there is Stowell's argument that since WH-movement never applies inside a gerund (examples repeated below) these clauses must be without a CP layer:

- (30) a. *I don't remember who our/PRO visiting t
b. *We talked about what his/PRO doing t
c. *The table [on which PRO putting your coat t] is in the next room

Although Reuland does take this fact into account, his explanation for it is effectively theory-internal: recall from above that on his analysis matrix V governs and assigns Case to *ing* under Infl across an intervening CP layer. His argument is that if the gerund were +WH this feature would be located under C (i.e. C would not be empty at DS). Since C would then be non-empty at DS matrix V would have to select it and consequently govern that position. As a result Infl would neither be governed nor Case-marked by V. Now Reuland assumes that gerund complements to V must have Case (they are referred to as 'nominal-ing' clauses as distinct from 'participial clauses' which do not require Case). (30)a-c are ungrammatical, therefore, on his account, because Infl (*ing*) fails to get Case across the +WH Comp.⁴⁵

definition of 'governing domain' (p.122) basically covers the same ground as later definitions (e.g. Chomsky 1986) which require c-command by a governor of a governee, absence of intervening barriers and observance of minimality conditions on government.

⁴³Reuland's explanation for this (p.113) is that the domain of *ing* is inaccessible to government by a governor outside it.

⁴⁴Antecedent government by the moved subject is prevented by the CP/IP barrier of the Gerund Clause (see footnote 40 above).

⁴⁵The ungrammaticality of (30)a-c is described by Reuland as a violation of his principle (38), which is as follows:

(i) *-ing* can be nominal only if it is in a Case position

Nominal *-ing* phrases are those occurring in the following positions: i) complement to V (or V+P); ii) [Spec, IP] i.e. as a subject clause; iii) adjunct i.e. as an Absolutive. Unlike participial *-ing* phrases, they are understood to have a nominal element under Infl which must be Case-marked.

This solution is theory-internal for the following reason: the absence of WH-movement is attributed to a feature on C which prevents government and Case-marking of Infl (*ing*). However, this presupposes that there is actually a C head in gerunds; if there is not, then the solution collapses.

The second problem with Reuland's analysis concerns the notion of affix-hopping applying either in the syntax or at LF, which is intended to explain the lexical NP versus PRO subject alternation found in Gerund Clauses selected by verbs like *remember*. Not only is the notion that it can occur optionally either at SS or PF merely descriptive, but also, as already demonstrated, not all Gerund Clauses allow this alternation: perception verbs prohibit a PRO subject in the gerund and verbs like *intend*, *recommend*, *advocate*, *propose*, and *consider* allow PRO only. The distribution of lexical NP and PRO subjects would therefore be reduced to lexical idiosyncrasy i.e. some matrix verbs would allow affix-hopping either at SS or PF, others at SS only and others again at PF only.⁴⁶ Moreover, in a minimalist framework, this account could not be maintained in any case.

In fact Reuland does, indirectly, make available an explanation for the prohibition on PRO subjects when matrix V is *see* (henceforth 'perception gerunds'): he suggests, in a footnote,⁴⁷ that the perception gerund, unlike other gerunds, may actually be a small clause of the kind found in the following:

(31) Everyone was seen [t in the garden]

A PRO subject would then be prohibited on the assumption that matrix V Case-licenses the SC subject via ECM. However, Johnson (1988) argues convincingly against a SC analysis of perception gerunds.⁴⁸ Moreover, the situation remains one in which the

⁴⁶Johnson (1988:593) also notes that perception verbs with gerund complements are not well accounted for under Reuland's affix-hopping theory.

⁴⁷His footnote 7.

⁴⁸Reuland suggests that the SC could be VP, AP or simply consist of a subject with *PRO-ing* as predicate. With regard to the possibility that it could be VP, Johnson notes that passive subject-to-subject movement is not possible with bare VP complements of perception verbs generally (see Safir 1993 for arguments that bare infinitives are bare VPs):

distribution of lexical NP and PRO subjects in non-perception verb contexts would still have to be reduced to lexical idiosyncrasy of the kind referred to above.

To sum up our assessment of Reuland's account of Gerund Clause complements: the claim that, with verbs like *remember*, Case-licensing of the gerund subject takes place from within the gerund (i.e. from *ing* under Infl rather than via ECM) seems to be correct, given that movement of the subject to matrix [Spec, IP] under passivisation is not grammatical. It is also plausible to suggest that with perception gerunds the underlying structure may be different from the general case, in view of the fact that with these passives are possible.

On the negative side: there is no morphological evidence of a CP layer in Gerund Clauses i.e. either a WH-morpheme or an overt complementiser, the notion of optional affix-hopping is merely descriptive, the distribution of lexical NP and PRO subjects in contexts other than perception gerunds would have to be reduced to a lexically idiosyncratic rule of affix-hopping and, finally, a SC analysis of perception gerunds is not plausible.

(i)*Daniel was seen [t drink Molsons]

Labeling it AP would also encounter problems, assuming that the (participial) adjective would assign an agent theta-role to the embedded subject: this is because adjectives formed by *ing* affixation do not have the same range of theta-roles that their root verb has. For example the adjective *promising* has only a theme role to assign, while its verb counterpart, *promise*, can assign either a theme or an agent role to its subject:

- (i) a. promising argument/*man
b. I promise to convince Betsy

Argument in (i)a gets correctly interpreted as a theme so that the phrase means 'an argument which holds promise'. *Man* in the same slot, however, is unacceptable because it gets incorrectly interpreted as an agent when the adjective has only a theme role to assign. The verb (*promise*) in (i)b, by contrast, can assign an agent role (to its external argument). Returning now to perception gerunds:

(ii) I saw [Mary promising to leave]

If *promising* is an adjective heading an AP Small Clause, along the lines suggested by Reuland, then *Mary* should be interpreted as a theme; since it is in fact interpreted as an agent, the AP Small clause analysis of perception gerunds seems not to be correct.

The third alternative i.e. that the gerund complement might be a small clause with *PRO-ing* as predicate is unattractive on theoretical grounds since there is no obvious category label for a 'small clause' complement of this kind.

In the next subsection we review Abney (1987) in which *NP+V-ing* and *PRO-ing* are labelled DPs externally but IP internally.

3.2.2 *NP+V-ing* and *PRO-ing* as DP adjoined to IP (Abney 1987)

It has already been argued in 2.2. that Abney's account of *NP+V-ing* (*Acc-ing*) and *PRO-ing* gerunds seems not to be correct when applied to subject Case-licensing in Absolutes - recall his theory that they are formed when DP adjoins to IP in the syntax, without projecting its own structure (D' and D).⁴⁹ Our concern here is, firstly, to identify some of the main evidence cited by Abney in support of the claim that these gerunds are IPs internally and DPs externally; secondly, to explain the extent to which his analysis of *NP+V-ing* and *PRO-ing* gerunds in complement position can be said to account for the clefting, passivisation and subject-licensing facts raised above, and thirdly, to sum up the main weaknesses of Abney's analysis.

In treating *NP+V-ing* and *PRO-ing* as IP internally Abney seeks to capture the fact that they have the following features in common with sentences generally (i.e. CP/IPs): (i) a direct object gets assigned accusative case like the direct object of transitive verbs in sentences generally (unlike the object of *ing-of* gerunds);(ii) conjoined *NP/PRO-ings*, like conjoined sentential subjects, show singular default agreement (unlike conjoined *poss-ing* gerunds and other conjoined nominals which trigger plural agreement); (iii) the subject of *NP+V-ing* can be accusative or nominative, and in this respect contrasts with the subject of *poss-ing* gerunds and other nominals, which receive genitive Case; (iv) *NP/PRO-ing* takes an adverb rather than an adjective (unlike *of-ing* gerunds and other nominals);⁵⁰(v)

⁴⁹As a result of this adjunction *NP+V-ing/Acc-ing* gerunds, as noted above, derive the feature composition {+F+N} meaning that they are a combination of functional and nominal properties but distinct from nominals which are nominal but without functional properties i.e. {-F +N} and also distinct from IPs which are functional but without nominal properties {+F -N}.

⁵⁰Note that *poss-ing* gerunds resemble *NP/PRO+V-ing* gerunds in also taking adverbs instead of adjectives:

- (i) I remember Mary secretly/secret* writing the letter
- (ii) I remember Mary's secretly/secret* writing the letter

it can take a sentential adverb when it is in a non-argument position.⁵¹

The proposal that these gerunds are DPs at their outermost level is intended to reflect their noun-like distributional pattern, allowing them to occur in the following positions, from which sentences are excluded (examples below):⁵² (i) object of a preposition (32a); (ii) subject of a sentence where subject-auxiliary inversion has applied (33a); (iii) subject of an embedded sentence (34a); (iv) subject of a sentence following a sentence-initial adverb (35a); (v) topic position (36a); and (vi) cleft position (37a):⁵³

- (32) a. I learned about John smoking stogies
b. *I learned about that John smokes stogies
- (33) a. ?Would John smoking stogies bother you
b. *Does that John smokes stogies bother you
- (34) a. ?I believe that John smoking stogies would bother you
b. *I believe that that John smokes stogies bothers you
- (35) a. Perhaps John smoking stogies would bother you
b. ?? Perhaps that John smokes stogies bothers you
- (36) a. ?John smoking stogies I can't abide
b. *That John smokes stogies I can't believe
- (37) a. It's John smoking stogies that I can't abide
b. *It's that John smokes stogies that I can't believe

Consider now the extent to which Abney's theory can account for the clefting,

Contrast:

(iii) I remember Mary's secret/secretly* writing of the letter

⁵¹Abney's example (192a):

- (i) a. John probably being a spy, I was concerned
b. *John's probably being a spy, I was concerned

Note that *poss-ing* gerunds or *ing-of* gerunds do not occur in non-argument position.

⁵²The grammaticality judgements provided are Abney's and concur with our own. However, it should be pointed out that there are speakers who would rate (33a) fully acceptable rather than marginal, (34b) marginal rather than actually unacceptable, and (37b) acceptable rather than unacceptable. Be that as it may, it seems that, with the exception of the last case, there is general agreement that a contrast does indeed arise between the two examples in each pair.

⁵³From Abney's examples (179a-f).

passivisation and subject-licensing facts in gerunds: as already indicated in Chapter 2, Abney takes the view that all IPs, by default, have a verbal AGR in I which Case-marks [Spec,IP]; infinitival clauses are understood to be the marked case where the presence of *to* under Infl means that default case is not available. Both the availability of clefting and the lack of movement to matrix subject position under passivisation are therefore correctly predicted, following from this assumption that Case comes from the embedded Infl (rather than from matrix V): the former, because the gerund subject does not have to be adjacent to matrix V; the latter because moving the subject to matrix [Spec, IP] yields a violation of the Case-filter.

Accounting for the distribution of lexical NP and PRO in these gerunds is less straightforward (recall that Abney assumes *PRO-ing* has the same underlying structure as *NP+V-ing* (p.188)). This is because IPs typically allow either one or the other depending on whether Infl is +finite or -finite, but here we have a non-finite IP in both cases and yet either a lexical NP or PRO subject is possible, at least with matrix verbs like *remember*. Although the issue is not addressed directly, one is left to assume that default case assignment to the subject position (i.e. [Spec, IP]) does not involve government and so PRO can appear here. However, if this is correct, then it is to be expected that all verbs which select gerund complements should have this option. Since verbs like *intend*, *recommend*, *anticipate*, *advocate*, *propose* and *consider* allow PRO only, this is clearly not the case.

In addition to the fact that there is no principled way of explaining the distribution of lexical NP and PRO in the full range of gerund contexts there is also a very fundamental difficulty with the claim that *NP+V-ing* and *PRO-ing* are DPs at their outermost level (like *Poss-ing* and *ing-of* gerunds). The problem lies with the claim that they are DPs without actually projecting a D. This is an aberration from X-bar theory which is surely undesirable from a theoretical perspective. Moreover, the evidence relating to Case-specification and specificity effects,⁵⁴ cited by Abney in support of the claim that they do

⁵⁴See Chapter 2, footnote 23.

not have a D, could in fact, be taken to indicate that they are not therefore DPs like the others.⁵⁵

To sum up the evidence against Abney's account of *NP+V-ing* and *PRO-ing* gerunds: firstly, the distribution of lexical NP and PRO subjects remains a mystery: if either is possible, in principle, then there is no explanation for the variability associated with individual matrix predicates; secondly, the claim that these gerunds are DPs without a D is theoretically unsound, and thirdly, the assumption of an underlying IP below the DP layer, the head of which Case-licenses the subject by default, has already been shown in Chapter 2 not to work for *NP+V-ing* clauses in adjunct position.

3.2.3 *NP+V-ing* as IP and *PRO-ing* as a nominal (Milsark 1988)

In Chapter 2 we considered how Milsark's analysis of gerunds might be applied to Absolutes, concluding that it could not explain the occurrence of lexical subjects in that construction. Here we focus on his account of gerunds in complement position and the extent to which it can accommodate the facts relating to subject Case-licensing, clefting and passivisation in gerunds.

As will become clear below, Milsark's theory is developed more with *poss-ing* gerund complements in mind than *NP+V-ing* (i.e. those with a genitive rather than an accusative subject) and with explaining how these (i.e. *poss-ing gerunds*) alternate with *PRO-ing* in examples like the following:

⁵⁵The two major advantages of the DP analysis are perhaps worth noting here: one, the noun-like distribution of *NP/PRO-ing*, illustrated in (32)-(37) above; the other, the fact that it makes a neat paradigm available for describing the grammatical properties of the morpheme *ing* i.e. as a nominaliser converting a verbal category into a nominal by adjoining at three different points in the derivation, yielding three distinct types of gerund. However, it must be remembered that although *NP/PRO-ing* has, like the other gerunds (*Poss-ing* and *ing-of*) the general distribution of a nominal, unlike them it can also occur in positions where Case is not available (e.g. adjoined to CP in Absolutes), a fact which argues strongly against a uniform DP analysis, particularly in view of other advantages to be had from treating these gerunds as AspP.

- (38) a. John enjoyed PRO playing the Browning
 b. John enjoyed Bill's playing the Browning

However, his theory is intended, in principle, to embrace *NP+V-ing* complements also and the references to these are explicit, although limited in terms of detailed discussion. We begin with a brief reminder of the basic mechanism invoked by Milsark to account for the mix of nominal and sentential properties associated with gerunds.

The assumption is that all gerunds start out either as a bare non-finite IP or a non-finite IP dominated by CP, the former corresponding to contexts where the subject is lexical NP, the latter to contexts where it is PRO. A key feature of the analysis is that in the PF component V affixes to the category-neutral morpheme *ing* (located under Infl), triggering recategorisation of the gerund to whatever category is required by the syntax. This means effectively that if the gerund phrase is in a Case-position then recategorisation converts [+V,-N] to [+N,-V]; if it is not in a Case-position, then recategorisation is vacuous and the gerund remains a verbal category. Thus, gerunds are understood to derive their sentential properties from a deep and surface IP/CP structure and nominal properties, where they occur, from a nominal PF structure.

One of the sentential properties we are specifically concerned with is the potential to take a PRO subject.⁵⁶ On Milsark's theory a PRO in the subject position of a complement gerund is typically in the specifier of a nominal projection which has been recategorised from CP at PF because the matrix verb has Case to assign to its complement.⁵⁷ Notice that the PRO Theorem is not violated at any point of the derivation: at DS and SS PRO is in the

⁵⁶In the general case, the potential to take a PRO subject is not associated with NPs (see Chomsky 1981:165), although some nominals may have PRO subjects e.g. those with an agentive reading like *picture*, *story* and *destruction*.

- (i) *John saw PRO book
 ii) The children drew [PRO pictures of each other]
 iii) The PRO destruction of the city [PRO to prove a point]

⁵⁷The gerund complement of VTAs (verbs of temporal aspect) like *quit*, *begin*, *keep*, *start* constitute an exception to this; Milsark proposes that these verbs do not assign Case to a gerund complement and therefore recategorisation to nominal does not occur at PF. This explains why PRO does not alternate with a genitive lexical subject in these gerunds.

specifier of a non-finite IP dominated by CP,⁵⁸ and at PF, although it is governed by N, no violation occurs because the binding theory does not apply at this point of the derivation.⁵⁹ Since the *PRO-ing* gerund is a nominal at PF the PRO subject can be replaced by a lexical NP in genitive Case, yielding a *poss-ing* gerund as in (38)b above.

Milsark acknowledges (p.629,ftn 14) that the above account of the lexical NP/PRO alternation only works if the lexical NP receives genitive Case. To account for an accusative Case subject as in the *NP+V-ing* gerunds we are concerned with, more needs to be said. The relevant contexts are illustrated again here:

- (39) a. John remembered/recalled/regretted Mary/PRO leaving
 b. John preferred/liked/hated Mary/PRO living next door

It is suggested rather tentatively that, for some unknown reason, gerunds with lexical NP subjects are no longer a barrier to government from outside (i.e. as noted above, they are not CPs); the matrix predicate, therefore, Case-licenses the subject in [Spec,IP] via ECM (his footnote14), and recategorisation is vacuous i.e. IP remains IP.

This view of the *NP+V-ing/PRO-ing* alternation is not particularly convincing since it must be assumed that verbs like *remember*, for no obvious reason other than lexical idiosyncrasy, can select a Gerund Clause complement either with or without a CP layer (the latter yielding *PRO-ing* rather than *NP+V-ing*), that verbs like *intend*, *recommend*, *advocate*, *propose* and *consider* (which take *PRO-ing* obligatorily) select a CP gerund only, and that perception verbs obligatorily select IP. Moreover, since a lexical NP subject

⁵⁸Milsark admits that the issue of whether or not there is a CP layer in gerunds generally is not clear cut; he notes there is some evidence to the contrary i.e. the trace in the following is in subject position of a gerund and yet seems to be properly governed (his (23a&b), adapted):

- (i) It began (continued,kept, ceased etc.) t snowing
 (ii)It began (continued,kept, ceased etc.) t to snow

Moreover, as we will be pointed out below, in order to account for accusative Case subjects in a gerund Milsark must allow for the barrier not to occur, so that the matrix verb can Case-license the subject via ECM.

⁵⁹Recall from 2.2.3 that in Milsark's theory PRO receives Case but is not governed.

is understood to be Case-licensed via ECM, it also fails to predict the ungrammaticality of subject movement to matrix [Spec, IP] under passivisation and the grammaticality of clefts.⁶⁰ Finally there is the evidence in 3.2. that gerunds are never CPs.

To sum up, although the analysis of *poss-ing* gerunds found in Milsark (1988) can account for the main set of data he is concerned with (i.e. the *poss-ing PRO-ing* alternation) and from a theoretical perspective is not necessarily implausible (recategorisation of the gerund to nominal at PF), nevertheless, the attempt to integrate *NP+V-ing* gerunds into the theory reduces the three-way paradigm of the distribution of lexical NP and PRO subjects to lexical idiosyncrasy and fails on the passivisation and clefting data. Moreover, we have already shown in Chapter 2 that it also fails to account for Absolutes.

Finally we come to a review of the claim in Johnson (1988) that *PRO-ing* and *NP+V-ing* are CP and IP respectively.

3.2.4 *NP+V-ing* as IP and *PRO-ing* as CP (Johnson 1988)

Johnson (1988) treats *NP+V-ing* as IP and *PRO-ing* as CP, the subject of the former being Case-licensed by an outside governor. In claiming that Gerund Clauses are IP/CPs, Johnson draws on an analogy with gerund complements of prepositions,⁶¹ of the kind illustrated below, where in his view there is strong evidence that the gerund has a CP layer:⁶²

- (40) a. Liz left before [[PRO telling a story]]
b. Sam left despite [[PRO saying he wouldn't]]
c. Sam left despite [John saying that he wouldn't]

⁶⁰Since Case from matrix V is absorbed under passivisation, the subject should be able to move to matrix [Spec, IP], as with a typical ECM verb. On the other hand clefting should be ungrammatical because ECM requires adjacency (see footnote 26).

⁶¹Or 'subordinating conjunctions'.

⁶²Johnson's (16a), (17b) and (23a), respectively, adapted.

It is proposed that in examples like (40)a a temporal operator standing for a phonologically null *when* moves to Comp from where it binds a trace in the VP of the gerund, giving the surface structure representation in (41) below (this is a development of the analysis of temporal prepositions before finite clauses found in Larson 1987):

(41) Liz left before/while [Op_i [PRO telling a story t_i]]

The CP analysis is then extended to gerunds in examples like (40)b&c to explain the fact that the subject here can be either PRO or lexical NP.

The main evidence provided in support of an operator in comp for (40)a comes from the fact that if a third clause is embedded under the Gerund Clause, as in the following, two readings become available:

(42) Liz left after saying she would

(42) can mean approximately either 'Liz said she would leave and having said this she then left' or 'Liz left at a later time than she said she would leave at', the corresponding position of the proposed variable in each case being as follows:

(43) a. Liz left after [OP_i [saying [she would] t_i]]
b. Liz left after [OP_i [saying [she would t_i]]]

In view of ambiguities of this kind Johnson is led to the conclusion that with temporal prepositions the gerund must always be a CP, to accommodate the operator, while with other prepositions like *despite* (see (40b)) either a CP (without an operator) or an IP is possible, depending on whether the subject of the gerund is PRO or a lexical NP.

The present concern is not with the merits and demerits of Johnson's account of the above gerunds, since they are not complements to V. What is of relevance, however, is the assumption that the structures proposed for adjunct gerunds i.e. CP/IP, can be extended to

contexts where the gerund is complement of a verb. There are at least three good reasons, which we turn to now, for rejecting this view.

The first is that the above argument for a CP layer in gerund adjuncts is simply not available when the gerund is complement to V i.e. there are no gerunds in this position of which it might reasonably be said that they contain a moved operator in comp. All that can be concluded from (43) therefore is that there is evidence to suggest that gerund complements of a temporal preposition (i.e. those in adjunct position) might be CPs and that, by analogy, gerund complements of other prepositions might also be CPs, given that they too are adjuncts of a similar kind (i.e. gerund complements of a preposition); the fact that the latter can take either a lexical NP or a PRO subject might be said to lend further support to such an analogy. Our point, however, is that the absence of similar evidence for a CP/IP account of gerund complements to V argues against any direct analogy with adjunct gerunds, in this respect, particularly in view of the evidence in subsection 1.1 above that gerund complements to V are never CPs.

A second objection is that an ECM account of subject Case-licensing in IP gerund complements to V is not viable, as already argued in the previous subsection: it is at variance with the fact that these gerunds fail to allow subject movement to matrix [Spec, IP] under passivisation,⁶³ and that clefting of the gerund is grammatical (given that ECM requires strict adjacency).

⁶³Johnson rejects the explanation in Reuland (1983) for the ungrammaticality of passives in contexts with a matrix verb like *remember*, but offers no solution of his own. The following examples are cited to make the point that it is not due to an ECP violation, as argued by Reuland:

- (i) *Betsy was made [t eat the squid]
- (ii) *Mittie was let[t light the stove]
- iii) *Liz was seen [t hammer the board]

Johnson argues that the bracketted phrases in (i) - (iii) are not CPs (note that a PRO subject is not possible) and that the subject must be Case-licensed via ECM, there being no other obvious Case-licenser available (e.g. arguably no embedded Infl). If this is correct passivisation cannot be ruled out here in terms of lack of (proper) government for the trace. This leads to his speculation that whatever can account for (i) -(iii) should also be able to do so for the gerund cases.

The third concerns the account given of the fact that some verbs allow lexical subjects only and others either lexical NP or PRO, this being effectively reduced to lexical idiosyncrasy (as in Milsark 1988) e.g. Johnson proposes that perception verbs select IP only and *remember* selects either CP or IP.⁶⁴ It follows that verbs like *intend*, *anticipate*, *advocate*, *recommend*, *propose* and *consider* would have to select CP only. What this amounts to, in fact, is a description of the distribution of lexical and PRO subjects in gerund complements, not a genuine explanation.

Leaving aside for the present the three main objections identified above, it is also the case that if Johnson is correct in treating Gerund Clauses as CP/IPs then Stowell (1982)b must be incorrect not only in arguing that gerunds are never CPs but, crucially, also in his analysis of the temporal interpretation of gerunds (see subsection 1.2.1 above); consider now why Stowell's account of the temporal interpretation of gerunds is incompatible with Johnson's claims.

Recall Stowell's theory that CPs differ from both non-finite IPs and gerunds in terms of the way tense is interpreted,⁶⁵ the former being more independent than the latter in this respect because the tense operator can move to Comp; with non-finite IPs and gerunds this movement to comp is not available and so tense is interpreted largely on the basis of the semantic properties of the matrix predicate.

Now, Johnson argues that the gerund complement of a verb like *remember* is either a CP or an IP; this leads to the expectation that there should be a difference in terms of temporal

⁶⁴Like the preposition *despite*. *By* on the other hand selects a CP gerund only:

- (i) *John pestered Mary by [him telling that story]
- (ii) John pestered Mary by [[PRO telling the story]]

Johnson suggests the explanation that *by* does not have Case to assign, which is odd, given that PPs headed by *by* are perfectly common generally.

⁶⁵Recall also that for Stowell non-finite IPs include both infinitivals and gerunds. We hold with his claim that CPs differ from infinitival IPs in terms of the interpretation of tense, and that gerunds also differ in this respect from CPs but we do *not* agree that gerunds are IPs.

interpretation between the two complement types:

- (44) a. John remembered [Mary leaving]
b. John remembered [[PRO leaving]]

However, (44)a& b are identical in this respect i.e. both gerunds are understood to be past tense in relation to the matrix verb, their interpretation being largely dependent on the semantics of *remember*. Thus, for Stowell to be right, as we believe he is, in his observations about the interpretation of tense in IPs and gerunds, then Johnson must be wrong.

To sum up on Johnson (1988), the evidence that some gerund complements to V are CPs is not convincing i.e. the analogy drawn between gerund complements to temporal prepositions and gerund complements to V is not sustainable, particularly in view of the arguments in Stowell (1982) that there is no CP layer in these gerunds. The passivisation facts also remain unexplained (except with a matrix perception verb), as does the grammaticality of clefts, given Johnson's assumption that Case-licensing is via ECM when the gerund is an IP. Finally, the distribution of lexical NP and PRO subjects in the gerund does not receive a principled account.

In concluding this section as a whole the most important point to be made with regard to the categorial analyses of gerund complements to V reviewed above is that none makes available a satisfactory account of the distribution of lexical NP and PRO subjects, particularly over the full range of gerund contexts: in Reuland (1983) and Johnson (1988), only, is any real attempt made to account for the optionality of lexical NP and PRO subjects found in gerund complements of verbs like *remember*, the former proposing affix-hopping at different points in the derivation, and the latter a CP/IP alternation determined by the selection properties of the matrix verb. In both theories, the full details of the distributional paradigm must ultimately be reduced to lexical idiosyncrasy.

In Abney (1987), and Milsark (1988) the *NP+V-ing/PRO-ing* alternation is not the primary concern: Abney focusses on the broader picture, proposing a paradigm designed to capture the fundamental syntactic differences between the three main types of gerund while at the same time representing their common properties (by analysing all as DPs externally). However, as demonstrated above, on his approach also, there would seem to be no possible principled explanation for the link between the matrix verb and the precise distribution of subject type. Finally, Milsark's theory, designed mainly to account for *poss-ing* and *PRO-ing* gerunds, works reasonably well for them, but when applied to *NP+V-ing* is not satisfactory.

With regard to the potential of the literature reviewed above to account for the passivisation and clefting facts, Reuland (1983) and Abney (1987) are the most successful (Milsark 1988 and Johnson 1988 fail to explain either). However, their inability to deal in a principled way with the issue of subject Case-licensing in a range of gerund contexts, together with other objections raised in the reviews above, makes neither a desirable option. In the next section, therefore, we propose an alternative analysis in which the category of gerund complements to V generally is not CP, CP/IP, or DP, contra the above, but AspP.

3.3 Gerund Clauses as AspP: interpreting tense without T

The starting point of the discussion below is our contention that much of the difficulty in accounting for the distribution of lexical NP and PRO subjects in gerund complements to V arises from the assumption that, because they are non-finite, they share the same category as infinitival clauses (i.e. CP/IP), at least at some point in their derivation. This in turn leads to the expectation that subject Case-licensing in both should be accounted for along similar lines. This is quite evidently at variance with the facts: firstly, an ECM account of subject Case-licensing is incompatible with the passivisation and clefting data; and secondly, an account of the distribution of lexical NP and PRO subjects relying on the

notion of an optional CP layer⁶⁶ (or minimalist equivalent) is unsatisfactory, not only because of its heavy reliance on lexical idiosyncrasy to account for the full paradigm but also because of the evidence cited above against the presence of a CP layer in gerunds.

If gerund complements to V are categorially distinct from non-finite clauses generally, then the way is at least cleared for a resolution of the above problems. This is because subject Case-licensing mechanisms, as far as one can tell, do vary depending on syntactic category. Clausal DPs like *poss-ing*, in which the subject (in genitive Case) must be in a spec-head configuration with D, is an obvious case in point.

In proposing that Gerund Clauses are AspPs we take into account the fact that the *-ing* on the verb is a suffix which clearly has aspectual meaning in other syntactic contexts (e.g. 'John is/was writing a letter', denoting an imperfective/a-telic event, contrasts with 'John wrote a letter' which is perfective/telic); although not all instances of *-ing* suffixation to V are aspectual in character (e.g. the *ing* in *poss-ing* and *-ing of* seems to be most appropriately analysed as a nominaliser),⁶⁷ the *ing* in gerund complements to V appears to be quite distinctively so.

Moreover, if, as argued in Chapter 2, *NP+V-ing* in adjunct position (Absolutes) are indeed AspPs (with specific properties of the proposed Asp head being a crucial factor in Case-licensing the subject) then the obvious conclusion to draw is that *NP+V-ing* in complement position to V is also AspP. The precise conditions governing subject Case-licensing in gerunds are therefore not expected to be the same as those obtaining either in +/-finite TPs or clausal DPs.

As will become clear in the course of what follows in this section and the next, the issue

⁶⁶'Optional' in the sense that it is deletable with some verbs and not with others e.g. *believe* and *try* respectively and with others again it is optionally deletable e.g. *expect*.

⁶⁷See 3.2.2 above for Abney's account of *ing* in these gerunds as a nominaliser.

of the temporal interpretation of the gerund is inseparable, on our account, from the issue of subject Case-licensing and the distribution of lexical NP and PRO subjects. This being so, the main purpose of the present section will be to take the preliminary step of explaining how the temporal interpretation of the gerund is arrived at in the proposed absence of an independent T node. We begin by refining and developing the theory of the temporal interpretation of gerunds proposed in Stowell (1982)b (3.1). The revised theory is then adopted as a foundation for a syntactic account of the relationship between the tense of the matrix verb and its gerund complement (3.2).

3.3.1 The role of matrix V in determining the tense of infinitivals and gerunds: refining Stowell's theory

Recall from above Stowell's claim that an ECM infinitival or a gerund complement to V has its temporal interpretation largely determined by the semantics of matrix V. While this statement, as already demonstrated, seems to be true, the precise nature of the temporal dependency proposed by Stowell between a matrix verb and its infinitival or gerund complement is vague, and needs to be characterised in more explicit terms.

The key examples are repeated here, each followed by a finite paraphrase, illustrating, first with infinitivals ((45)-(47)), then gerunds ((48)-(50)), how the matrix verb largely predicts the past, present and (possible) future tense interpretations, respectively, of the complement:

- (45) a. I remember [John to be the smartest]
b. I remember that John was the smartest
- (46) a. Bill considers [himself to be the smartest]
b. Bill considers that he is the smartest
- (47) a. I expect [John to win the race]
b. I expect John will win the race
- (48) a. Jenny remembered [PRO bringing wine]

- b. Jenny remembered that she brought the wine
- (49)
- a. John prefers [PRO living next-door]
 - b. John prefers it that he lives next door
- (50)
- a. John recommends [PRO leaving early]
 - b. John recommends that they should leave early

The correlation between the meaning of the matrix verb and the tense it predicts for the complement is self-evident in the cases of (45)a and (47)a for infinitivals, and for the corresponding examples with gerunds in (48)a and (50)a: when the matrix verb is *remember* past tense is predicted because verbs like *remember* are semantically associated with past time; when the matrix verb is *expect* or *recommend* (possible) future is predicted for the complement because of the semantic association these verbs have with future time.

Accounting for the present in (46)a and (49)a however is more difficult, since there is no specific semantic association between verbs like *consider* and *prefer* and present tense. It is in this respect that Stowell's description of the facts remains vague.

Notice that in fact the two verbs do not necessarily predict a present tense complement: if the matrix is changed to PAST then the infinitival and gerund complements are also interpreted as past, as illustrated in the following pairs (the second example in each contains a tensed paraphrase of the complement in the first):

- (51)
- a. John considered [himself to be the smartest]
 - b. John considered that he was the smartest
- (52)
- a. John preferred [PRO living next-door]
 - b. John preferred it when he lived next door

Although it is indeed possible to construct examples in which the gerund complement of *prefer* in the PAST tense can be interpreted as future with respect to the matrix verb, this, as will be demonstrated below, does not undermine the general conclusion drawn here about the temporal properties of this verb. Take, for example, a sentence like (53):

(53) I gave him a choice but John preferred [PRO sitting next to me]

When the *prefer* clause is conjoined with ‘I gave him a choice’ a future interpretation of the gerund becomes possible. The word *choice* seems crucial here. It gives the following reading of the *prefer* clause:

(54) John preferred *the option of* sitting next to me

(54), in turn, can be paraphrased as follows:

(55) John chose sitting next to me

Notice that *choose* is a ‘future-oriented’ verb i.e a gerund complement of *choose* refers to future time with respect to the matrix verb. Consistent with the theory proposed here, a gerund complement of the ‘future-oriented’ verb *choose* takes a PRO subject only:

- (56) a. John chose Mary*/PRO living next door
b. *John chose Mary sitting next to me/him

In explaining the temporal interpretation of the gerund in (53) above, therefore, what must be taken into account is that the matrix verb *prefer*, in this particular context, acquires the semantic properties of *choose*, which is future-oriented. The fact remains that the event in the gerund of (52) when considered as it stands (i.e in the absence of a phrase which causes a future interpretation of the gerund to be selected - or a specific pragmatic context producing the same effect) is interpreted as contemporaneous with the matrix event i.e the matrix PAST takes a gerund complement which is also interpreted as past.

Notice now that a PAST tense matrix in (47)a and (50)a (in which matrix V is oriented towards the future) does not alter the (possible) future tense originally predicted:

- (57) a. I expected [John to win the race]
b. I expected that John would win the race

(58) a. John recommended [PRO leaving]

- b. John recommended that they should leave

When *consider* and *prefer* are changed to FUTURE the infinitival and gerund complements, respectively, are again interpreted as contemporaneous with it, although the point is made more effectively when the matrix verb is *prefer* rather than *consider*:

- (59) a. John will consider [himself to be the smartest]
b. John will consider he is the smartest
c. In John's estimation he will be the smartest
- (60) a. John will prefer [PRO living next-door]
b. John will prefer it when he is/will be living next door

Notice that although the FUTURE tense matrix verb in (59)a takes a complement which is best paraphrased by a finite clause in PRESENT tense (as in the (b) example), nevertheless, the matrix and complement events are clearly interpreted as contemporaneous, as demonstrated in the second paraphrase (example (c)) with a future tense finite clause in place of the infinitival.

The most appropriate generalisation to propose, therefore, with regard to the nature of the temporal relationship between a matrix verb like *consider* or *prefer* and its infinitival or gerund complement respectively is that the two clauses must be contemporaneous i.e. the tense of the matrix will be the same as the tense of the complement.⁶⁸

⁶⁸When an aspectual auxiliary is added either to the infinitival or the gerund complement it looks at first as if the obligatory contemporaneity may be over-ruled (in each example (b) is a tensed paraphrase of (a)):

- (i) a. John considers/believes himself to have been the smartest
b. John considers/believes that he was the smartest
- (ii) a. John prefers/appreciates having been a student at MIT
b. John prefers/appreciates it that he was a student at MIT

However, while the addition of the perfect auxiliary clearly does create a difference in terms of the temporal relationship just proposed between the two clauses, it is possible to paraphrase the complement clauses in (i)a and (ii)a respectively using a present perfect tense, as in the following:

- (iii) John considers/believes he has been the smartest
(iv) John prefers/appreciates it that he has been a student at MIT

Both matrix and complement clause are in this sense, therefore, still contemporaneous. Notice also that the addition of an auxiliary verb does not *necessarily* alter the relationship of contemporaneity, as is clear from

It would be convenient if one could say, at this point, that all the verbs which have the type of temporal relationship with their infinitival and gerund complements indicated above (i.e. contemporaneity) share some specific semantic property which would complete the paradigm provided by *remember* and *expect* (yielding past and (possible future) respectively): 'stativity' would be a likely candidate, given that the stative verbs *know*, *believe*, and *think* (in the case of infinitivals) and *like*, *adore*, and *hate* (in the case of gerunds) display the same temporal relationship with their complements as *consider* and *prefer*. However, there are other semantic categories of ECM verbs which also select non-finite IPs interpreted as contemporaneous with the matrix e.g. 'achievement' verbs like *find* and *discover* and 'accomplishment' verbs like *declare*, and *report*, as illustrated in (61) and (62) below.⁶⁹

- (61) a. They find/discover/declare/report [the children to be well cared for]
 b. They find/discover/declare/report [that the children are well cared for]
- (62) a. They found/discovered/declared/reported [the children to be well cared for]
 b. They found/discovered/declared/reported [that the children were well cared for]

In these examples, as in (51)a and (52)a, changing the matrix tense from present to past brings about a corresponding change in the temporal interpretation of the infinitival

(v) below:

(v) The professor believes his students to *be studying* in the library

Some version of a double-ing filter (Ross 1972) rules out the corresponding example with a gerund:

(vi)*The professor prefers/appreciates his students *being studying* in the library.

A perfect auxiliary can also be applied to the gerund complement of verbs like *remember* and *anticipate*:

- (vii) a. John remembers Mary having left early
 b. John anticipates PRO having left by then

Contemporaneity is not predicted here since the matrix verbs are semantically oriented towards past and future time respectively.

⁶⁹ Adopting the fourfold distinction of verb types proposed in Vendler (1967) i.e. activities, accomplishments, achievements and states.

complement. Moreover, gerunds interpreted as contemporaneous with the matrix can also be selected by (arguably) non-stative verbs e.g. *enjoy* and *relish*.⁷⁰

- (63) a. John doesn't enjoy/relish [PRO watching films all day]
b. John doesn't enjoy/relish it when he watches films all day
c. John didn't enjoy/relish [PRO watching films all day]
d. John didn't enjoy/relish it when he watched films all day

Verbs which select infinitival and gerund complements interpreted as contemporaneous with the matrix, therefore, neither share a specific semantic property of a temporal kind (cf. verbs like *remember* and *expect*) nor belong to the same aspectual category.

This being the case, our conclusion is that the most accurate description of the facts concerning the relationship between a matrix verb and the temporal interpretation of its gerund (or infinitival) complement is as follows: the complement bears the tense of the matrix verb by default; however, in the marked case a verb semantically associated with past (but not necessarily itself in PAST tense) will force a past tense interpretation of the complement (with respect to the matrix); similarly, a verb semantically associated with future (but again not necessarily in FUTURE tense form itself) will force a (possible) future tense interpretation of the complement. In the next subsection we consider how this temporal relationship might be expressed in syntactic terms.

3.3.2 Accounting for the temporal relationship between matrix V and its Gerund Clause complement in the syntax

Little attempt has been made in the literature thus far to provide a syntactic account of the temporal relationship between a matrix verb and its clausal complement in English. Although Stowell (1995) has indeed analysed in syntactic terms the representation and

⁷⁰Note that unlike 'statives' these can have progressive forms. They can also occur in imperatives (e.g. *enjoy yourselves*) and the subject can be interpreted as an agent (e.g. *the hermit refuses to enjoy/relish his food*).

interpretation of tense in finite clause complements of V (and in matrix clauses), he does not discuss the difficult case of Gerund Clause complements in this paper. Before introducing our own proposal, therefore, we summarise briefly the main features of Stowell's theory and show that if applied to gerunds it fails to account for the facts.

3.3.2.1 Applying Stowell (1995) to the interpretation of tense in Gerund Clauses

Tense is analysed by Stowell as a theta-assigning syntactic head (TENSE)⁷¹ with two arguments, namely, PRO in its specifier and a ZP (ZEIT-PHRASE) complement.⁷² The external argument, PRO, is the temporal analogue of traditional PRO and denotes the Reference Time;⁷³ the internal argument ZP denotes the Event Time - an operator in its specifier binds a temporal variable in VP.

The proposed semantic content of TENSE is explained as follows: when it is PAST it is equal to that of the preposition *after*. PAST, like *after* in the sentence '*The party is after the class,*' establishes a temporal ordering relation between the external and internal arguments in which the former is understood to follow the latter. When TENSE is occupied by *will* (i.e. future) its inherent semantic content is equal to that of *before* so that this order is reversed i.e. the external argument is now the prior one; when TENSE is PRESENT the two are interpreted as overlapping. Consider now how in an example with

⁷¹Stowell uses the uppercase terms TENSE, PAST, and PRESENT to refer to Pollock's X-bar Phrase structure heads. Regular lower case orthography is used when referring to tense and times in an informal way. Lower case orthography in italics is used when referring to the morphological tense affixes *past* and *present*. In reviewing Stowell's paper we will employ Stowell's distinctions in the orthography. Our own practice, which will be resumed subsequently, is to use the uppercase terms to refer both to (morphologically) tensed verbs and the corresponding Tense head in the syntax, only, and lower case orthography for all other references to tense.

⁷²TP is understood to contain both a thematic subject position for its *temporal* external argument, PRO, and a non-thematic Spec position for the traditional subject DP. ZP is an additional functional projection intervening between TP and VP. It bears a structural relationship to VP which is analogous to the relation that DP bears to NP.

⁷³Stowell's use of the term 'Reference Time' differs from the traditional sense of the term originating with Reichenbach (1947). It has no fixed indexical notation - it simply refers to a time relative to which the Event Time ZP is ordered. Its denotation, as will be demonstrated below, is fixed by Control Theory. A second contrast with Reichenbach's system is that Speech Time is one of the possible denotations of the Reference time, rather than having independent status alongside Reference Time and Event Time.

a simple tense like (64), below, the relationship between Reference Time, Speech Time and Event Time can be explained on this theory:

- (64) a. John hit the ball
 b. [TP PRO [T [T (PAST) [ZP OP_i [Z' [Z [VP ZP_i [VP John hit ball]]]]]]]]]]

Here the Reference Time argument, PRO, is understood to be controlled by the Speech Time so that the sentence receives the following translation : ‘The Speech Time is after a time ZP_i at which John hit the ball’.

Consider next how Stowell deals with the temporal relationship between the two clauses of a bi-clausal structure. In fact two kinds of bi-clausal structure are discussed, only the second of which proves useful in our attempt to extend his system to Gerund Clause complements: the first is the typical case of a matrix verb taking a finite clause complement; the second is the less straightforward case of examples like (65) below in the (past) perfect tense:

- (65) John had telephoned

It should first be pointed out that (65) is bi-clausal in the sense that both a ‘having’ event and a ‘telephoning’ event are referred to. The appropriateness of drawing an analogy between examples of this kind and sentences with a Gerund Clause complement to V will become clear shortly below.

Stowell proposes that with the present perfect and past perfect tenses there are two elementary tense predicates, one instantiated as the morphological *past/present* on the auxiliary, the other as the past participle *-en* on the lexical verb. The higher tense predicate (associated with the auxiliary) takes as its arguments a PRO, controlled by the Speech Time, and a ZP complement with an operator in its specifier which binds a variable in the VP headed by *have*. *Have*, in turn, selects the lower tense predicate which is a Participle Phrase (PrtP) headed by *-en*. The two arguments of *-en* are a PRO (in

It could of course be argued that *ing*, unlike *-en*, is actually under Z, in this case, and that the TENSE predicate PrtP is simply phonetically null. This would allow for TENSE to be PAST in spite of there being a *present* (i.e. *ing*) in ZP.⁷⁶ (68) would therefore correctly receive the following translation: ‘The Speech Time is the same as a ‘remembering’ time ZP_i which is after a time ZP_j at which Mary leave’. However, Stowell also proposes that *present* is an ‘anti-Past Polarity’ item (anti-PPI) and therefore must not be in the scope of TENSE (PAST).⁷⁷ This rules out the solution just suggested, since the *present* in ZP would be in the scope of the embedded (PAST) TENSE.

Our conclusion is therefore that Stowell’s syntactic account of the temporal relationship between the two clauses of a bi-clausal structure cannot be applied successfully to the case of gerund complements to V. Although it could be said to cover what has been identified above as the ‘default’ case, it fails to account for all the other examples where the matrix verb is semantically oriented towards past or future, triggering a corresponding interpretation of the complement. Since this is a particularly striking property of Gerund Clauses it cannot simply be overlooked. Moreover, Stowell’s theory when applied, as above, to gerunds crucially only manages to embrace the default case on the assumption that Gerund Clauses are actually TPs.⁷⁸ As has already been argued in subsection 3.2 above, the evidence against analysing them as such is very strong. Below we propose an alternative account.

⁷⁶Stowell uses a similar argument to explain why the finite clause complement of V in (i) below can be interpreted as present in spite of being morphologically *past* tense:

(i) John said that Bill was sick

(i) has a ‘non-shifted’ reading in which Bill was sick at the same time that John was saying he was sick. Stowell proposes that the *past* of the complement clause is located in ZP but that TENSE is actually PRESENT.

⁷⁷Stowell argues that in English *past* and *present* are located in ZP which, as noted in footnote 73 above, is the equivalent to the DP layer of an NP. ZP is treated, like DP, as a referential category. A comparison is then drawn between the quantifiers *some* and *any*, which are assumed to be under D, and *past* and *present* tense. Just as *some* must appear outside the scope of negation, *present* must appear outside the scope of PAST(TENSE) i.e. it is an Anti-PP item. Just as *any* must be in the scope of negation, *past* must be in the scope of PAST(TENSE).

⁷⁸It is of course possible, in principle at least, to treat the Gerund Clause as a finite TP *without* adopting a system like Stowell’s i.e. *ing* could be analysed as Asp and AspP would intervene between a finite TP and VP. This is not a plausible option, however, because, apart from the obvious fact that there is no morphological evidence of finite T in a gerund, a Gerund Clause, unlike finite TP, is always subordinate i.e. it cannot stand on its own. Moreover, a lexical subject in English finite clauses is always in complementary distribution with PRO, unlike in Gerund Clauses where, in the general case, either is possible.

3.3.2.2 Asp as a head with a Tense feature

Two main conclusions reached in the discussion thus far provide the basis for the syntactic account of the interpretation of tense in Gerund Clauses proposed below: firstly, the Gerund Clause is categorially neither a non-finite nor a finite TP, secondly, lexical properties of the matrix verb are a key factor in determining the interpretation of tense in a Gerund Clause i.e. provided that matrix V is not semantically oriented towards either past or future time then the tense of the Gerund Clause will be the same as the tense of the matrix clause.

This second point suggests strongly that the most likely source of the variability in temporal interpretation lies with selection properties of matrix V. In fact, a very simple way of capturing, in terms of selection properties, the proposed temporal relationship between matrix V and the gerund would be available if Gerund Clauses, contra all the evidence, were actually TPs: it could be assumed that matrix V selects a TP with the head specified as PAST/PAST/(possible) FUTURE depending on lexical properties of matrix V. The alternative we propose is that the syntactic expression of the specification of tense in the gerund (our AspP) is in the form of a grammatical feature on Asp. That is to say, matrix V selects an AspP complement with a 'tense feature' on the head whose value as past/present/(possible) future is determined by the lexical properties of the selecting verb. It is checked when *V+ing* moves to Asp at LF.

This is an approach in which the syntactic representation of tense in the grammar as a whole (e.g. as a +finiteT head, or a -finite T head etc.) is conceived of in hierarchical terms, based on the extent to which the value of tense in a given clause is determined independently of elements external to that clause. To illustrate the point, a finite T, which can clearly occur freely as PAST, PRESENT or FUTURE, is the most independent in the relevant sense. It therefore occurs in the topmost position of the hierarchy. A non-finite T of the kind found in infinitival clauses with a CP layer comes next (e.g. the T of a control

complement). This is because, as Stowell (1982)b has already convincingly argued,⁷⁹ these can only be interpreted as ‘unrealized with respect to the matrix’ in spite of the fact that, like finite clauses, they contain an independent Tense projection (dominated by CP). Being uniformly interpreted as ‘unrealized with respect to the matrix’ (i.e. regardless of the individual lexical properties of matrix V), therefore, they are more restricted than finite clauses in terms of their temporal interpretation.

ECM infinitivals follow next, in the second lowest position in the hierarchy, because although these also contain a Tense projection (realised as the infinitival marker *to*), lexical properties of the matrix verb have a bearing on whether the infinitival clause is interpreted as past, present or (possible) future. Finally, in the lowest position, there is the tense feature on Asp proposed here. It occurs in the absence of TP and its value is determined by lexical properties of the selecting verb.

Before demonstrating in the next section the full advantage of this proposal in accounting for the distribution of lexical NP and PRO subjects in Gerund Clauses we must first sum up the conclusions of this section: the rather vague claim in Stowell (1982)b that lexical properties of matrix V determine the temporal interpretation of the gerund has been developed into a more articulated description of the temporal relationship between the two clauses in which a default case and two logically related marked cases have been identified. It has then been argued that this relationship has a reflex in the syntax in the form of a ‘tense feature’ on the Asp head of the gerund which is checked when *V+ -ing* moves to Asp at LF.

⁷⁹Recall from 3.1.2 Stowell’s proposal that non-finite CPs (e.g. control complements) have internally determined tense and that this is uniformly ‘unrealized with respect to the matrix’. The point is illustrated in the following (his (8a), (9a), and (11a), respectively):

- (i) Jenny remembered [[PRO to bring the wine]]
- (ii) Jim tried [[PRO to lock the door]]
- (iii) John convinced his friends PRO to leave

In matrix CPs any one of the values +/-past or ‘unrealized with respect to the matrix’ is possible, while in control complements you get ‘unrealized with respect to the matrix’ only.

3.4 Distribution of Lexical NP and PRO Subjects and the Tense Feature on Asp

It has already been argued in 3.1.1 that the full distributional paradigm of lexical NP and PRO subjects in gerunds, illustrated again below, is not amenable to the same account as it receives in non-finite clauses generally.

- (69) a. John remembers/recalls/regrets [Mary/PRO bringing the wine]
b. John prefers/likes/hates[Mary/PRO living next-door]
c. John intends/proposes/recommends/advocates [Mary*/PRO leaving after lunch]
d. The lecturer saw [the students/PRO* talking]⁸⁰

Our aim in this section will be to show how exactly positing a T feature on the proposed Asp head of these gerunds makes available an explanation of the above paradigm. Answers will be proposed to the following three questions: i) why either lexical NP or PRO is possible both in the default case with regard to the temporal interpretation of the gerund (i.e. with verbs like *prefer*) and when matrix V is semantically associated with past tense (i.e. verbs like *remember*); ii) why lexical NP is prohibited when matrix V is semantically oriented towards future tense (e.g. verbs like *intend*); iii) why PRO is prohibited in perception gerunds.

Two obvious possibilities arise with regard to the proposed T feature which will prove crucial to answering the above - namely, by analogy with the head of TP occurring in matrix and infinitival clauses, it can be assumed that the T feature on Asp is either +finite or -finite. The + finite variant must be the one which occurs in examples like (69)b, since the gerund event is contemporaneous with the matrix event and the matrix event is finite. Extending the comparison with the head of TP further, it is also to be expected that if the tense feature on Asp is +finite a lexical subject will be Case-licensed in [Spec, AspP].

⁸⁰We follow Tunstall (1993) in analyzing this perception gerund as an AspP sister to V. The main reasons for treating it as structurally identical to the other Gerund Clauses discussed above are as follows: i) like them, it can be questioned (*What did Wayne see? - Mona stealing oranges*) and clefted (*What we saw was Beth kissing Hal*); ii) like them, it can take an expletive subject (*We saw it raining and didn't go out*); iii) unlike perception verbs such as *find* and *discover*, it can select a bare VP i.e. another event-denoting complement, in addition to a gerund (*Wayne saw/*found Mona steal oranges*). As noted above, a second, additional, underlying structure for gerund complements to verbs like *see* and *hear* will be proposed in 3.5 (accounting for the fact that subject movement to matrix [Spec,IP] under passivisation is allowed with these verbs).

In examples like (69)a, where the gerund event is interpreted as having taken place before the matrix event, the T feature on Asp must again be +finite since the gerund event is clearly interpreted as such. This explains why here also a lexical NP is Case-licensed as subject.

The fact that PRO is not in complementary distribution with lexical NP either in (69)a or (69)b is fully predictable from our analysis in Chapter 2 of subject Case-licensing in AspP adjuncts, and constitutes one of the main syntactic differences between subject Case-licensing in AspP and TP. There it was argued that the conditions necessary for the Case-licensing of a lexical NP in AspP are stricter than those required when the subject is PRO, but that in principle either subject type is possible in a clause of this kind.⁸¹ Our proposal is that a similar situation obtains with regard to the Case-licensing of lexical NP and PRO in Gerund Clause complements to V: PRO is licensed on the sole condition that the Asp head contains a T feature, regardless of whether this is +finite or -finite. For lexical NP to be licensed a stricter condition applies - not only must there be a T feature on Asp but it must also be +finite. As in adjunct AspPs, therefore, alternations between lexical NP and PRO are possible in the relevant contexts. However, if no more than the minimum condition for licensing PRO obtains (i.e. a T feature is present but it is not +finite), then lexical NP is prohibited. In (59)a&b, therefore, since the T feature is finite, either lexical NP or PRO is permitted.

In (69)c, where matrix V is semantically oriented towards future, only those conditions for licensing a PRO subject are satisfied. This is because the tense of the gerund is interpreted as 'unrealised' with respect to the matrix in the same way that, as argued in Stowell (1982)b, the infinitival complement of a verb like *expect* is 'unrealised' with respect to

⁸¹A lexical NP is Case-licensed subject to two distinct sets of conditions, depending on whether the Asp head of the adjunct is a-telic or telic: if it is a-telic then Case-licensing must either be in a spec-head configuration with *ing* (under Asp), or in a (pre-LF) ECM configuration with *with*. If the Asp head is +telic then it Case-licenses the subject without either - *ing* or ECM. In contrast to these very specific restrictions governing the Case-licensing of lexical NP, all that is required for a PRO subject is the presence of an Asp head.

the matrix.⁸² The T feature on Asp is therefore -finite and consequently a lexical NP subject is prohibited.

Finally we come to perception gerunds where, as illustrated in (69)d above, the subject can only be a lexical NP. The impossibility of PRO alternating with lexical NP is unexpected here since on our theory either a +/- finite T feature should be sufficient to Case-license PRO. To understand why it is not sufficient, the manner in which the temporal interpretation of these gerunds is arrived at must first be taken into account. Take, for example, (70)a-c below:

- (70) a. John saw [Wayne stealing oranges]
b. John sees [Wayne stealing oranges]
b. John will see [Wayne stealing oranges]

The important point to note here is that in each case the tense of the gerund is interpreted as the same as that of matrix V i.e. past, present and (possible) future, respectively. Since this is exactly the type of temporal relationship characterised above as the default case with regard to the temporal interpretation of the complement, it seems reasonable to propose that in examining the ungrammaticality of a PRO subject in perception gerunds a comparison needs to be drawn with *PRO+V-ing* complements to the other verbs giving rise to the default case i.e. *prefer, like, hate* and *appreciate*.

As (71)a&b below show, when these verbs take a *PRO+V-ing* complement it is interpreted as an habitual (in the absence of any adverbial modification to the contrary).⁸³

- (71) a. John prefers/likes/hates/ PRO listening to music
b. John preferred/liked/hated/appreciated PRO working at home

⁸²See footnote 29 above on the notion 'unrealised with respect to the matrix' as it applies to an infinitival or Gerund Clause selected by a verb semantically oriented towards the future, as distinct from when it applies to a finite clause with a future tense verb. Recall also that although the temporal interpretation of an infinitival complement of a verb with an ECM property can, like that of a control infinitive, be 'unrealised with respect to the matrix', this only arises in the former case if matrix V is semantically oriented towards the future (*expect*); control infinitives, on the other hand, are uniformly interpreted as such. In other words, as explained in 3.1.2, tense is independently determined in control infinitives only.

⁸³e.g. 'John preferred climbing the tree *yesterday*' is not an habitual.

Our proposal is that the semantics of perception verbs is such that it is incompatible with the habitual interpretation associated with *PRO+V-ing* found in the comparable context of gerund complements to verbs like *prefer, like, hate* and *appreciate*. Safir (1993) has observed that there are, in fact, two kinds of *see*, one he terms 'direct vision *see*', the other 'non-vision *see*'. He argues that 'non-vision *see*' only occurs with an IP complement, as in (72)a below, while 'direct-vision *see*' takes a bare VP complement, as in (72)b.⁸⁴

- (72) a. We will probably see [_{IP} there be fewer complains]
 b. Carmen saw [_{VP}Emma kiss Mary]

Of interest here is Safir's observation that with 'direction-vision *see*' the time frame of the act of perception exactly matches that of the complement event, while this is not the case with 'non-vision *see*'.⁸⁵ It seems clear that the *see* which selects perception gerunds, like the one which selects bare infinitives, is 'direct vision *see*' since, in contrast to examples like (72)a, a single event only is perceived (in the absence of any adverbial modification to the contrary),⁸⁶ and this is contemporaneous with the perceiving event. The only difference in terms of interpretation between the bare infinitive and the gerund complement to 'direct-vision *see*' is that the event referred to in the gerund is interpreted as a-telic, while with the bare infinitive it is not.

Given that a perception verb forces a 'single' event reading of its gerund complement and *PRO+V-ing* is typically interpreted as habitual in the relevant context (i.e. the default case with regard to temporal interpretation) it follows that a *PRO+V-ing* complement is not predicted to be grammatical with a perception verb.

Summing up this section as a whole, it has been argued that the tense feature on Asp in a Gerund Clause is +finite in all cases except when matrix V is semantically oriented

⁸⁴Safir's examples (2)b and (1) respectively.

⁸⁵See also (i) below in which matrix V is equivalent to 'non-vision *see*' (Safir's (14b)):

- (i) Our hero perceived the maiden to have entered

Note how the hero's perception that the maiden had entered may take place well after her actual entrance.

⁸⁶e.g. *everyday* or *several times*

towards future time. A +finite T feature on Asp can Case-license either a lexical NP or PRO subject in [Spec, AspP]. This is because lexical NP and PRO are not in complementary distribution in AspP but rather the conditions for Case-licensing lexical NP are simply stricter than those for Case-licensing PRO. When the tense feature on Asp is -finite, only a PRO subject is Case-licensed. Although in perception gerunds the tense feature is +finite, a PRO subject is not allowed because the ‘single event’ interpretation of perception gerunds (when matrix V is *see/hear*) is incompatible with the habitual interpretation of *PRO+V-ing* gerunds found in the default Case of the temporal interpretation of gerunds.

The analysis proposed above not only brings together the temporal relationship between a matrix verb and its gerund complement and the distribution of lexical NP and PRO subjects in a way which is in keeping with the conclusions already reached in Chapter 2, but it also accommodates other facts noted in 3.1, relating to clefting of the Gerund Clause and subject movement to matrix [Spec, IP] under passivisation, which rule out subject Case-licensing via a pre-LF ECM configuration. In the next section we address a notable difference between the perception gerunds discussed above and gerunds generally, with regard to passivisation, which in addition to other facts to be raised below, suggests that these have available to them a second underlying structure in addition to AspP.

3.5 A Second Structure for Perception Gerunds in addition to AspP

The point was made in 3.1 that an ECM account of subject Case-licensing in gerunds is not consistent with the fact that the Gerund Clause can be clefted and that the subject generally cannot move to matrix [Spec, IP] under passivisation (examples repeated from above):

- (73)
- a. John remembers Mary leaving
 - b. Mary leaving is what John remembers
 - c. *Mary was remembered/recalled/regretted/preferred/liked/appreciated t buying the dress

An analysis in which Case-licensing comes from within the gerund, as on our account, was therefore shown to be preferable. What must be explained next is why, as illustrated below, passivisation of the kind in (73)c, in addition to clefting, is actually grammatical with certain perception gerunds:

- (74) a. John saw Mary stealing oranges
 b. Mary was seen t stealing oranges
 c. Mary stealing oranges is what John saw

An obvious solution to (73)c versus (74)b would be to posit two distinct underlying structures for these perception gerunds, one of which would be the source for clefts, the other for passives. In fact, Tunstall (1993) has already argued convincingly, for independent reasons, that there is indeed a case for proposing two structures.⁸⁷ On her theory a perception verb like *see* can in one context select an event-denoting complement in the form of AspP (with *Mary* in the specifier), as proposed here, and in the other, an individual-denoting complement i.e. the DP *Mary*, with a PRO-ing adjunct to VP denoting what the individual was doing at the time of being perceived. The latter is referred to by her as a 'DP+pseudo-relative'. The option to select either the AspP complement or the pseudo-relative is understood to be available to 'true' perception verbs only (e.g. *see* and *hear*); verbs of 'encounter' (e.g. *find*, *discover*, *spot* and *catch*), on the other hand, always select the DP+pseudo-relative.⁸⁸

⁸⁷It should be pointed out here that Tunstall treats the gerund complement of perception verbs as categorially distinct from gerund complements to other verbs. When matrix V is *remember*, for example, the gerund is analysed as a DP, along the lines proposed in Abney (1987). Recall that Reuland (1983), unlike Johnson (1988), also proposes that the two types of gerund complement are categorially distinct, perception gerunds being treated as a type of Small Clause (e.g. VP or AP) and NP+V-ing as CP. We argued against this Small Clause analysis of perception gerunds. However, we agree, as indicated, with the assumption in Reuland (1983) and Tunstall (1993) that perception gerunds have available to them a structure which is not found with gerunds generally.

⁸⁸The following three syntactic differences between examples with true perception verbs and those with verbs of encounter are identified as support for this position (those properties of true perception verbs referred to here have already been raised independently in footnote 81 above): i) verbs of encounter, unlike true perception verbs, do not have the option to take either a bare infinitive complement or a gerund complement, (see example in footnote 80, point (iii)). The fact that these verbs do not select an event-denoting complement in the form of a bare infinitive suggests that they might also not select a clausal (gerund) complement; ii) the gerund complement of true perception verbs can be clefted (and questioned), while this is either ungrammatical or marginal with the complement of a verb of encounter (e.g. *What we saw was Beth kissing Hal* versus *??What Rachel discovered in the woods was Liz leaning against a tree*). This is to be expected if the DP complement of a verb of encounter does not form a constituent with V-ing; iii) when matrix V is a true perception verb the lexical NP interpreted as the subject of the gerund can be an expletive, while with a verb of encounter it cannot (e.g. *We saw/*discovered it raining and didn't go out*).

In accounting here for the passivisation facts noted above our assumption will be that two structures are indeed available, one of which is AspP, as proposed by Tunstall. In spite of the fact that the 'DP+pseudo-relative' could accommodate the case of passives like (74)b, it will be rejected here in favour of a structure of the kind proposed in Larson (1991) for object control verbs, for reasons to be set out below. We begin, therefore, with the evidence against a 'DP+pseudo-relative' structure (3.5.1); the case for a Larsonian type analysis will then be presented as a more plausible alternative (3.5.2).

3.5.1 Arguments against Tunstall's DP+pseudo-relative structure for perception gerunds

Two main difficulties arise, as we see it: the first concerns the fact that PRO is controlled by the object of matrix V. As noted in Manzini (1997:16) a matrix object, in general, cannot serve as controller for the PRO subject of an adjunct; this is in keeping with the Minimal Distance Principle (MDP) proposed in Rosenbaum (1967) according to which PRO is controlled by the closest available antecedent, where 'closest' is defined in terms of C-command. The following examples, showing obligatory subject control of the PRO in a *PRO+V-ing* gerund adjoined to VP, illustrate the point.⁸⁹

- (75) a. John left us before PRO eating
b. John left us without PRO asking

In (75)a&b *before* and *without* make the adverbial function of the gerunds clear i.e. they are unambiguously VP adjuncts of time and manner respectively. In fact, when the gerund is not preceded by an element of this kind ambiguity can arise between subject or object control:

- (76) John left us PRO swearing vengeance

⁸⁹Manzini's (42) and (43).

Just because an object control reading is available in (76), however, does not mean that control on that reading takes place into a VP adjunct. We suggest, rather, that in such cases the Gerund Clause is a restrictive modifier i.e. a clausal sister to N (of the kind proposed for so called 'participial clauses' in Reuland 1983:115),⁹⁰ so that the direct object does actually C-command PRO. (76), therefore, is not a counterexample to the claim that a direct object in general cannot control the PRO in an adjunct.⁹¹ This being so, the proposed DP+pseudo-relative structure in which the direct object controls the PRO subject of an adjunct to VP seems unlikely to be correct.

The second objection to this structure concerns the proposed adjunct-status of the gerund phrase. If it is indeed an adjunct then the prediction is that extraction of an object from within it should at least to some extent reflect the fact that adjuncts are islands for extraction. More specifically, extracting the object of a perception gerund with this structure should yield the same result as extracting the object of the gerund in (76) on a subject control reading (i.e. one in which the gerund is unequivocally a VP adjunct). As is clear from the difference in acceptability between (77)a&b below, this is not the case:⁹²

⁹⁰See also footnote 13

⁹¹Tunstall cites two examples of a non-finite adjunct being controlled by an object DP, in support of her proposed DP+pseudo-relative structure. The first is a *PRO+V-ing* gerund, the other an infinitival (purpose clause) :

- (i) a. You can't hit him_i PRO_i sitting on the ground
 b. Lorraine brought her daughter a new toy PRO to play with

We suggest that the gerund in (i)a is not, in fact, a VP adjunct but rather a restrictive modifier of the direct object, as proposed for (76) above (on an object control reading) i.e. it is an (AspP) sister to N and so *him* does c-command PRO.

With regard to (i)b an analogy can be drawn with examples like the following, discussed in Larson (1991):

- (ii) John promised Mary_i PRO_i to be allowed to leave

Given the analysis Larson proposes for *promise* constructions (i.e. the indirect object originates as sister to a lower V and moves to the specifier of the lower V for Case; the infinitival clause is adjoined to V') *Mary*, in (ii), does not c-command PRO at DS (where Larson assumes control relations are determined). To account for (ii), therefore, he proposes that *Mary* is understood as the subject of the infinitival through a chain of entailments arising from the fact that *promise* is a dative verb; in this example the entailments override control relations to yield the correct interpretation. Since *bring* in (i)b also takes an indirect as well as a direct object, the former being interpreted as a beneficiary, a similar analysis in which entailments override control is possible.

⁹²Note that (77)b is also marginal on an object control reading i.e. one in which, on our account, the *PRO+V-ing* phrase is a restrictive modifier (i.e. a sister to N). This is as expected since the *PRO+V-ing* sister to N, like the PRO-ing adjunct to VP (on a subject-control reading), is not L-marked. In both cases, therefore, the trace is theta-governed but not antecedent-governed.

- (77) a. What did John see Wayne_i PRO_i stealing t?
 b. ??What did John_i leave us [PRO_i swearing t]?

In fact a solution to the above asymmetry is available within Tunstall's own account i.e. examples like (77)a may be said to derive from the first structure proposed for perception gerunds, in which the gerund is an AspP complement to V. However, this does not explain why we also get a perfectly grammatical result when verbs of encounter (e.g. *find*, *discovers*, *spot* and *catch*) are substituted for *see* in (77)a, since these are understood by her not to have the alternative 'AspP complement to V' structure available:

- (78) a. What did you find/discover/spot/ Wayne PRO stealing t?
 b. ??What did John_i leave us [PRO_i swearing t]?

In short, the asymmetry between (78)a&b, above, and in particular the marginal grammatical status of the latter, suggests that the gerund is located differently in each example. Since the obvious position for the subject controlled gerund in (78)b is adjoined to VP (so that a reading in which the object is the controller is eliminated), the DP+pseudo-relative structure assumed for (78)a in which the gerund is also VP adjoined, seems not to be correct.

If it is not the right structure for gerunds selected by verbs of encounter then it is unlikely to be right for those selected by true perception verbs, since the most reasonable assumption is that there is a single structure which can capture the grammaticality of passives, in both cases, while at the same time only ruling out an expletive NP before *V-ing* and clefting of the gerund in those examples where matrix V is a verb of encounter.

Finally, note that if (74)a really contained a VP adjoined *PRO+V-ing*, then it ought to be possible to replace it with an adverbial question phrase e.g. *how*, as is possible for the gerund in (76) on a subject control reading. As the following asymmetry illustrates this is not the case:

- (79) a. How_j did John_i leave us t_j?.....[PRO_i swearing!];
 b. *How_j did John see Wayne_i?.....[PRO_i stealing!];

To sum up our arguments against the DP+pseudo-relative structure: the direct object, contra expectations, controls the PRO subject of a VP adjunct (i.e. there is no c-command), and the *PRO+V-ing* adjunct does not behave as an adjunct with regard to extraction. Our conclusion is therefore that an object control structure of the kind proposed by Larson for *persuade* would be a more appropriate one to capture the syntactic facts.

3.5.2 Gerund complements of true perception verbs: a comparison with Larson's account of object control with *persuade*

When the verb *persuade* selects a DP object followed by an infinitive with a PRO subject, as in (80) below, the object is interpreted as the controller of PRO:

- (80) The students persuaded the professor PRO to increase the grades

Our contention is that the analysis of (80) proposed in Larson (1991) can be extended to examples like (74)a above in which a true perception verb takes a gerund complement. Before identifying the parallels between the two constructions which justify such a claim, a brief summary of Larson's approach to examples like (80) is in order.

The VP is assumed to have an outer and an inner layer of the kind proposed initially for double-object-constructions in Larson (1988).⁹³ As illustrated in (81) below, the inner one contains the infinitive in complement position (i.e. sister to lower V), the object DP in the specifier, and *persuade* under V. V moves in the course of the derivation to the head of the outer VP from where it assigns structural Case to the direct object. The matrix subject,

⁹³In adopting this structure Larson assumes a tight relation between thematic and categorial structure such that all arguments of a given predicate must be realized within a projection of that predicate. Given that a double object verb like *give* (or a verb like *persuade*) has three arguments and that there are only two A-positions in a single VP layer (assuming binary-branching), the second layer provides the necessary additional structure to accommodate the external argument.

originates in spec-outer VP and moves to [Spec, IP] for Case.

- (81) The students_j [_{VP} t_j [_V persuaded_i [_{VP} the lecturer [_V t_i [_{IP} PRO to increase the grades]]]]]]

Examples like (74)a with a matrix perception verb and a gerund in the complement have a number of properties in common with *persuade* constructions which we identify now below, as support for the claim here that they have the same underlying structure.

3.5.2.1 *Pro+V-ing* as a second ‘object’ of *see*

It is conceivable that the perception verb, like *persuade*, actually subcategorises for two hierarchically equal complements i.e. a DP and a gerund with a PRO subject, as in the following:⁹⁴

- (82) John_j [_{VP} t_j [_V saw_i [_{VP} Wayne [_V t_i [_{AspP} PRO stealing oranges]]]]]]

(82) would describe a situation in which both an individual *and* an event are perceived, as distinct from one in which an individual is perceived while doing something (cf. the reading Tunstall gives her DP+pseudo-relative structure).⁹⁵ The subject-predicate sequence

⁹⁴The proposed *PRO+V-ing* argument here is clearly not semantically incompatible with *see*, unlike the *PRO+V-ing* in (69d) above. This is not particularly surprising since this *PRO+V-ing* is the second object argument of what may be termed a ‘double object’ construction. The habitual interpretation of *PRO+V-ing* which we have argued above triggered the incompatibility with direct vision *see*, presumably only arises when *PRO+V-ing* is the object of a transitive verb in the relevant class (i.e. the default case with regard to temporal interpretation) e.g. *prefer, like, hate*.

⁹⁵Since the direct object is the nearest C-commanding NP in (82) it serves as the controller of PRO. In examples where there is also a reading in which the subject of the perception verb is interpreted as controller (e.g. *John_j saw the postman PRO_i eating his breakfast on the veranda*), the most likely position for *PRO+V-ing* is adjoined to matrix VP (giving a structure like Tunstall’s DP+pseudo-relative, but crucially, with subject rather than object-control) so that the subject is the nearest C-commanding NP.

It should be noted that subject control of the PRO in a Gerund Clause is not only possible when matrix V is a perception verb, but also with verbs like *remember* e.g. *John_j remembered Mary PRO_i playing nostalgic songs on the piano in his sitting room*. That a *PRO+V-ing* in examples of this kind is actually an adjunct (to VP) is evident from the fact that extraction of a direct object out of the gerund (on this subject control reading) is not acceptable:

Pro+V-ing might therefore be loosely described as a second ‘direct object’ of the perception verb in the same way that in (80) above *PRO to increase the grades* is on a par with the second object of a dative complement construction.⁹⁶

Higginbotham (1983) has examined the logic and syntax of bare infinitive complements of *see* (e.g. ‘Mary leave’ in *John saw Mary leave*) in a manner which might at first seem to have the potential to throw some light on the syntax of perception gerunds. He comes to the conclusion that semantically the bare infinitive complement is an indefinite description of an ‘individual-event’ which like indefinite nominals raises at LF in order for its scope to be assigned. This theory is then employed to explain, among other facts, why the subject of a bare infinitive complement of *see* cannot move to matrix [Spec, IP] to form a passive. Below we review Higginbotham’s paper to show that his account of bare-infinitive complements of *see*, if extended to perception gerunds, cannot solve the syntactic puzzles relating to them which have been identified above.

3.5.2.1.1 Higginbotham (1983) on the logic of perceptual reports

The predicate of the complement in (83) below is a bare infinitive which combines with the embedded subject to form what is referred to by Higginbotham as an ‘unsupported’ clause:

(83) John saw [Mary leave]

An unsupported clause is defined as one which lacks verbal inflection of any kind and in

-
- (i) a. *What_t did John_i see the postman PRO_i eating t_j on his veranda?
b. *What_t did John remember Mary PRO playing t_j on the piano in his sitting room?

Why extraction out of these VP adjuncts should be worse than extraction out of the VP adjunct in (77b) above is not clear.

⁹⁶In a dative complement construction the second object is governed by a preposition and is therefore an *indirect* object. In the case of object control complements and subject-predicate complements to *see* the distinction between direct and indirect ‘object’ is not relevant since there is no preposition involved and the phrase with PRO as subject is simply the second complement of the verb.

this respect differs from tensed clauses, infinitival clauses and complements with progressive *ing*.⁹⁷ In arguing that an unsupported complement to a perception verb is an indefinite description of an individual-event Higginbotham adopts the view of Donald Donaldson that events and happenings are individuals and that action sentences involve implicit existential quantification over events (e.g. *John runs* might be represented as $\exists x: x$ is an event] run (John, x)).⁹⁸ Higginbotham draws an analogy between (83) and sentences like (84) below in which the nominal complement of *behold* is also a description of an individual-event of departing, with the difference that in this case the description is definite rather than indefinite:

(84) John beheld Mary's departure

(85) below shows the logical representation assigned by Higginbotham to the unsupported clause in (83), on the assumption that this phrase involves implicit quantification over events:⁹⁹

(85) $\exists x: x$ is an event] leave (Mary, x)

When (85) is embedded under *see*, as in (83) above, the result is as follows:

(86) $\exists x: x$ leave (Mary, x)] John saw x

The main advantage of an individual-event analysis of unsupported clauses is that it succeeds in capturing the generalizations put forward in the 'situation semantics' account of perceptual reports found in Barwise (1981).¹⁰⁰ In fact, Higginbotham sets out to

⁹⁷The reason for not including complements with progressive *ing* in the category of unsupported clauses is not actually stated but it can be assumed that it is because the passivisation facts, as will become clear below, would not be consistent with Higginbotham's account of the syntax of unsupported clauses. From the perspective of interpretation alone, however, there would seem to be no differences of a kind which would argue against an individual-event analysis of the gerund complement also.

⁹⁸In Nicholas Rescher, ed., *The Logic of Decision Action* (Pittsburgh, Pa.: University Press, 1967).

⁹⁹The constituent $\exists x: x$ is an event] of (85) is a restricted existential quantifier and can be read 'for some x such that x is an event...' (cf. *Many books are boring*: [Many x: x is a book] x is boring).

¹⁰⁰In Barwise (1981) a semantic analysis of perceptual reports is formulated which is designed to exemplify the merits of the semantic theory termed 'situation semantics' which was being developed at the time in collaboration with John Perry. The generalizations identified by Barwise are explained in Barwise (1981) through situation semantics, and counterexamples to other systems are provided.

demonstrate that the semantic facts noted by Barwise can be accounted for without recourse to ‘situation semantics’.

The three fundamental generalisations about bare infinitive complements of *see* noted by Barwise which Higginbotham’s system captures are expressed in the conditionals cited in (i)-(iii) below. Following each generalisation we give Higginbotham’s expression of the same fact on his system:

(i) *Veridicality*

If John sees S, then S’ (S is the unsupported clause, S’ is the present tense full clause corresponding to S, and S is quantifier free).¹⁰¹

(87) $\exists x: x \text{ is an event} \text{] leave (Mary, x)] John sees } x. \supset \exists x: x \text{ is an event} \text{] leave (Mary, x)]$

(ii) *Principle of Substitution*

The context ‘V-’ is referentially transparent if V is a perception verb and what fills the blank is an unsupported clause. This follows from Higginbotham’s analogy between the unsupported clause in (83) and the nominal complement to *behold* in (84).

(iii) *Lack of Scope Ambiguity of Quantifiers*

If John sees somebody leave, then there is somebody whom John sees leave.¹⁰²

(88) $\exists y: y \text{ is a person} \text{] } \exists x: \text{leave (y,x)] John saw } x. \supset \exists y: y \text{ is a person} \text{] } \exists x: \text{leave (y,x)]$

As indicated above, Higginbotham argues that the ungrammaticality of passives of the

¹⁰¹Higginbotham notes that while veridicality does not hold for examples like *John saw nobody leave* it does hold when the embedded subject is ‘somebody’. He analyses *no* therefore, as a restricted quantifier which is not *monotone increasing* and predicts that veridicality will hold only with respect to NI infinitive complements whose quantifiers are monotone increasing (note that in Barwise’s version of this generalisation the unsupported clause is simply required to be ‘quantifier free’).

¹⁰²Again this is not true if *nobody* is inserted in place of *somebody* (see footnote 101 above).

kind in (89)a below can be explained on his system. An important observation for his account is the fact that although passivisation is ungrammatical, movement of the embedded subject to form a question, as in (89)b is possible:

- (89) a. *John was seen t leave
b. Who did you see t leave?

What is proposed is that in (89)a the bare infinitive complement of *see* (with a trace as subject) is an unsupported clause denoting an indefinite individual-event which must move at LF in order for its scope to be assigned. The result is as follows:

- (90) [_i leave]_j [John_i was seen t_j]

(90) is not a well formed structure, firstly, because the trace of John is not within the scope of its antecedent and, secondly, because the matrix *John was seen t_j* (where *t_j* is not the trace of *John*) is no more grammatical than *John was seen Mary*. (89)b, in contrast to this, is well-formed because the bare infinitive complement adjoins to IP at LF, allowing the trace of the embedded subject to be antecedent governed by the WH-phrase in [Spec,CP].

There is some evidence against Higginbotham's claim that the unsupported clause moves in the manner of a quantified nominal at LF: if the unsupported clause is actually a constituent (i.e. a nominal) at LF then the projection principle requires that it must also be so when it is inserted into the derivation. The ungrammaticality of examples like the following in which this proposed constituent undergoes clefting and WH-movement, respectively, is therefore surprising:

- (91) a. * Mary leave is what John saw
b. *What did John see? Mary leave

Any account of the passivisation facts illustrated in (89)a above, which treats the unsupported clause as a constituent, will encounter this difficulty. A possible solution, of course, would be to propose two distinct syntactic structures for bare infinitive complements to *see*, one of which would be as proposed by Higginbotham

Turning now to perception gerunds: recall that both clefting and WH-movement of the kind in (91)a&b are actually grammatical with complements of this kind. This might seem to argue in favour of at least adopting Higginbotham's theory for perception gerunds. However, passives of the kind (correctly) ruled out for unsupported clauses on Higginbotham's system are the very ones which are possible with perception gerunds, as already noted above (*Mary was seen leaving*). Thus, if an individual-event analysis of the kind proposed for bare infinitive complements of *see* were to be applied to perception gerunds, we would be faced with the same puzzle as the one presented at the beginning of this section on the structure of perception gerunds, namely, why passives (as well as clefts and WH-movement) are possible with *NP+V-ing* complements to *see*. Thus, while Higginbotham's analysis is not altogether inconsistent with the first structure which we propose for perception gerunds i.e one in which the *NP (lexical)+V-ing* complement of *see* is a constituent, it leaves the passivisation facts relating to perception gerunds unresolved.

We come next to some comparisons between perception gerunds and object control constructions in terms of potential for syntactic movement.

3.5.2.2 Movement within Gerund Clauses and object control constructions

Notice that the perception gerund, like the infinitival argument of *persuade*, cannot undergo Wh-movement in an interrogative, unlike the infinitival argument of *promise*:¹⁰³

- (92) a. *What did John see Wayne t?
 b. *What did the students persuade the professor?
 c. What did the students promise the professor t?

In contrast to this, the DP object of both the perception verb and *persuade*, in the same examples, *can* be questioned, as in (93)a&b below; when matrix V is *promise*, as in (93)c,

¹⁰³Larson gives examples with *promise* the same underlying structure as he gives double-object constructions in Larson (1988), (see footnote 92 above).

on the other hand, it cannot:

- (93) a. Who did John see t PRO stealing oranges?
b. Who did the students persuade t to increase the grades?
c. *Who did the students promise t to increase the grades

The DP object of a perception verb, as illustrated above, can also move to matrix [Spec, IP] under passivisation; when matrix V is *persuade* the same is true, but again not when it is *promise*:¹⁰⁴

- (94) a. John was persuaded t PRO to leave
b. *John was promised t PRO to leave

Finally, the DP object of a perception verb can undergo Heavy NP Shift, like the DP object of *persuade*, but again unlike the DP object of *promise*:¹⁰⁵

- (95) a. John saw t stealing oranges [the two sons of his nearest neighbour]
b. John persuaded to leave t [all the people who had no business being there]
c. ?? John promised t to leave all the people who didn't want him there

In view of the above parallels between *persuade* with an infinitive in the complement, as in (80), and perception verbs with a gerund in the complement, as in (74)a, the conclusion here is that (74)a has a reading in which the underlying structure is the same as that proposed by Larson for (80). This structure ((82) above) has the advantage of being able to account for two important properties of perception gerunds which are not shared by gerund complements to V generally i.e. the grammaticality of passives in which the subject of the gerund moves to matrix [Spec, IP], and the impossibility of replacing the lexical NP directly preceding *V+ -ing* with PRO:¹⁰⁶ since the DP is located in the specifier of the inner VP and receives Case from the verb in the higher V head passivisation is possible and PRO is prohibited.

¹⁰⁴The indirect object of *promise* is the sister of V at DS and therefore cannot control the PRO subject of the infinitive (which is adjoined to V'). Recall from footnote 92 that control on Larson's assumption, is determined at DS. PRO is therefore without a controller in this example.

¹⁰⁵Examples (76b&c) are from Larson (1991:106&104) but he does not treat this movement as heavy NP Shift.

¹⁰⁶e.g. *John, saw PRO, winning first prize*. Recall that the prohibition on a PRO subject in a gerund which is an AspP sister to a perception verb has already been accounted for in 3.4.

Summing up section 3.5 as a whole, it has been argued that 'true' perception verbs like *see* and *hear*, in addition to selecting an AspP Gerund Clause as complement, can also select a double complement consisting of DP and *PRO+V-ing*, as in Larson's (1991) account of object control. This explains why the subject of a 'true' perception verb, unlike the subject of gerund complements to other verbs (which only select AspP) can move to matrix [Spec, IP] under passivisation. It also explains why 'true' perception verbs, like other gerund-selecting verbs, allow an expletive before *V-ing* while verbs of encounter do not.

3.6 Conclusion

In this chapter we have argued that Gerund Clauses are AspPs rather than CP/IPs and that Case-licensing of the subject takes place via a tense feature on the head of Asp which can be either +/-finite, the former licensing either lexical NP or PRO, the latter PRO only.

An important advantage of this analysis is not only that it is in keeping with the absence of any convincing evidence that Gerund Clauses are CPs, but also that it provides an explanation for the full distributional paradigm of lexical NP and PRO subjects which cannot be satisfactorily accounted for by simply employing the same principles as have been invoked in the literature to account for lexical NP and PRO subjects in infinitival clauses.¹⁰⁷

Our proposal that subject Case-licensing in gerunds takes place via a tense feature on the head of the Gerund Clause whose value is determined by lexical properties of matrix V has an important advantage over other accounts of subject Case-licensing in gerunds - it links the observation in Stowell (1982)b that the matrix verb largely determines the interpretation of tense in the gerund with our observation that the temporal interpretation of the gerund in turn is apparently implicated in determining whether or not a lexical NP

¹⁰⁷e.g. an optional CP layer or an optional preposition in C.

is possible as subject. The simplest example of this is the case of matrix verbs like *intend* which are semantically associated with future tense and crucially do not allow a lexical NP subject in the gerund.

By classifying verbs on the basis of the way in which they determine the tense of the gerund complement (i.e. by default, or via the semantic association of the verb with a specific tense) we have made it possible to provide a principled account of the full distributional paradigm of lexical NP and PRO subjects: in the default Case (e.g. when matrix V is *prefer*) the matrix and complement event are contemporaneous - since the matrix event is finite and the gerund is contemporaneous with it the gerund can also with reason be said to be interpreted as +finite and therefore to have a +finite tense feature on the Asp head. Linking this in turn with the availability of a lexical subject also seems correct, since a +finite tense feature typically Case-licenses a lexical NP subject. When matrix V is semantically associated with past tense (e.g. *remember*) the gerund event is also interpreted as having taken place, and so the tense feature is again assumed to be +finite. With verbs like *intend*, which are semantically associated with future, the complement is interpreted as 'unrealised with respect to the matrix' and therefore a -finite T feature is assumed - the prohibition on a lexical NP subject therefore receives a plausible explanation.

The claim that where lexical NP is licensed PRO is also but not vice-versa is supported by the evidence in Chapter 2 that in clausal AspPs more is needed to license lexical NP than PRO because the latter is non-overt. The fact that in gerund complements to perception verbs a PRO subject, contra expectations, is prohibited has been attributed to a semantic incompatibility between these verbs and the habitual interpretation of *PRO+V-ing* in comparable contexts - this allows a unified account of all Gerund Clauses to be retained while at the same time taking into account the individual semantic properties of perception verbs which are well attested in the literature.

Finally, the proposal that gerund complements of perception verbs like *see* and *hear* (true

perception verbs) can have a type of double-object structure like that proposed by Larson for object control verbs allows us to explain, among other facts, why the subject of the gerund can move to matrix [Spec, IP] under passivisation and also provides a more plausible alternative to the DP+pseudo relative construction proposed by Tunstall to account for the parallels identified by her between gerund complements of true perception verbs and verbs of encounter.

Chapter 4

Irish Small Clauses

4.0 Introduction

In the previous two Chapters we have rejected the assumption in the literature generally that English Absolutes and *NP+V-ing* complements to V are IP/TPs, analysing them instead as clausal AspPs. This was shown to have the advantage of being able to explain in a more principled and comprehensive manner than hitherto available, how subjects are Case-licensed in Absolutes, and the distribution of lexical NP and PRO subjects in *NP+V-ing* complements. In this Chapter it will be argued that clausal AspPs are also attested in Irish. The two main examples proposed will be SCs (small clauses) with a predicate headed by the progressive marker *ag* and SCs preceded by *agus* which, in uncontroversial co-ordination contexts, is the Irish equivalent of English *and* (see McCloskey 1986a), but will be analysed here (in SCs), like *ag*, as Asp-generated. The analysis of these SCs as AspPs will ultimately be extended to examples without aspectual morphology.

In arguing that SCs have functional structure we oppose the general view (Chung and McCloskey 1987, McCloskey and Sells 1988, McCloskey 1991)¹ that these are bare lexical projections, and offer an alternative to the notion, originating in Chung and McCloskey (1987), that the subject of a SC is typically Case-licensed by default.² Not only does this

¹Doherty (1996) also treats SCs containing *ag* in adjunct position as 'bare predicational structures'.

²Chung and McCloskey (1987) and McCloskey and Sells (1988) use the term 'default Case' to refer to the accusative Case-marking found on the subject of SCs and non-finite clauses which (as will be demonstrated below) occur in positions where Case-licensing of any other kind seems not to be available to the subject. There are at least two contexts in which McCloskey and Sells do not assume default Case for the SC subject: firstly, when the SC is complement to *tá*/be, as in the following:

(i) Bhi Seán_i [_{sc}tar meisce]
be(Past) Seán drunk
'Seán was drunk'

mean that subject Case-licensing in SCs will receive a more principled explanation but also that when, as is the case below, evidence is provided that the SC subject moves from its point of insertion to a higher position within the SC,³ there is independently motivated structure available into which it can be presumed to have moved. Fundamental to our account of subject Case-licensing in Irish SCs will be the claim that uninterpretable features (e.g Case) can either be checked in a standard checking configuration (i.e overtly, in a spec-head relation or non-overtly, via adjunction at LF of the formal features to an appropriate head) or eliminated via M-merger on the way to PF, as proposed in Adger (1996)a (following ideas in Bobaljik 1995 and Benmamoun 1995).

Before providing an overview of the Chapter as a whole, a few brief points must be made about word order in Irish: finite clauses are VSO, derived from underlying SVO by raising of the verb out of VP to Infl (see Chung & McCloskey 1987);⁴ in non-finite clauses the verb remains in situ, in the form of a verbal noun (VN)⁵ and the object is fronted to pre-

In (i) the subject moves for Case-licensing to canonical subject position of the finite clause, where it is Nominative Case (the Case only shows on third person pronouns - we return to this point in footnote 7 below). Secondly, in examples like (ii) below (from McCloskey and Sells 1988:163), in which the subject of the SC moves into the non-finite clause for Case-licensing:

- (ii) Níor mhaith liom [_{fin IP} PRO _i aL shamú [_{sc t_i} ag obair]]
 Neg good with-me her ptc imagine-VN ptc work-VN
 'I wouldn't like to imagine her working'

Here, the SC is complement to *shamú*/imagine, the main verb of a non-finite IP with an accusative Case to assign; the particle *aL* preceding this verb is associated with preposing of the non-finite clause object for Case-assignment.

³As noted in footnote 2 above, the subject can also raise to a higher position *outside* the SC. The position external to the SC is not the one referred to here.

⁴In the more recent literature Infl is assumed to be split, following Pollock (1989); accounts vary as to the exact position within it occupied by V, McCloskey (1996) taking this to be T, with the subject in [Spec, AgrP] below it, others proposing the reverse i.e V in Agr and the subject in [Spec, TP] below it (Guilfoyle 1994, Bobaljik and Carnie 1996). It has also been proposed (in Adger 1996a) that Infl might simply consist of a TP which dominates VP (i.e without an AgrP). This issue will be addressed in more detail in 4.5 below.

⁵Most verbs in Irish have a nominal form of this kind associated with them in the lexicon (there are also VNs with no associated finite forms e.g *caint*/talk, in most dialects). Since they are nominals they can decline like nouns and appear governed by determiners and numerals, as in the italicised words in the following examples (from McCloskey 1983):

- (i)a. Níl ach *imse* amháin ar an scéal
 is-not but tell(VN) one on the story
 'There is only one telling of the story'
 b. Ag éiri ní ba soiléire a bhí an *cruth*
 get(PROG)clearer COMP was the prove (VN)
 'It was getting clearer that the proof was'

verbal position yielding SOV (with the particle *a* directly preceding VN). In SCs, the predicate generally follows the subject:⁶ when this is verbal (e.g. the progressive marker *ag* followed by VN), therefore, the order is SVO (the VN and the direct object both remaining in situ).

The Chapter is structured as follows:

In Section 4.1 two main obstacles to our aim of accounting for subject Case-licensing in Irish SCs without invoking default Case are identified and briefly considered: i) the fact that there is no obvious Case-licenser available from outside; ii) the assumption in the literature generally that the SC is a bare lexical projection and therefore lacking the potential to Case-license a subject, independently, from within. The notion of a more transparent account is then introduced, in which the SC, at least when *ag* and *agus* are present, is not a bare lexical projection but rather, has an AspP functional layer.

In Section 4.2 a first step is taken towards providing evidence that some SCs are AspPs: it is argued that the progressive marker *ag* is not a verbal particle, as originally proposed in McCloskey (1983), but is inserted under Asp and takes a CFC (i.e. VP) complement, like the perfective marker *tar éis*, already located under Asp in Carnie (1995). Support is drawn from Stenson and Norwood (1975) and from Ramchand (1996), who analyses the SG counterpart to *ag* as Asp.

In Section 4.3 a distinction is first drawn between co-ordinating and subordinating instances of *agus*(and), leading to the proposal that the *agus* which introduces SCs is generally of the latter kind. The possibility that this *agus* might be (+/-finite) T (or C) is then rejected on the basis of evidence relating to the potential temporal interpretation of its SC complement (with particular reference to the theory of anaphoric tense in Enç (1987)) and on the basis of other syntactic properties of these SCs. Finally, it is proposed that the core meaning of *agus* is aspectual in character and similar to the proposed core meaning of the Asp head posited in English Absolutes in Chapter 2. Semantic and syntactic

⁶Two exceptions to this should be noted here: (i) in a construction analysed as 'predicate-raising' in Doherty (1996) (see subsection 2.2 below) the progressive verb phrase of a SC can appear in front of its subject; (ii) in 'Psych Predication' (see example (i), footnote 80), a nominal predicate appears in a position preceding its arguments.

parallels between the two constructions are identified leading to the conclusion that *agus*+SC adjuncts in Irish are also AspPs. Grounds for extending this analysis to *agus*+SC complements are also proposed.

In Section 4.4 underlying syntactic structures are proposed for *agus*+SC complements and adjuncts, in which *agus* is inserted under Asp and takes a CFC complement. Taking into account, among other factors, the potential of certain adverbials to intervene between the subject and predicate of these SCs, movement of *agus* from Asp to C is posited in two contexts: i) when the *agus*+SC phrase is an adjunct (to CP); ii) when the SC is negated by the complementiser *gan*, regardless of whether it is a complement or an adjunct.

In Section 4.5 an account of subject Case-licensing within the structures described in the previous section is proposed. It is argued that in *agus*+SC phrases (complements and adjuncts) the subject ‘M-merges’ with *agus*, thereby eliminating its D features. In AspP complements to a lexical category, whether the complement is headed by *ag* or *agus*, a subject is Case-licensed in a standard checking configuration in [Spec, AspP], via a tense feature on Asp of the kind already proposed for English Gerund Clauses in Chapter 3. Finally, it is argued that SCs without *ag* or *agus* are also AspPs.

Section 4.6 is the conclusion.

4.1 Default Case and the Distribution and Internal Structure of Irish Small Clauses

The main difficulty of accounting for subject Case-licensing in Irish SCs without resort to the notion of default Case is the fact that they occur in positions where there is no obvious Case-licenser available. In fact, Chung and McCloskey’s proposal of default Case (Chung and McCloskey 1987:177), reaffirmed in McCloskey (1991:272), is primarily based on the observation that SC subjects have accusative, rather than the expected

nominative Case;⁷ for them, therefore, the lack of an obvious Case-licenser is merely the back-drop to the claim that default Case applies, and not an issue directly addressed. In contrast to this, the key factor for us in determining how the SC subject is Case-licensed will not be the actual Case which appears but rather the potential which we hold exists for a more explanatory account; arguing that SCs are not bare lexical projections will be an important step in advancing that view.

To begin with it must be demonstrated that the distribution of SCs is such that Case-licensing from outside, for example via ECM, is not a likely possibility. This is illustrated below with reference to three main environments in which a SC occurs.

Firstly, there are SC complements to perception verbs (with a verbal or non-verbal predicate), as in (1)a&b below, or to the impersonal verb *tarlaigh*/happen (which takes a null expletive subject), as in (2):⁸

- (1) a. Ní fhaca mé ariamh [_{sc}an fear sin ag obair]
 Neg saw I ever man that prog(pte) workVN
 'I never saw that man working'
 b. Ní fhaca mé ariamh [_{sc}an fear sin ar a shuaimhneas]
 Neg saw I ever man that at his ease
 'I never saw that man at his ease'

- (2) Tharlaigh [_{sc}cuid mhór daoine ar meisce an la sin]
 Happened many people drunk that day
 'It happened that many people were drunk that day'

The fact that an adverb intervenes between matrix V and the embedded subject in (1)a&b

⁷A morphological distinction between nominative and accusative only occurs with pronouns and, moreover, only when these are third person e.g.

(i) *Singular*

Nom (masc): sé; Acc(masc) é

Nom (fem): sí; Acc(fem) í

(ii) *Plural*

Nom (masc): siad; Acc(masc) iad

Nom (fem): siad; Acc(fem) iad

⁸(1b) and (2) are from Chung & McCloskey (1987), their (11a) and (9b), respectively.

suggests that Case-licensing via a pre-LF ECM configuration is not a likely possibility here;⁹ it is also ruled out in (2), given Burzio's generalisation that a verb which lacks an external argument fails to assign accusative Case (Burzio 1986:178-179).¹⁰

Secondly, there are SC complements to certain adjectives e.g. *minic*/often (and *fada*/long, *gairid*/short, *túisce*/soon, *annamh*/rare and *gnáthach*/usual) as in (3)a&b below.¹¹

- (3) a. Ba mhinic [_{sc}Eoghan ag magadh fúm]
 Was often Owen prog (ptc) mock-VN me
 'Owen was often mocking me'
 b. Ba mhinic [_{sc}Eoghan sa teach]
 Was often Eoghan in the house
 'Owen was often in the house'

Since adjectives are not considered to be a Case-licensing category, it must be concluded that in these examples also the matrix predicate does not provide the necessary checking domain. Finally, SCs (introduced by *agus*) can occur adjoined to CP.¹²

- (4) a. Bhuail mé leis agus [_{sc}é ag dul abhaile]
 Met I him and he prog (ptc) go-VN home
 'I met him as he was going home'
 b. Bhuail mé leis agus [_{sc}é ar an bhealach 'na bhaile]
 Met I him and him on his way home
 'I met him as he was on his way home'

⁹In ECM environments in English, as already noted in Chapter 2, material intervening between matrix V and the subject blocks Case-licensing:

- (i) a. *John believes strongly Mary to be intelligent
 b. *John knows without a doubt the man to be guilty

¹⁰An exception to Burzio's Generalisation is identified in Chapter Five where it is claimed, following McCloskey and Sells (1988), that the accusative Case subject of three monoargumental (unaccusative) verbs (*tar*/come, *dull*/go and *bheith*/be) in a non-finite clause is assigned Case in exactly the same manner as the direct object of a transitive verb in a non-finite clause i.e. via the verbal particle α L. In other words the verb Case-licenses an internal argument in spite of the fact that it has no external argument. However, since in finite clauses the subject of the same verbs appears in nominative Case, it seems that the proposed exception to Burzio's generalisation is determined by some independent factor not applicable to the present example in which the relevant verb (*tharlaigh*) is finite. Moreover, the subject of a SC complement to an adjective could not be accounted for in terms of an exception to Burzio's generalisation and so the issue of Case for SC subjects would still remain largely unresolved.

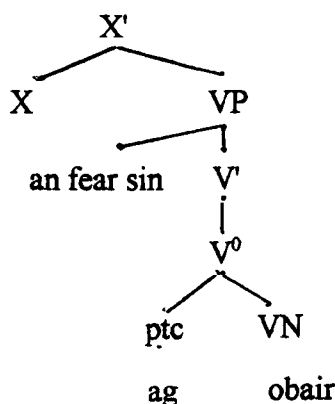
¹¹(3b) is from Chung & McCloskey (1987), their (12a).

¹²(4b) is (2a) from Chung and McCloskey (1987).

Here again the indicators are that Case-licensing via ECM is not available - *agus*, as noted above, is generally analysed as a conjunction and is unlikely to function as an ECM Case-licenser.

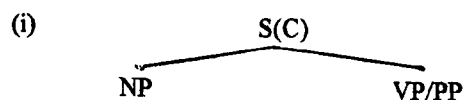
In concluding this section we show, in (5) below, the structure proposed for SCs in McCloskey (1991), based on the assumption that these are bare lexical projections.¹³

(5)



Note that the progressive marker *ag* is combined with VN under V°, ¹⁴ and that the head marked X can be realised as a verb (as in (1a&b) and (2) above), an adjective (as in (3a&b)), or *agus* (as in (4a&b)). In the next two sections we will argue, contra the above, that *ag* and *agus* respectively head their own functional projections (AspP). Since *ag* is an undisputed marker of Aspect in the language (note also that Scottish Gaelic *ag* has been located under Asp in Adger 1996b and Ramchand 1996), the claim that it is inserted under Asp is relatively unsurprising; however, the view that *agus* is also Asp-generated constitutes a considerable challenge to previous assumptions.

¹³It differs from the one proposed in Chung and McCloskey (1987), illustrated below, only in that the SC label of the original is replaced by a VP node in (5), in line with the Internal Subject hypothesis:



¹⁴The assumption is that Irish has a class of productive morphological rules which construct various kinds of 'non-finite' verb forms from VNs (following proposals in McCloskey 1980a). The non-finite verb in (5) therefore is *ag*+VN (See also Chapter 5, section 2).

4.2 *Ag* as Asp in Irish SCs

Before presenting our arguments in support of analysing *ag* as Asp, we illustrate how it marks a-telicity (progressive Aspect) in finite clauses, comparing this with a similar example marked telic (perfective) by *tar éis*; a preliminary syntactic structure (to be developed further below) is then assigned to both the a-telic and telic examples (4.2.1). A broad overview of approaches in the literature to the categorial analysis of *ag* and *tar éis* follows (i.e Stenson 1981, McCloskey 1983, Doherty 1996 and Carnie 1995), the key observation being that although *tar éis* has, more recently, been treated as Asp a similar analysis has not yet been applied to *ag* (4.2.2). Finally, it will be argued that both are inserted under Asp and select CFC (VP) complements (4.2.3).

4.2.1 Aspect-marking in Irish

The function of *ag* and *tar éis* as aspect markers in Irish main clauses is illustrated in (6)a&b below (interpreted as a-telic and telic, respectively), which can be contrasted with (6)c containing no overt Aspect marker:¹⁵

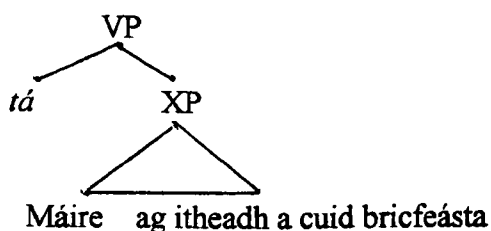
- (6) a. Tá Máire_i [_{sc} t_i **ag** itheadh a cuid bricfeásta]
is Mary prog(pte) eat(VN) her share breakfast
'Mary is eating her breakfast'
- b. Tá Máire_i [_{sc} t_i **tar éis** a cuid bricfeásta a itheadh]
is after her share breakfast AGR eat(VN)
'Mary has eaten her breakfast'
- c. D'ith Máire a cuid bricfeásta
ate Mary her share breakfast
'Mary ate her breakfast'

In assigning a preliminary syntactic structure to (6)a&b above (note the bracketing) we are

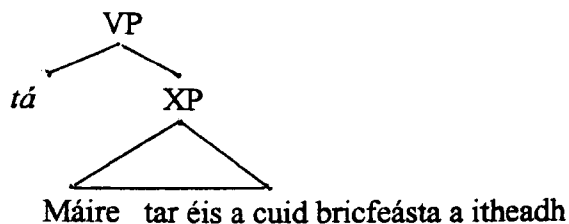
¹⁵Perfective Aspect in Irish is not expressed by an aspectual verb as it is in English, French, German and many other languages. Aspectual *tar éis* (or its equivalent *i ndiaidh*) has traditionally been analysed as a preposition and refers to a state resulting from an action in the immediate past (Green 1979) i.e it is a recent perfective. Green points out, however, that it is extending its semantic field outside the Gaeltacht (Irish speaking areas) and moving in the direction of a simple perfect like the standard English aspectual *have*.

assuming that McCloskey and Sells (1988) are correct in their claim that the defining property of the verb *tá*/be in Irish is that it takes a SC complement and a non-thematic subject. *Máire* in (6)a, therefore, moves from subject position of a SC with *ag itheadh a cuid bricfeásta* as predicate, to the subject position of the finite IP for Case, in the usual manner of finite clause subjects; similarly, in (6)b, *Máire* is the subject of a SC with *tar éis a cuid bricfeásta a itheadh* as predicate and raises again for Case to [Spec, IP].¹⁶ In the corresponding tree structures in (7)a&b below (note that TP is not yet merged with the VP headed by *tá*/be) the label SC is replaced by XP, our ultimate objective being to argue that the aspectual morphemes head the SCs so that X in both is Asp:

(7) a. a-telic



b. telic



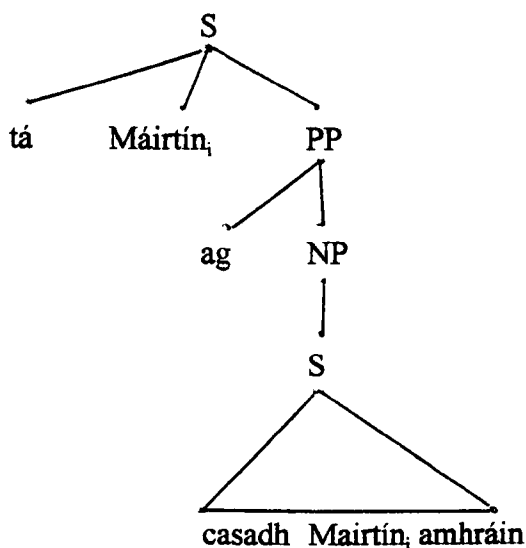
Consider, now, how *ag* and *tar éis*, respectively, have been classified in the literature.

¹⁶Notice that *tar éis*, unlike *ag*, is followed by a preposed direct object together with the verb form found in non-finite clauses i.e *aL+VN*. The 'L' following the particle *a* signifies that a following consonant is generally lenited e.g *dúnaidh* becomes *a dhúnaidh*.

4.2.2 Category of *ag* and *tar éis* in the literature

Stenson (1981) (who, contra more recent assumptions, takes the underlying structure of Irish to be VSO) treats *ag* as a preposition which, in examples like (8) below, selects an NP immediately dominating S:¹⁷

- (8) a. Tá Máirtín ag casadh amhráin
 is Martin at singing song
 'Martin is singing a song'
- b.



The subject of the embedded S gets deleted in the course of the derivation under identity with the matrix subject, via a rule of Equi-NP deletion. To some extent this structure is similar to the one which will be argued for here in so far as we will also assume *ag* takes a CFC complement. Notice that it differs significantly, in this respect, from the structure illustrated in (5) above, based on the analysis of SCs in McCloskey (1991), where *ag* (following McCloskey 1983) is treated as a particle combined with VN.¹⁸

¹⁷Apart from the progressive marker, *ag*, which occurs in examples like (8), there is also a simple preposition *ag/at* which takes a NP complement eg. *ag an doras/at the door*. Stenson attempts to unify the two in analysing the progressive marker as a preposition selecting an NP which in turn dominates S.

¹⁸In Chung and McCloskey (1987) and McCloskey and Sells (1988) it is also a verbal particle. In McCloskey (1996) small clauses containing *ag* are labelled *SC* (p.246) and no change in the original classification of *ag* as a verbal particle is indicated.

Turning now to Doherty (1996), although SCs containing *ag* in the position of complement to *tá/be* (like (8) above) are not discussed by Doherty, an account is indeed proposed of the same SCs occurring in adjunct position, as in (9) below (his (2a) with brackets and indices added):¹⁹

- (9) [_{sc} [Ag teacht 'na bhaile]; [_{sc} do Shíle t_i]]
 ptc(PROG) come-VN in home to Síle
 'As Síle was coming home'

Crucially, examples like the one in (9) are described as bare predicational structures without a containing inflectional shell.²⁰

Turning now very briefly to the category of *tar éis* as analysed in the literature, it must first be pointed out that, like *ag*, in addition to occurring before VN in structures like the one in (7)b, it also appears as a simple preposition, with an NP complement (in genitive Case):

- (10) Tar éis tamaill
 After time(Gen.)
 'After a while'

This has led to the earlier claim that the *tar éis* heading the complement of *tá* is also a

¹⁹This is the so called 'predicate-raising' construction referred to in footnote 6 above. The phrase *ag teacht 'na bhaile* (which starts out to the right of the subject *Síle* with which it forms a SC) is understood to have a tense feature. This is checked against matrix T when, as illustrated, the predicate adjoins to the SC it raises out of (note that *do* assigns default Case to the subject).

²⁰Doherty, unlike Chung and McCloskey (1987), suggests that SCs in complement position (e.g (1)-(4) above) are actually covert infinitives/(bare)IPs, on the grounds that like (bare)IPs they cannot occur in adjunct position (the SCs in (4) are treated as complements of *agus*). He proposes that infinitives/(bare)IPs do not appear as adjuncts because IP is a dependent category i.e either it appears as the complement of some head (usually C) or is the root node. A structure of the kind in (9), on the other hand, is in adjunct position i.e it does not have to occur as complement of some other category. This leads to the conclusion that the SC in predicate-raising constructions must be a bare lexical projection, as distinct from IP.

As the proposal that complement SCs are covert infinitives is touched on only briefly by Doherty it cannot be challenged in any great detail here. The following point, however, is worth noting: Doherty treats the SC in an *agus*+SC phrase as a covert infinitive on the grounds that it is a complement of *agus*. However, as evidence of the infinitival-like properties of certain SCs (namely, the ones in complement position) he cites the fact that they can be conjoined with a finite clause by *agus* (or *ach*). Clearly only one of these two arguments in support of treating certain SCs as IPs can be valid. If the SC is actually a complement of *agus* then the co-ordination argument does not stand up and vice versa. In other words *agus* is either a co-ordinator or a subordinator in any one structure. It cannot be both simultaneously.

preposition (e.g McCloskey 1979, Stenson 1981). McCloskey proposed the following phrase-structure rule to account for the fact that, in structures like (7)b, the complement of *tar éis* has the form of a 'non-finite' clause:

(11) PP → Prep[S_{-FIN}]

More recently, Carnie (1995) locates it under Asp, with *tá* as a light verb directly dominating AspP and generating a subject in its specifier; the subject then raises for Case to canonical subject position in finite clauses (i.e [Spec,AgrP], on his account).

To sum up at this point on the categorial analysis of the aspectual morphemes in the literature outlined above: *tar éis* and *ag* are treated as categorially identical only in Stenson (1981) i.e as prepositions. Apart from this, the most prominent view of *ag* has been that it is a verbal particle, while *tar éis* has been treated either as a preposition or as Asp. We turn now to our arguments in support of analysing both as Asp heads taking CFC complements.

4.2.3 *Ag* belongs to the same syntactic category as *tar éis* and like *tar éis* dominates a CFC

One reason for proposing that *ag* belongs to the same syntactic category as *tar éis* (apart from their common semantic function as aspect markers), is that both appear as the first element of the predicate in a SC selected by *tá*, as illustrated in (7)a&b above.

The main obstacle to treating them as categorially identical is the fact that *ag* always occurs adjacent to VN (with the object of a transitive VN, as in (7)a, remaining in situ),²¹ while an object argument (preposed from the in situ position) can intervene between *tar éis* and a transitive VN. The restricted distribution of *ag* is illustrated in (12)a below,

²¹In formal registers the direct object in this position can have genitive Case.

where an argument interposed between *ag* and VN is ungrammatical, while *tar éis* can appear either with an object argument interposed between it and VN, as in (7)b above, or adjacent to VN as in (12)b below:

- (12) a. *Tá Máire ag a cuid bricfeásta (a) itheadh
 is Mary prog(pte) her share breakfast PTC eat-VN
 'Mary is eating her breakfast'
 b. Tá Seán tar éis dul abhaile
 Is Sean after go-VN home
 'Sean has gone home'

What needs to be decided here is whether *ag* must be adjacent to VN because it is sublexical i.e. combined with VN under VN^o (which would explain why no intervening XP slot is available for an object argument to move into), or whether adjacency to VN is determined by other factors. We take the latter view, proposing instead that the position of the object argument i.e. preposed versus in situ, correlates with distinct aspectual interpretations of the event and the way the object argument participates in it. The possibility that the word order difference can be explained in terms of distinct syntactic analyses of the two aspectual morphemes is therefore rejected. In defending this approach, below, we draw first on arguments presented in Stenson and Norwood (1975) on the relationship between word order and Aspect in Irish (4.2.3.1), and then on proposals in Ramchand (1996) with regard to the same relationship in SG which extends naturally to Irish (4.2.3.2).

4.2.3.1 Stenson and Norville (1975)

Stenson and Norville propose that, from a semantic perspective, complements of the type VN+NP ((6)a) are viewed as processes and imply simultaneity of action between matrix and complement clause, while complements of the type NP+VN ((6)b) are viewed as entities. This correspondence between aspectual interpretation and word order is illustrated in the following pair, which are adequately translated by the same English

sentence but which are not, in fact, interpreted identically:²²

- (13) a. Tá ag éirí leis [ag foghlaim Fraincis]
is ptc(PROG) succeed-VN with-him ptc(PROG) learn-VN French
b. Tá ag éirí leis [Fraincis a fhoghlaim]
is ptc(PROG) succeed-VN with him French ptc learn-VN
'He is successfully learning French'

Stenson and Norville observe that in (13)a the focus is on the learning process itself, which is ongoing at the time of the speech act, whereas in (13)b the projected goal i.e knowing French or having learned French, is emphasised. Substituting *teip/fail* for *éirí/succeed* yields a different result in terms of possible complement types, with the VN+NP word order, associated with processes, excluded in such cases:²³

- (14) a. *Tá sé ag teipeadh air [ag foghlaim fraincis]
is he ptc(PROG) fail-VN on-him ptc(PROG) learn-VN French
b. Tá sé ag teipeadh air [Fraincis a fhoghlaim]
is he ptc(PROG) fail-VN on-him French ptc learn-VN
'He is failing to learn French'

They propose that (14)a is ungrammatical because the term *fail* implies that learning French is not accomplished - consequently, no accomplishment of learning can be considered to be in progress i.e the notions of actually learning and failure are incompatible if juxtaposed as simultaneous processes.

The claim that VN+NP word order implies simultaneity of action (in matrix and complement clauses) is supported by the fact that complements of perception verbs can never be of type NP+VN (the word order associated with entities):²⁴

- (15) a. Bhí muid ag éisteacht le Seán ag casadh amhráin
were we ptc(PROG) listen-VN to Sean ptc(PROG) sing-VN song-Gen
'We were listening to Sean singing a song'

²²Their (14)a&b.

²³Their (15)a&b.

²⁴Their (10)c&d.

- b. *Bhí muid ag éisteacht le Sean amhrán a chasadh
 were we ptc(PROG) listen-VN to Sean song ptc sing-VN
 'We were listening to Sean singing a song'

Similarly, *tosaigh*/begin and *stad*/stop also take VN+NP complements only, the onset or conclusion of an action being interpreted as simultaneous with that action.²⁵

- (16) a. Thosaigh Síle ag greadadh an leinbh
 began Síle ptc(PROG) spank-VN the baby-Gen.
 'Síle began to spank the baby'
 b. Níor stad siad riamh ag moladh a chuid oibre
 Not stop they ever ptc(PROG) praise-VN his portion work
 'They never stopped praising his work'

While simultaneity of action is identified as a property of VN+NP complements, those viewed as entities (i.e NP+VN) are said, in the general case,²⁶ to be without any implication that the activity denoted by the verbal noun will or did take place, as illustrated in the following.²⁷

- (17) a. Teastaíonn uaidh [toil Dé a dhéanamh]
 pleases him will God ptc do-VN
 'He wants to do the will of God'
 b. D'aontaigh sí [gan an cíos a mheadú arís]
 agreed she without the rent ptc raise again
 'She agreed not to raise the rent again'

The distinction between process and entity is particularly significant when it comes to the verb *lean*/continue. Although *lean*/continue, in terms of its aspectual properties, falls naturally into the same class as verbs of starting and stopping, unlike the latter, it can take either a VN+NP or an NP+VN type complement. Crucially, however, the two distinct word orders correspond to two different interpretations.²⁸

²⁵Their (11)a&b.

²⁶NP+VN complements of *tar éis*, and of verbs like *eiri*/succeed and *teip/fail*(see (7b),(13b) and (14b)), are examples of cases where there is an assertion with regard to whether or not the activity denoted by VN did or will take place. The relevant point is that the NP+VN word order is not obligatorily associated with an assertion of this kind, while simultaneity of action is obligatorily associated with the VN+NP complement type.

²⁷Their (6)f&e.

²⁸Their (12)a&b.

- (18) a. Lean leis ag bualadh an mná
 continued with-him ptc(PROG) beat-VN the woman-gen
 'He continued beating the woman'
- b. Lean leis an bhean a bhualadh
 continued with-him the woman ptc beat-VN
 'He continued beating the woman'

(18)a has durative meaning, where the beating is understood to continue for a period of time, but (18)b is more likely to be interpreted as habitual, meaning he continued to beat the woman from time to time.

To sum up on Stenson & Norville's approach: VN+NP complements are necessarily viewed as processes, occurring simultaneously to the matrix predicate, while NP+VN complements focus on the action of the VN as an entity, either considering it as a goal to be accomplished or a series of discrete events, as in habituais. These observations support the claim here that object-preposing in constructions with *ag* cannot be ruled out simply by analysing *ag* as a verbal particle. The prohibition on a lexical NP intervening between *ag* and VN is more appropriately accounted for as a conflict between the semantic interpretation associated with the word order NP+VN (i.e as an entity) and the progressive meaning of *ag*.

We review, next, the analysis in Ramchand (1996) of the same word order variation in SG. It should be pointed out in advance that although the theory of aspectual theta-roles proposed by Ramchand and outlined below will not be adopted in our account of Irish examples like (6)a&b above, the differences in terms of interpretation she observes between a preposed and an in situ direct object still hold, regardless of the theory employed to account for them. The notion of aspectual theta-roles will be explained, therefore, primarily as a necessary step towards appreciating the different properties of preposed and in situ direct objects observed by Ramchand.

4.2.3.2 Ramchand (1996)

The morphological markers of Aspect in Irish and SG are very similar - SG imperfective *a'* can be compared with the Irish progressive marker *ag*, and SG *indeidh/after* with Irish *indiaidh* - not only phonologically, but more significantly here, in terms of their meaning and distribution. On Ramchand's account of Aspect in SG an AspP is posited above VP - both in finite clauses and in clauses where V is a verbal-noun (i.e non-finite clauses). In examples like the following the Asp head is overtly realised as *ag* and *air*, respectively (these are the SG equivalents to structures like (6)a&b above).^{29,30}

- (19) a. Tha Calum *ag* ithe an ubhail³¹
 is Calum *ag* eat-VN the apple-gen
 'Calum is eating the apple'
 b. Tha Calum *air* an t-ubhal a ithe
 is Calum *air* the apple-dir ptc eat-VN
 'Calum has eaten the apple'

Ag in (19)a is described as an a-telic/unbounded Asp head, and *air* in (19)b as its +telic/bounded counterpart.³² These not only determine whether the event referred to is unbounded or bounded,³³ but also the order of the arguments which participate in the event

²⁹Her examples (37)&(33), respectively, in Chapter 5 (adapted).

³⁰The Asp head can also be realised as the prospective particle *gus*, which does not concern us here.

³¹*Ag* occurs as *a'* when followed by a consonant e.g. *a' fuireach* (*staying*).

³²See footnote 3 below re *non-overt* +telic/bounded Asp heads in SG.

³³In this respect SG is understood to differ from languages like English where the aspectual interpretation of the event is determined, not by the Asp head, but by the composition of V and its arguments. In other words, the Asp head in English is not independently specified for boundedness (in English, therefore, V moves to Asp to check its Asp features, while the VN in SG does not because it does not have Asp features to be checked). In support of this view Ramchand notes that the aspectual classification of a verb in English can vary with the type of NP object, or with the lexical verbal item itself. For example, the English verb *eat*, with a quantised NP object, in (i)a below, is obligatorily interpreted as +bounded, while in (i)b, where the object is non-quantised, only an unbounded interpretation is available:

- (i) a. John ate three apples in an hour/?for hours
 b. John ate apples ?in an hour/for hours

In SG, by contrast, past simple tenses always have a +bounded reading, regardless of whether the NP object is quantised or not. This is illustrated below, where the question 'for how long' is seen to be infelicitous when combined with a verb in the past simple tense, whether the object is quantised, as in (ii)a, or unquantised, as in (ii) b:

- (ii) a. ?De cho fada's a dh'ol Calum an cupa ti

i.e VN+NP versus NP+VN .

The way in which the Asp head determines word order is related to the claim that it has Aspectual theta-roles to assign.³⁴ *Ag* is described as an intransitive particle which therefore only assigns an external aspectual role, while *air* is assumed to be transitive and so assigns both an external and an internal role.³⁵ The syntactic trees illustrating the two possibilities (corresponding to (19)a&b above) are as follows:

How long did Calum drink the cup of tea for?
b. ?De cho fada's a dh'ol Calum leann
How long did Calum drink beer for?

Although in finite clauses the aspectual interpretation of the event as +/-bounded is not determined by the composition of V and its arguments, the verb itself is described as 'inherently aspectual' which means that unlike VNs it does move to Asp to check its +bounded feature (note that this Asp head is effectively the non-overt counterpart to *tar éis*).

³⁴In this respect also, SG is understood to differ from languages like English in which the Asp head does not assign aspectual theta-roles.

³⁵The internal aspectual role can be any one of the following three types: patient₁, patient₂, patient₃. The first, Patient₁, is the role assigned in (19)b. It occurs with creation and consumption type verbs like *eat* and *write*.

The second, patient₂, occurs with verbs of motion (the relevant property of the object, here, is its location):

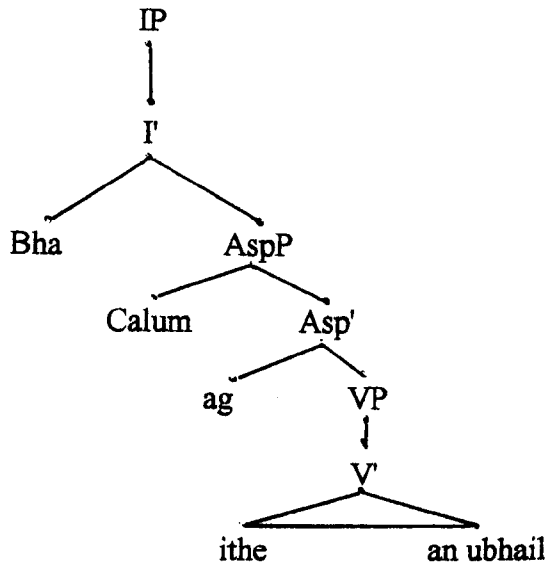
(i) Tha Calum air an car a' sparradh
is Calum *air* the car ptc push-VN
'Calum has pushed the car'

The third, patient₃, occurs with change of state verbs:

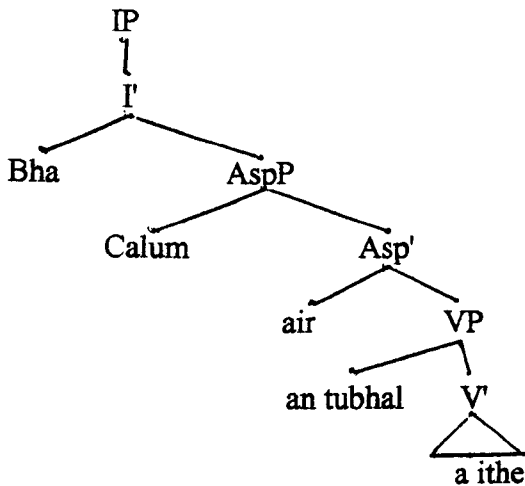
(ii) Tha Calum air an uinneag a bhriseadh
is Calum *air* the window ptc break-VN
'Calum has broken the window'

See Ramchand (1996:101/102) for a full account of the distinction between the three roles exemplified above. (i) and (ii) are adaptations of her (28) &(27) (p.104), respectively.

(20)a.



b.



Notice that the arguments which are assigned aspectual roles are either in [Spec, AspP] or in the specifier of the projection immediately below AspP (i.e. [Spec, VP]). The in situ object occurring as sister to V, on the other hand, does not receive a role from Asp.³⁶ The fact that the word order NP+VN occurs with *air* but not with *ag*, therefore, is explained by Ramchand, not by positing two different types of syntactic entity (e.g. a head versus a verbal particle, as assumed for Irish in McCloskey 1979 and McClosky 1983, respectively)

³⁶The in situ object is referred to as a predicate modifier. This means that SG VNs are actually intransitive syntactically, but transitive at the level of lexical conceptual structure (LCS). It should be pointed out that the notion of verb is considered by Ramchand to involve two logically separate constituents: i) the substantive core, which contributes the LCS i.e. a description of the semantic relationship between the participants; ii) the aspectual head, which contributes the aspectual argument structure.

but rather by attributing the property +/- transitive to the single Asp head which in turn determines whether an argument must appear in [Spec, VP] to receive the internal aspectual role.

We turn now to the most significant aspect of the above analysis for our purposes, namely, the examination it offers of the difference in interpretation between a preposed and an in situ direct object.

An internal argument which is assigned an aspectual theta-role is understood to be linked to the event denoted by the verbal-noun clause in a different way from one like the in situ object which is not assigned one. To understand how the linking functions it must first be noted that events, on this approach, are associated with a 'time chain' or temporal trace (e) of the kind proposed in Krifka (1989):

$$(21) \quad \mathcal{T}(e) = t_0, t_1, \dots, t_{n-1}, t_n$$

Recall from Chapter 1 that (21) represents the temporal duration of the event by showing the individual conceptual moments of the event in correct temporal order. In the case of examples like (19)b the chain contains a set terminal point (STP), reflecting the telicity of the event, while in (19)a there is no STP, since the event is a-telic. When an internal aspectual role is assigned, there is a mapping from this chain onto some property of the object argument, such that each conceptual moment in the time chain corresponds to a point in a transition from one state to another, in the object argument. For example, in (19)b the change in the apple from being intact to being completely eaten defines the temporal path of the event (once the path is defined the external argument is then mapped onto that path via some participancy function e.g as 'initiator' in this particular example).

In the case of the in situ object in (19)a no internal aspectual role is assigned because its relationship to the event associated with VN is not appropriate i.e the precise relationship between the time chain of the event and the object is open and vague by comparison with

the same relationship in (19)b. The contrast becomes clearer if we substitute 'the apples' for 'the apple' in both examples: a scenario can then be imagined for (19)a where Calum is on his first apple and so the others are not in any sense 'affected' arguments, while no such possibility arises for (19)b, where all the apples must have the property of being *eaten*. The relationship between the time structure of the event and the object in (19)a is therefore much looser than it is in (19)b.

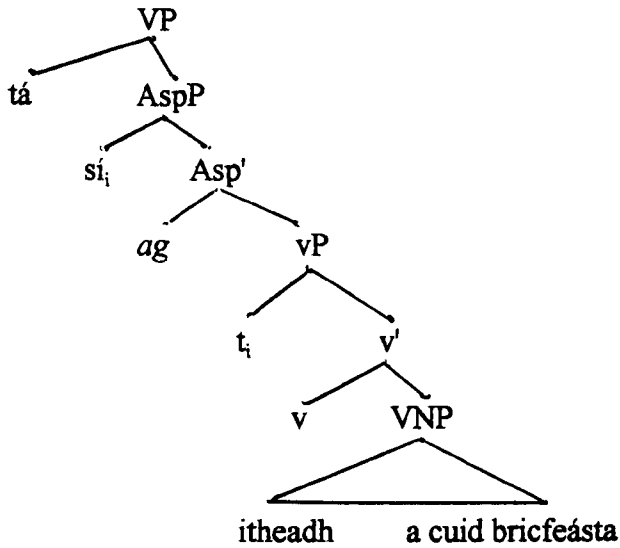
What is important about the above analysis in the present context is that it makes a similar observation with regard to the relationship between aspectual interpretation and word order in SG as that noted in Stenson and Norville (1975) for Irish, although Ramchand's theory is considerably more refined and expansive than Stenson and Norville's. The common observation is that when a direct object is preposed (regardless of whether or not *tar éis* is present) the event it participates in is interpreted differently from when it remains in situ.³⁷ Stenson and Norville capture this fact by describing the NP+VN phrase as an entity and VN+NP as a process. Ramchand, on the other hand, distinguishes between an event which is bounded (with the object receiving an aspectual role from Asp) and one which is unbounded (with no internal aspectual role assigned). In both cases the NP+VN order is attributed to a specific interpretation which is incompatible with the presence of *ag*.

In view of Stenson and Norville's observations, and bearing in mind that Irish *ag* is the counterpart of SG *ag* in the contexts discussed above, the most plausible way to analyse Irish *ag* is, like *tar éis*, as an Asp head taking a CFC (i.e VP) complement.

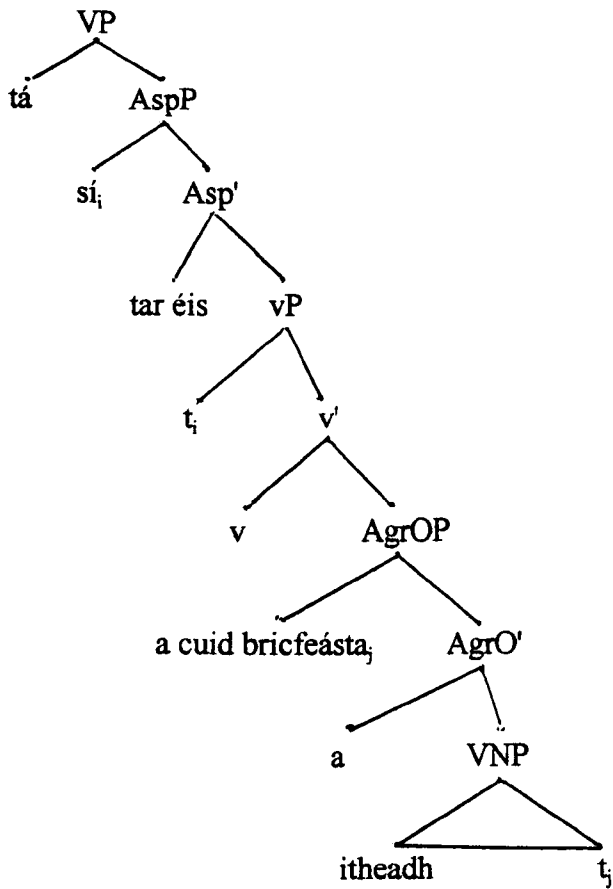
We conclude this section by proposing our own structures, illustrated below, for Irish examples like (6)a&b - the main differences between these and Ramchand's for SG (see (20a&b) above) are the position into which the subject is inserted in both examples, and the location and source of Case-licensing for the preposed direct object in the second:

³⁷Recall that the correspondence between a +telic head and a preposed object is evident not only when it is overtly realised as *air* but also in finite clauses which Ramchand analyses as uniformly denoting bounded events, with the direct object, again, in [Spec, VP].

(22)a. a-telic



b. telic



In keeping with the fact that we do not adopt the notion of aspectual theta-roles, the subject in each of the above originates, not in [Spec, AspP], but [Spec, vP], the position which

external arguments are generally assumed to occupy (e.g. Koopman and Sportiche 1988, 1991). In addition, while Ramchand locates the object in [Spec, VP], where it can be Case-licensed and assigned an aspectual theta-role by Asp, the VP in (22)b above is split and an AgrOP is projected between the two layers (cf. Carnie 1995, reviewed below) to Case-license the object in its specifier.³⁸

To sum up, in this section we have addressed the first part of the claim that there are two morphological indicators of the presence of AspP in Irish SCs i.e. *ag* and *agus*. In the next section we come to our analysis of *agus* (before a SC) as Asp-generated.

4.3 *Agus* as Asp in Irish SCs

As noted in the introduction, *agus* is typically translated into English as *and* and can be treated in the general case simply as a co-ordinating conjunction, on a par with its English counterpart. However, examples like the following, repeated from above, in which *agus* precedes a SC, pose a problem for the assumption that all instances of *agus* are categorially identical:

- (23) a. Bhuail mé leis **agus** [é ar an bhealach 'na bhaile]
 Met I him and he on his way home
 'I met him as he was on his way home'
- b. Bhí mé lán sasta **agus** [Seán ina dhochtúir i Meiriceá]
 was I very pleased and Sean in his doctor in America
 'I was very pleased when/that Sean was a doctor in America'

An initial observation alone reveals that the SC is not merely conjoined to the main clause, but rather, modifies it. That a uniform analysis of *agus* is not adequate, in view of examples like the above, has been acknowledged to a limited extent in the literature. For example, although Chung and McCloskey (1987) (also Doherty 1996) simply use the term 'co-ordinating conjunction' to refer to *agus* in structures like (23)a&b, they suggest in a

³⁸See Chapter Five for a full account of the structure of non-finite clauses.

footnote (p.189, fn 14) that some *agus*+SC phrases might in fact be predicates. The need for a distinction between different instances of *agus* has also been recognised, again to a limited extent, in Boyle (1973) and O'Siadhail (1989), both of whom use the term 'subordinating' to refer to the *agus* in structures like (23)a&b. However, what is lacking there also is any attempt to express the difference in terms of syntactic category. Greater accuracy in identifying the category of *agus* before SCs is therefore called for.

We begin, below, by distinguishing between co-ordinating and subordinating *agus*, arguing that SC *agus* is typically of the latter kind (4.3.1). The possibility that *agus* before a SC might be (+/-finite) T (or C) is then addressed and counter-arguments, focussing in particular on *agus* before SC adjuncts, are presented (4.3.2). Finally, the case for an analysis of *agus* as Asp before a SC adjunct is presented, and grounds for extending this approach to the *agus* before SC complements of *tá*/be are suggested (4.3.3).

4.3.1 *Agus* before a SC: against a co-ordinating conjunction analysis

Co-ordinating conjunctions are typically associated with a number of properties not shared by the *agus* occurring in (23)a&b above. The first of these, already mentioned briefly above, is that the elements they conjoin must have the same syntactic function. Thus, (24)a&b versus (25)a&b, below, show that while conjoined finite IPs in English and Irish are predictably grammatical (both are main statements), an NP conjoined with an adverbial phrase is not:

- (24) a. John fell *and* he started to laugh
 b. Thit Seán *agus* thosnaigh se ag gáire
 Fell Seán *and* began he prog(ptc) laugh-VN
 'Seán fell and he began to laugh'
- (25) a. *John *and* quickly
 b. *Seán *agus* go tapaidh
 'Seán *and* quickly'

That common syntactic function rather than common category is a fundamental

prerequisite in the licensing of co-ordination is illustrated in (26) below, where the predicates AP and PP, conjoined, yield a grammatical result:³⁹

- (26) a. John is [_{AP} tired] and [_{PP} in a hurry]
 b. Tá Seán [_{AP}tuirseach] agus [_{PP} ar meisce]
 is Seán 'tired and drunk'

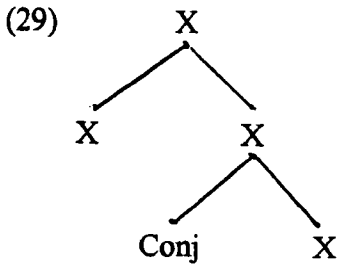
Recall, now, that the SCs following the proposed aspectual *agus* in (23)a&b above are temporal and causal adverbials, respectively i.e their function, in contrast to that of the main clause, is to modify.

A second property of a typical co-ordinating conjunction is that it cannot move with its conjunct (i.e the one following it in a language like English) to sentence initial position.

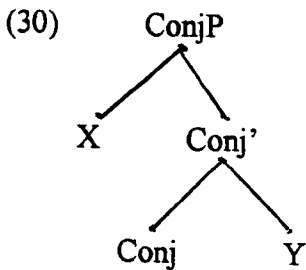
- (27) a. John opened the door and Mary shut the window
 b. *And Mary shut the window, John opened the door
- (28) a. D'oscail Seán an doras agus dhún Ian an fuinneog
 opened Seán the door and closed Ian the window
 'Seán opened the door and Ian closed the window'
 b. *agus dhún Ian an fuinneog, d'oscail Seán an doras
 and closed Ian the window, opened Seán the door
 'and Ian closed the window, Seán opened the door'

This is in spite of the fact that the conjunction and the second conjunct are generally assumed in the literature to form a constituent. For example, Ross (1967) and Jackendoff (1977) treat co-ordinate structures as distinctive and separate from other structures in a language. They assume that the conjuncts and the co-ordinate node are identical and that the conjunction forms a constituent with the second conjunct, as illustrated below:

³⁹The grammaticality of co-ordinations like (26) in which the conjoined phrases are categorially distinct has been variously accounted for in the literature. For example, Borsley (1994) (following Gazdar et al 1985 and Sag et al 1985) assumes that co-ordinations in which the conjuncts are not categorially identical can be explained as a consequence of feature-sharing between the conjuncts and the co-ordinate structure. When the co-ordinate structure is in a position where it need not have any specific categorial features (e.g John is -) conjuncts can differ in their categorial status (e.g *John is a linguist and proud of it* versus * *John met a linguist and proud of it*). Otherwise they must be categorially identical. Bowers (1993), on the other hand, who takes the view that propositions are universally projected as PrPs (see Chapter 2, section 4.3), would treat (26) as an instance of conjoined PrPs with the subject moving from [Spec, PrP] of each conjunct for Case-licensing (ATB extraction).



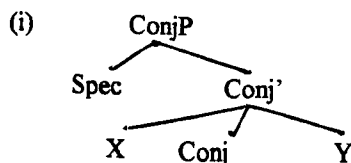
Larson (1990), Johannessen (1993) and Kayne (1993), in contrast to this, have analyzed co-ordination structures as an instantiation of the basic X-bar schema, as in (30) below, showing the conjunction and the second conjunct again forming a constituent.



Borsley (1994) argues against treating co-ordinate structures as an instantiation of the basic X-bar schema. Although he does not actually propose a structure of his own he nevertheless assumes that the conjunction and the conjunct form a constituent.⁴⁰

Notice, now, that the proposed aspectual *agus* can either follow the main clause and precede the SC only, as in (23)a&b or, as illustrated below, it can precede both the SC and the main clause, thus behaving more like a traditional temporal/causal subordinating conjunction.⁴¹

⁴⁰Rothstein (1991), like Larson, Johannessen and Kayne, also adopts an X-bar structure for co-ordination. However, in the structure she proposes, illustrated in (i) below, the conjunction does not form a constituent with the conjunct:



⁴¹Similar constructions to the Irish *agus*+SC example in (23)a&b do occasionally occur in English, though their acceptability may vary depending on the speaker. Boyle (1973:224) offers the following (his (18)):

- (31) a. Agus é ar an bhealach ina 'bhaile, bhuaile mé leis
and he on his way home met I him
'As he was on his way home I met him'
b. Agus Seán ina dhochtúir i Meiriceá bhí me lán sásta
And Sean in his doctor in America was I full pleased
'When/as Sean was a doctor in America I was very pleased'

Thirdly, a simple co-ordinating conjunction, unlike *agus* in (23)a&b, bears minimal meaning, as can be demonstrated by the fact that omitting it leaves the interpretation of the original sentence completely intact:

- (32) a. John entered *and* he began to talk
b. John entered. He began to talk.
- (33) a. Tháinig Seán isteach *agus* thosnaigh sé ag caint
Came Seán in *and* began he prog(pte) talk-VN
'Seán came in and he began to talk'
b. Tháinig Seán isteach. Thosnaigh sé ag caint
'Seán came in. He began to talk'.

In contrast to this, *agus* before a SC can have temporal/causal meaning, as the translations of (23)a&b above make clear.⁴²

Finally, with simple co-ordination the conjuncts can be reversed without any loss of grammaticality:

-
- (i) He married a shiksa and him (such) a nice Jewish boy

Note, however, that preposing of the *and* phrase is not possible:

- (ii) *And him (such) a nice Jewish boy, he married a shiksa

In a parallel sentence in Irish preposing is possible (Boyle's examples (19)&(21) respectively):

- (iii) a. Phós sé Albánach buí [agus é san IRA]
married he Scot yellow and him in-the IRA
'He married an orange girl while in the IRA'
b. [Agus é san IRA] phós sé Albánach buí
And him in-the IRA married he Scot yellow
'While in the IRA he married an orange girl'

⁴²Other interpretations of *agus*, in addition to the causal and temporal ones, will be identified in subsection 3.3.

- (34) a. Chonaic mé Seán agus Ian
 saw I Seán agus Ian
 'I saw Seán and Ian'
 b. Chonaic mé Ian agus Seán'
 Saw I Ian and Seán
 'I saw Ian and Seán'

It should be noted that in cases of co-ordinated main clauses like the following reversing the conjuncts can actually affect interpretation, but crucially, not the grammaticality, of the sentence:

- (35) a. John opened the door and Mary shut the window
 b. Mary shut the window and John opened the door
- (36) a. D'oscail Seán an doras agus dhún Ian an fuinneog
 opened Seán the door and closed Ian the window
 b. Dhún Ian an fuinneog agus d'oscail Seán an doras
 'Ian closed the window and Seán opened the door'

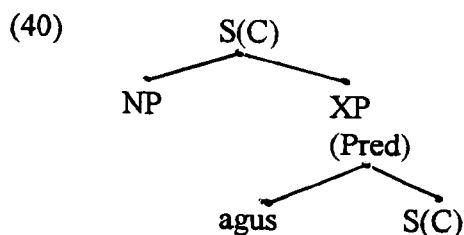
In (35)a and (36)a there may be an implication that the event referred to in the second conjunct chronologically follows the one in the first. Consequently, reversing the conjuncts (as in (35)b and (36)b) affects the meaning since this ordering is also reversed. However, there clearly are contexts in which (35)a and (36)a might be uttered without this implication (e.g. if someone were trying to establish who was responsible for which event and this sentence were produced to resolve the issue) in which case reversing the conjuncts affects neither meaning nor grammaticality. Notice now that reversing the 'conjuncts' in (23)a& b is completely unacceptable, regardless of context:

- (37) a. Bhuail mé leis agus [é ar an bhealach 'na bhaile]
 Met I him and he on his way home
 'I met him as he was on his way home'
 b. *é ar an bhealach 'na bhaile agus bhuail mé leis
 he on his way home and met I him
- (38) a. Bhí mé lán sasta agus [Seán ina dhochtúir i Meiriceá]
 was I very pleased and Sean in his doctor in America
 'I was very pleased when/that Sean was a doctor in America'
 b. *Seán ina dhochtúir i Meiriceá agus bhí mé lán sasta

The four points of contrast identified above between *agus* in standard co-ordination contexts and *agus* before a SC all relate specifically to examples of the kind in (23)a&b. However, as mentioned above, there are also contexts in which an *agus*+SC phrase can arguably function as a predicate. Chung & McCloskey (1987) provide the following example in which *agus* is combined with a SC to form the predicate of a higher SC (which in turn is complement to *tá/be*):

- (39) Bhi sí agus [gan focal aisti]
 was she and not a word from her
 'She was completely silent'

The first SC referred to is the lexical projection in brackets. The predicate phrase consisting of *agus*+SC forms the second SC when it is applied to the subject of the sentence as a whole (*sí*). (40) below gives the structure Chung and McCloskey (and we also) assume for examples of this kind.⁴³



The existence of examples like (39) suggests strongly that the categorial status of *agus* before a SC should be reconsidered since there can be little doubt that *agus* here is not simply a co-ordinating conjunction. The possibility that the elements preceding it might constitute a first conjunct of, say, coordinated clauses, hardly arises since they do not even form a constituent. Moreover, some phrase directly preceding *agus* (even if this did not include all preceding elements), would have to have the function of making a statement (like the SC), which is clearly not the case.⁴⁴

⁴³What the node SC would be in (40), given the revisions in McCloskey (1991) (see (5) above), remains an open question, since *agus* is described simply as a co-ordinating conjunction.

⁴⁴Recall that the first property of a coordinating conjunction identified in 4.3.1 is that it combines elements with the same syntactic function e.g. two main clauses, as in (2a&b) above, but not an NP and an adverbial, as in (25a&b)).

Before proceeding to our alternative analysis of SC *agus* in (23)a&b (and ultimately of SC *agus* in (39) also) it should be noted that there are at least some instances of *agus* preceding a SC which, on the basis of the criteria adopted above for identifying co-ordinating *agus*, do indeed seem to fall into this category. The following example from Chung and McCloskey (1987:189:ftn14) is a case in point:

- (41) Bhí creideamh láidir ann agus é an-ghéilliúil do phisreóga
 was faith strong in him and him very susceptible to superstitions
 He had a strong faith and he was very susceptible to superstitions

Notice that the *agus* phrase cannot be fronted, as illustrated in (42) below, and that *agus* itself seems to have little if any semantic content (at least not on a par with the temporal and causal meaning of the *agus* in (23)a&b above):

- (42) **Agus é an-ghéilliúil do phisreóga, bhí creideamh láidir ann*
 and him very susceptible to superstitions was faith strong in-him
 'He was very susceptible to superstitions and he had a strong faith'

If we assume that co-ordinated phrases have the structure illustrated in (30) above (i.e. as in Larson 1990, Johannessen 1993 and Kayne 1993), and that the *agus* in (40) is in fact a simple co-ordinating conjunction (i.e. it is not inserted under Asp) then the ungrammaticality of (42) can be explained as follows: the head of ConjP has a strong feature requiring that its specifier be filled at Spellout; in (42) *agus* is under Conj and the clause following it is its complement; [Spec, ConjP] is empty; the strong feature on Conj, therefore fails to be checked overtly and so the derivation crashes. Consider, finally, the fact that the proposed conjuncts in (41), unlike conjuncts generally, cannot be reversed:

- (43) **é an-ghéilliúil do phisreóga agus bhí creideamh láidir ann*

As will become evident in due course, the subject Case-licensing mechanism which will ultimately be adopted here to account for examples with aspectual *agus* is easily extended to such cases.

Returning now to our discussion of (23)a&b above: the obvious difference between the SCs

in (37) and (38) which cannot appear as first conjuncts, and each of the conjoined phrases in (36)a, either of which can appear first, is that the latter are finite clauses. Since +finite T is a subject Case-licenser, the fact that (37)b and (38)b are ungrammatical is most likely to be due to the failure of Subject Case-licensing in the first conjunct which lacks finite T. The contrast in grammaticality with (37)a and (38)a, in turn, suggests that *agus* participates in some way in the Case-licensing of the SC subject so that whatever syntactic relationship holds between it and *agus* in (37)a and (38)a cannot be altered by moving the SCs to sentence initial position.

A solution to the ungrammaticality of (37)b and (38)b is indeed available in the theory of default Case for SC subjects proposed in Chung and McCloskey (1987): in almost all the examples cited where default Case is posited for the SC subject, the SC itself is complement to some head (e.g a verb, an adjective, *agus* or the negative complementiser *gan*) and the subject position is assumed to be governed by that head.^{45,46} It might, therefore, be argued that in order for default Case to apply in this environment the subject position must generally be governed. However, since our objective is to provide a more transparent alternative to the notion of default Case and to do this within a framework which does not invoke the notion of government the ungrammaticality of (37)b and (38)b requires an alternative explanation. In the next subsection we take the first step towards

⁴⁵Chung and McCloskey do provide an example, abbreviated in (i) below, of a SC occurring in syntactic isolation which they describe as a very common type of discourse structure, in both oral and written narrative. It consists of a sequence of clauses only the first of which contains a verb (their (8)):

(i) Ghaibh criú naomhóige isteach. Iad ríghin fadthruslógach.
 come (Past) crew currach(Gen) in them tough with-long-losing-stride
 'The crew of a currach came in. They were tough and walked with a long loping stride'

Since the grammaticality of examples like (i) is largely dependent on discourse factors it seems more appropriate to analyse them separately from SCs which occur in syntactically dependent positions.

⁴⁶Default Case is also posited for the second conjunct of conjoined NPs (see McCloskey 1986a:248;1991) like the following:

(i) Bhíos [pro féin] agus [Tomás] ag caint le chéile
 Be(PAST) EMPH S1 and Tomás (PROG) talk-VNwith each other
 'Thomas and I were talking to one another'

In this context default Case does not in fact depend on government i.e the first NP is governed and Case-licensed by Agr (hence the agreement between first person singular on the verb and the first conjunct) but not the second.

identifying the categorial status of non-subordinating *agus* before a SC.

4.3.2 Contra analysing *agus* before a SC either as +/- finite Tense or as Comp

Before presenting evidence in support of analysing *agus* before a SC as Asp, we consider in this subsection two alternative possibilities which will be rejected here: i) that it might be a lexicalised Tense head (+/- finite) (2.1); ii) that it might be inserted under C (2.2).

4.3.2.1 *Agus* as +/-finite tense

If *agus* before a SC were +finite T SCs would be structurally very similar to finite clauses generally - that is to say, in each case a +finite TP would dominate a lexical CFC.⁴⁷ Analysing it as such seems initially to have two significant advantages which we discuss next below.

The first apparent advantage concerns the temporal interpretation and syntactic position of the SC in relation to the main clause. Recall from Chapter 2 section 3.2 Enç's account of the interpretation of tense in embedded tensed clauses in which matrix T c-commands embedded T (i.e clausal complements to V and certain relative clauses). A type of syntactic binding referred to by Enç as 'anchoring' is invoked in such cases to explain why the event described in the embedded (CP)TP can (in certain circumstances) be interpreted as taking place at the same time as the event of the matrix clause.⁴⁸ This anchoring of embedded T by matrix T led to identical tense interpretations i.e simultaneous readings in which the two events take place over the same temporal interval (see (39)a and (42)b in

⁴⁷In a canonical finite clause T would not necessarily *directly* dominate the CFC. See footnote 4 above for different accounts of the functional structure of canonical Irish +finite clauses.

⁴⁸Recall that when the embedded clause is a complement of V the simultaneous reading only arises if the predicate of the complement clause is stative. When the embedded clause is not a complement to V (e.g when it is a relative clause) the simultaneous reading is not limited to examples with stative predicates.

Chapter 2). Anchoring of embedded T via the anchoring of embedded C was also shown to be possible in the same examples. This allowed for alternative, shifted readings in which both events take place in the past but one precedes the other i.e the events are not interpreted as simultaneous.⁴⁹

One particularly striking feature of the Irish SCs in (39) and in (23)a&b above is that in all three cases the embedded tense is arguably in a position in which it could be ‘anchored’ by matrix T. Everything in the *agus*+SC complement to *tá/be* in (39) is automatically c-commanded by matrix T, while in the case of the adverbial clauses in (23)a&b, c-command by matrix T is possible if these clauses are located as adjuncts to matrix VP. The apparent advantage of analysing the SCs as TPs in these positions, therefore, is that it seems to allow for an Enç-type, syntactic account of the temporal interpretation of the SC in relation to the main clause. To illustrate the point: in (23)a, repeated below as (44), the (past) event of meeting referred to in the main clause has to take place at some point during the (past) event of going home referred to in the adjunct, while in (23)b, repeated as (45), the two (past) ‘state events’ *being a doctor in America* and *being happy* must also be simultaneous:

- (44) Bhuail mé leis agus é ar an bhealach 'na bhaile
 Met I him and h on his way home
 'I met him as he was on his way home'
- (45) Bhí me lán sásta agus Seán ina dhochtúir i Meiriceá
 was I very pleased and Sean in his doctor in America
 'I was very pleased when/that Sean was a doctor in America'

It looks, therefore, as if the embedded T is anchored by matrix T so that the two are co-indexed and interpreted as simultaneous. However, Enç’s theory also predicts that when T (PAST) c-commands everything in a PAST embedded clause (e.g (39)a and (42b) of chapter 2) a shifted reading should be available (recall that in (39)a and (42)b of Chapter 2 a simultaneous reading of the embedded clause is available in addition to the shifted reading). This is because embedded tense in such cases can also be anchored via the

⁴⁹Recall from above that the examples in which the shifted reading is available have PAST tense verbs in both matrix and embedded clauses.

anchoring of its local Comp. When this happens the local Comp is co-indexed with the matrix tense and the embedded tense is interpreted as referring to a time which is either the same as this or prior to it, depending on whether the embedded tense is specified as PRESENT or PAST. However, no interpretation of (44) and (45) is possible in which the subordinated event takes place at any time other than the same time as the main event, as illustrated in the following unacceptable translations of these sentences:

- (46) a. #I met him. He had been on his way home.
 b. #I was very happy when/that Sean had been a doctor in America

Similarly, there is no reading of (39) in which the time referred to by *tá/be* can be other than simultaneous to the time at which the stative event of being completely silent takes place.⁵⁰

The absence of shifted readings in the examples discussed above can only be explained away within Enç's system if it is stipulated that the SC in such cases is always specified as PRESENT, so that even when tense is anchored via anchoring of the local Comp the embedded tense will be interpreted as the same as the embedded Comp (which in turn would be co-indexed with matrix T).⁵¹ However, this would be an arbitrary and therefore unattractive option. What we see in fact is that the *agus*+ SC phrase does not actually pattern with comparable embedded tensed clauses i.e those like (39)a and (42b) of chapter 2 in which matrix T (PAST) c-commands embedded T(PAST), since unlike them it allows for a simultaneous reading only.⁵²

⁵⁰What the two events might be in (39) needs to be clarified. The higher event i.e the one associated with the tensed *tá* is clearly of a different kind from the one occurring when the tensed verb belongs to a main clause modified by an *agus* adjunct. Following Ramchand (1996) we assume that in *tá* constructions there is an abstract situational variable S which is the semantic subject of the sentence. An 'event property' (corresponding to the event represented by the lexical CFC) is then predicated of this S. Thus, in the semantics one event has an abstract S as subject, the other has a lexical NP as subject.

⁵¹The possibility that the SC is a TP without a Comp (hence the absence of such readings) is unlikely given the fact that it occurs preceded by the complementiser *gan*. We return to this further below.

⁵²Of course an *agus*+SC phrase c-commanded by matrix PAST has a shifted reading when the predicate is headed by the aspect marker *tar éis/after*:

- (i) *Bhuail mé lei agus í tar éis a cuid bricfeásta a itheadh*
 met I her and she after her breakfast eat-VN
 'I met her after she had eaten her breakfast' / 'I met her having eaten her breakfast'

Neither does it pattern with embedded tensed clauses in which matrix T does *not* c-command embedded T (see Chapter 2, (42)a) since the latter are independent of the matrix clause in terms of their temporal interpretation i.e they do not obligatorily bear the same tense specification (i.e PAST/PRESENT) as the embedded clause, while *agus*+SC adjuncts, generally, get interpreted in this way.

In short, the close temporal relationship between a matrix clause and an *agus*+SC phrase cannot be adequately explained in terms of Enç's theory of syntactic 'anchoring': the potential interpretation of tensed embedded clauses c-commanded by matrix PAST tense is not the same as that of *agus*+SC phrases c-commanded by matrix PAST. Sentences in which the embedded tensed clause is an adjunct, as in (42)b of chapter 2, provide the clearest illustration of the contrast in terms of potential temporal interpretation between canonical +finite (CP) TPs and the *agus*+SC phrases under discussion here. Tensed adjunct clauses can in principle be either PRESENT, PAST or FUTURE, while *agus*+SC adjuncts, generally, describe events interpreted as contemporaneous with the matrix clause.

The second apparent advantage of analysing *agus* in these examples as +finite T concerns the issue of subject Case-licensing in SCs. We will argue in section 5 below that the subject of these SCs is Case-licensed, not in a standard checking configuration, but via 'Morphological Merger (M-merger) on the way to PF as proposed in Adger (1996)a for the subjects of finite clauses. Adger's proposed M-merger in finite clauses takes place between the verb in T and the subject adjacent to it in [Spec,VP]. In section 5 we will examine the strong evidence in support of M-merger between T and the subject in finite clauses, proceeding to our arguments that M-merger also takes place between *agus* and the subject of SCs. Although it would indeed be significant if *agus* turned out to be a (finite) tense head, since this would mean that subject Case-licensing in the two contexts would effectively be the same (i.e the subject would M-merge with +finite T in both cases), the evidence against this is strong.

A full account of this example is given in section 3.3.1 below.

The problem is as follows: if *agus* were +finite T, it might be expected that a SC, like finite clauses generally, should be able to occur freely as a main clause i.e as a syntactically independent phrase, which is not the case.⁵³ All three of the following, in which the SC stands alone, are unacceptable:

- (47) a. **agus** [gan focal aisti]
and not a word from her
b. **agus é** ar an bhealach 'na bhaile
and he on his way home
c. **agus** Seán ina dhochtúir i Meiriceá
and Sean in his doctor in America

Of course the unacceptability of these clauses in isolation might simply be caused by the fact that, unlike main clauses generally, they do not contain a verb. However, this is not an effective way of ruling out 'free-standing' SCs since it leads to the expectation that such phrases might be saved by the insertion of the copula (in its untensed form).⁵⁴ As demonstrated below, this is not the case:

- (48) a. ***agus** [gan focal bith aisti]
and not a word be from her
b. ***agus é** bith ar an bhealach 'na bhaile
and he be on his way home
c. ***agus** Seán bith ina dhochtúir i Meiriceá
and Sean be in his doctor in America

Moreover, *agus*+SC phrases in which the predicate of the SC is a progressive VP are equally ungrammatical in isolation:

- (49) a. Bhuail mé leis agus é ag dul abhaile
Met I him and him PROG go-VN home
I met him as he was going home
b. ***agus é** ag dul abhaile

⁵³See footnote 45 above for examples where discourse factors permit a SC to occur alone in this way. Note that in all such cases a tensed clause precedes the SC in the discourse so that the SC is not actually 'free' to occur independently, unlike main clauses generally.

⁵⁴*Agus* rather than V would be the finite tense marker. The verb, like verbs in SCs generally, would remain uninflected for tense and would not move to T (see Introduction to this chapter).

One way of accounting for the ungrammaticality of (47)a-c, (48)a-c and (49)b within a theory in which *agus* is +finite T would be to posit a non-overt C above T, in such cases, with a feature which must be checked by a head above it. The derivation would crash if the *agus* phrase occurred in isolation (as in these examples) since the feature on C would not be checked. Another would be to posit some non-overt element/feature, possibly in CP, which marks the clause as an adjunct of a particular kind (cf. clauses introduced by *when*, *because*, *although*). Although these strategies would force the *agus*+SC phrase to be subordinate they are not plausible solutions as the argument that the *agus*+ SC phrase is not a main clause (i.e a +finite TP) simply becomes circular.

We turn next to the possibility that *agus* before a SC might be a -finite tense head. Since -finite T typically allows a PRO subject in its specifier (provided TP is dominated by CP) SC complements to *agus* should also be allowed to have a PRO subject. The fact that these SCs are actually CPs, at the very least in negative contexts, is illustrated first below (the SCs are preceded by the negative complementiser *gan*):⁵⁵

(50) Bhuail mé leis [*agus gan é ach ar an bhealach 'na bhaile*]
 met I him and NEG him but on the way home
 'I met him when he was only on his way home'

(51) D'fhag se an teach [*agus gan muid ach ag toiseacht*]⁵⁶
 left he the house and Neg us but ptc start-VN
 'He left the house although we were only starting'

Note now that when the SCs in (44),(45),(50) and (51) above are given PRO subjects the result is ungrammatical:

⁵⁵In treating *gan* as a complementiser we follow Chung and McCloskey (1987) who point out (p.184) that the preposition *gan*, meaning *without*, is easily distinguished from the homophonous complementiser, the phrases headed by the latter showing, completely, the distribution and behaviour of clauses. Note also that if *agus* in these examples were actually T, T would have to have moved (and left-adjointed) to C in order to precede it at PF.

⁵⁶Chung and McCloskey's example (34).

- (52) a. *Bhuail mé leis PRO agus ar an bhealach 'na bhaile⁵⁷
 met I him and on my/his way home
 b. *Bhí mé lán sásta PRO agus i mo/in a dhochtúir i Meiriceá
 was I very pleased and in my/his doctor in America
- (53) a. *Bhuail mé leis [agus gan PRO ach ar an bhealach 'na bhaile]⁵⁸
 met I him and NEG but on the way home
 b. *D'fhag se an teach agus gan PRO ach ag toiseacht]
 left he the houseand Neg but ptc start-VN

Thus, regardless of whether PRO is to the left of *agus* (as in (52)a&b) or to the right of it (as in (53)a&b) at Spell-Out, the subject of the SC must have a lexical subject.

If checking were to take place in a standard checking configuration (53)a&b could be ruled out within the terms of GB theory on the grounds that PRO is governed by *gan*. But this would still leave (52)a&b unaccounted for, since a -finite T should be able to check null Case (Chomsky 1995) on the PRO subject of the adjunct. It might of course be argued that *agus* has moved to C in these examples also, so that PRO in [Spec,TP] is actually to the right of *gan* rather than to the left (i.e. **bhuail mé leis agus PRO ar an bhealach 'na bhaile*) and that *agus* therefore governs PRO like an ECM complementiser. This is implausible in view of the obvious differences between *agus*, on this approach, and ECM governors generally: while these are either purely lexical elements e.g. verbs, or quasi-lexical elements like prepositional complementisers, inserted under a functional head (C), *agus* would be a purely functional head (T) which would have moved and adjoined to another functional head, C. In other words a non-finite T, which does not govern its specifier, would become a governor in an ECM configuration. Ruling out (52)a&b by invoking the principles of GB theory is not therefore a convincing option.

If Adger's theory of checking via M-merger is adopted the prohibition on PRO can arguably be accounted for within a theory in which *agus* is analysed as T.⁵⁹ However, what

⁵⁷*Agus* is located under (-finite)T here, and PRO is in [Spec,TP].

⁵⁸In this and the following example T would have moved to C, since *agus* precedes the complementiser *gan*.

⁵⁹This will become clearer in section 5 where the case is argued for an M-merger account of subject Case-licensing in these SCs. Briefly, the absence of PRO subjects in *agus*+SC phrases may be related to the fact that there is no inflected form of *agus*. PRO (unlike *pro*) does not trigger inflection on verbs. However, the fact

cannot be explained, regardless of how the subject is Case-licensed, is the fact that the hypothetical, non-finite 'CP-TP-SC' is not interpreted like non-finite CP-TPs generally.

Recall from Chapter 3, section 1.2 the observations made in Stowell (1982)b on the temporal interpretation of clauses, particularly when these are non-finite CP-TPs. Stowell demonstrates that CP-TPs which are not main clauses (e.g complements and adjuncts) have two main possibilities with regard to temporal interpretation: i) when T is +finite they can refer to past, present or future time (i.e unrealized with respect to the matrix); when T is -finite they are interpreted as referring to an event which is unrealized with respect to the matrix event i.e they refer to a possible future event (e.g *John remembered to bring the wine; John convinced his friends to leave; the table on which to put your coat is in the next room*).⁶⁰ Returning now to the *agus*+SC phrases in (44) and (45) above: what is important is that all are interpreted as though they were tensed i.e they refer to an event which is obligatorily interpreted as simultaneous to the main event. No interpretation is available in which the second event is 'unrealised with respect to the matrix' or in any sense a 'possible future'. It seems unlikely therefore that *agus* +SC phrases are non-finite CP-TPs.

In rejecting an analysis of *agus* before a SC as -finite T, the main focus so far has been on examples like (23)a&b in which the SC is an adjunct to the matrix clause. Consider now examples like (39) (repeated below as (54)) in which the SC is complement to *tá/be*:

- (54) Bhi sí agus [gan focal aisti]
was she and not a word from her
'She was completely silent'

The possibility of *agus* being -finite T in examples of this kind cannot be ruled out on the basis of the same arguments as those put forward above against -finite T in SC adjuncts, for the following reasons.

that tensed forms of verbs exist in the language arguably allows the untensed form to indicate 'default' Phi features for the subject. Since no inflected form of *agus* exists there can be no default form either. M-merger between *agus* and the subject when the subject is PRO may be blocked for this reason.

⁶⁰You also get non-finite CP-TPs which refer to habitual events e.g with *prefer/love* (*John preferred/loved to walk*).

Firstly, the prohibition on a PRO subject for the predicate *agus gan focal aisti* in (54) can actually be accounted for. Imagine that PRO were to be inserted into the specifier of a hypothetical embedded (-finite)TP here. It could be argued that matrix (finite) T must check its D feature against a noun in its specifier.⁶¹ Since PRO is not expected to move into this governed position a PRO subject in the SC complement of *tá/be* would cause the derivation to crash.⁶²

Secondly, the other point raised above against (-finite) T, namely, that the adjunct SC does not have an interpretation of the kind found with non-finite CP-TPs generally ('unrealised with respect to the matrix' or a 'possible future') is less relevant in the case of examples like (54), since it might be argued, on the basis of the translation, that there is effectively only one event here i.e the stative one of 'being completely silent'. For this reason, although it is true to say that the hypothetical non-finite (CP) TP, unlike non-finite (CP)TPs generally, does not refer to an event which is 'unrealised with respect to the matrix' (or a 'possible future') the argument has less force, under the circumstances, than in the case of SC adjuncts.

The fact is that, all other things being equal, *agus* in (54) could be either (-finite)T or (as will be argued below) it could be Asp: either TP or AspP can in principle be selected by V in Irish,⁶³ and either, at least in other languages (and arguably here also) can combine with lexical CFCs to form predicates.⁶⁴ However, there are reasons why analysing it as Asp seems preferable to analysing it as -finite T. Since the main case for locating *agus* before

⁶¹Alternatively, it could be argued that the EPP would be violated since PRO could not move into canonical subject position. Note however that McCloskey (1996) has proposed that the EPP does not hold in Irish.

⁶²There is also the possibility that the embedded (non-finite) TP actually has a controlled PRO in its specifier (eg. *bhí sí, PRO, agus gan focal aisti*) but this is unlikely to be the case as the lexical NP subject would have to receive its theta role from *tá/be* (or a combination of *tá/be* and its TP complement) in order for a violation of the Theta Criterion to be avoided.

⁶³(22)a&b above are examples of V selecting AspP as complement. As in languages generally, V selects CP-TP complements (e.g. *dúirt sé go raibh sé sásta* / 'he said that he was pleased'). There are also verbal-noun clause/non-finite clause complements to V. However, as the issue of whether verbal-noun clauses/non-finite clauses are actually TPs is debatable (discussion in Chapter 4), we do not cite examples of these here.

⁶⁴Aspectual auxiliaries in French and German dominating VP (assuming the VP-internal subject hypothesis) are an example of Asp dominating a CFC

SCs under Asp is presented shortly below (in 3.3.2) we postpone the -finite T versus Asp debate in relation to (54) until that point.

4.3.2.2 *Agus* as C

Finally, consider very briefly the likelihood that *agus* is C. Although *agus* shares a number of properties with complementisers (e.g. it forms a constituent with the clause following it; it can be moved together with its clausal complement to sentence initial position; it could be said to indicate the ‘force’ of its complement e.g. as a temporal or causal modifier) the fact that it co-occurs with the complementiser *gan* (see (50) and (51) above) suggests that it is not itself a complementiser. In analysing it as Asp next below, we will take all of the above properties of *agus* into account.

4.3.3 *Agus* before a SC as Asp

The conclusion reached in the discussion thus far on *agus*+SC phrases is that they are ‘clause-like’ structures consisting of a lexical CFC dominated by a functional projection (headed by *agus*) which, at least in examples like (23)a&b, is not TP. The next step is to examine further how *agus*+SC adjuncts are interpreted. This will bring us closer to establishing the semantic content of the *agus* head in these phrases and ultimately to identifying its categorial status before SC complements in non-co-ordination contexts generally.

4.3.3.1 Semantic content of non-co-ordinating *agus* before a SC

Since the *agus* +SC phrases considered thus far, with the exception of the one in (54),

have had either temporal or causal meaning one might be led to conclude that non-coordinating *agus* means either *when* or *because*. However, O'Siadhail (1989) points out that *agus*+SC adjuncts have three further uses i.e they can: i) refer to attendant circumstances; (ii) function like a relative clause; or iii) be concessive, as illustrated in the bracketed phrases of (55)a-c, respectively, below.⁶⁵

- (55) a. Bhí Brian glanta leis [agus é ag scríobadh a chinn.....]
 was Brian vanished to-him and he PROG scratch-VN his chin....
 'Brian vanished *scratching his head*....'
- b. Píosa de chlár cearnógach péinne bhí mar mharc aici [agus fáinne beag ina lár]
 piece of board square pine was as target to-her and ring small in its centre
 'Her target was a square piece of pine board *in the middle of which was a small ring*'
- c. Tá sé cinn de leitreacha pósta tugtha agam uaim cheana,
 are six of letters freedom given by-me already
 [agus gan an t-aon lánúin pósta agam féin fós]
 and without the one couple married at-me yet
 'I have given six letters of freedom already, *while as yet I haven't married a single couple*'

The above range of possible interpretations found with *agus*+SC phrases leads us to two further conclusions here: firstly, that there no single lexical item which can be said to capture the semantic content of the *agus* head; and secondly, that the exact interpretation of the *agus* adjunct as temporal, causal, or concessive etc. depends, not on some core meaning of *agus*, but rather on the logical connection between the proposition of the main clause and the proposition of the adjunct, in the real world context of the utterance. This is not to say that *agus* is without core meaning, but rather, that the meaning is of a relatively abstract kind, comparable, to some extent, in this respect, with the semantic content of the functional head T.⁶⁶

Consider, now, what might reasonably be said to constitute the core meaning of *agus*. The key observation on the *agus*+SC phrases in (23)a&b, in this respect, is that there is an entailment that the event in the SC is contemporaneous with the event in the main clause.

⁶⁵O'Siadhail's examples (196), (197) and (198). The first of these is abbreviated for convenience.

⁶⁶T is overtly realised as a deictic morpheme indicating present, past, or future time i.e the precise time referred to depends on context, linguistic or real world. T, therefore, has its own core meaning but depends on context for its full interpretation.

By contemporaneous here we mean that there must be some temporal overlap between the two events, which may be partial or total but not completely absent. For example, as already noted in 4.3.2 above, the event of meeting referred to in the main clause of (44) has to take place at some point during the event of going home, referred to in the adjunct, while in (45) above the two 'state events' *being a doctor in America* and *being happy* are interpreted as completely contemporaneous. Consider now examples like the following, where the predicate of the SC is the aspect marker *tar éis*:

- (56) **Bhuail mé lei agus í tar éis a cuid bricfeásta a itheadh**
 met I her and she after her breakfast eat-VN
 'I met her after she had eaten her breakfast'

The embedded event of (56) is translated into English using a PAST perfect tense. Recall from Chapter 1 (section 3.1) the proposal in Smith (1991) that in the perfect construction generally the Reference Time is to be distinguished from the Situation Time. The tensed translation of the adjunct indicates that the Situation Time of the adjunct event (i.e the time at which breakfast was eaten) is interpreted as anterior to its Reference time. The Reference Time of the adjunct event, in turn, is interpreted as the same as the Reference time of the main event i.e PAST.

What we propose therefore is that the semantic function of non-co-ordinating *agus* before a SC is to create a relationship of temporal overlap between two events such that the Reference Time of the two events is interpreted as the same and the *agus*+SC phrase is interpreted as a background against which the event in the matrix clause takes place. Since this is an aspectual function our view is that the relevant head is Asp. In the next subsection a number of comparisons, both syntactic and semantic, are drawn between Irish *agus*+SC adjuncts and English Absolutes analysed as AspPs in Chapter 2. The similarities between the two constructions support our claim that *agus* before a SC is indeed an Asp head and that the phrase as a whole, like English Absolutes, is a clausal AspP.

4.3.3.2 Comparing English Absolutes and Irish *agus*+SC phrases

There are three main syntactic parallels, explained in (i)-(iii) below, between the English Absolutes discussed in Chapter 2 and Irish *agus*+SC phrases which support the view that they should be treated as instances of the same clausal structure. These concern internal composition, subject Case-licensing and syntactic position respectively:

i) Internal composition: both consist of CFCs which either contain an untensed verb or lack a verb completely. Since, in addition to this, they do not occur in syntactic isolation, it might seem at first that these CFCs should be classified uniformly as traditional SCs i.e. bare lexical projections.⁶⁷ However, each includes an element which could arguably be analysed as morphological evidence of a functional head dominating the lexical CFC - in Absolutes this is *ing* (when V is present); in *agus*+SC phrases it is *agus*. The likelihood that Absolutes and *agus*+SC phrases might be more than simply bare lexical projections becomes stronger in the light of the subject Case-licensing facts outlined in (ii) below.

ii) Subject Case-licensing: a transparent account of the Case-licensing of a lexical subject in either English Absolutes or Irish *agus*+SC phrases has not been proven possible in the literature thus far. Solutions to the problem with respect to English Absolutes, as demonstrated in Chapter 2, have generally amounted to treating subject Case-licensing in these phrases as in some way exceptional (e.g. by introducing some stipulation to cover it); with *agus*+SC phrases the notion of default Case has been invoked. By positing functional structure above the lexical CFC the potential for explaining subject Case-licensing is considerably extended.

iii) Syntactic position: both English Absolutes and *agus*+SC phrases occur as adjuncts to the matrix clause. The Absolutes we have analysed appear either left or right adjoined to

⁶⁷In Irish we might say that the bare lexical projection is introduced by a 'conjunction'.

CP; the *agus*+SC phrases discussed above are usually adjoined to the right of the matrix clause, but can also appear to its left.⁶⁸ In addition to occurring as adjuncts the latter, as indicated above, may also be complement to *tá*/be.

These three syntactic parallels, when considered together with the two striking semantic parallels which we turn to next, are significant indicators that the phrases concerned are instances of the same clausal structure. Our points here concern, firstly, the manner in which the adverbial function of the adjunct is identified and secondly, the nature of the temporal relationship between the matrix and embedded events.

(i) Identifying the adverbial function of the adjunct: the conclusion in Chapter 2 vis-à-vis interpreting the semantic function of Absolutes was that the event denoted by the Absolute is the background against which the event in the main clause takes place. Following Stump (1985) it was noted that context, together with aspects of the meaning of the adjunct, are important factors in determining whether the Absolute should be interpreted as temporal, causal, conditional or referring to attendant circumstances. Recall now O'Siadhail's observation, noted above, that *agus*+SC phrases also have a wide range of potential interpretations (i.e temporal, causal, concessive, referring to attendant circumstances, modifying a noun (like a relative clause)). This led to the conclusion just above that the exact interpretation of the *agus* adjunct depends, not on some core meaning of *agus*, but rather on the logical connection between the proposition of the main clause and the proposition of the adjunct, in the real world context of the utterance. The crucial point here is not that the two constructions have similar, potential interpretations but rather that the appropriate interpretation in any one case is arrived at under similar circumstances, namely, without a subordinating conjunction to specify what that function is (e.g a temporal, causal, or concessive conjunction of the kind found with tensed adverbial clauses), and by reference to the logical relationship between the two clauses in the real world context of the utterance.

⁶⁸When the Absolute or *agus*+SC phrase follows the main clause it could be right-adjoined to matrix VP rather than CP. This possibility has already been referred to in section 3.2 above.

(ii) Temporal relationship between main clause and adjunct: in Chapter 2 tensed paraphrases of Absolutes were used to demonstrate that the matrix clause and the Absolute always have an interpretation in which the Reference Time of both is the same. The general conclusion was that the event described by the Absolute temporally surrounds the event described by the main clause. More specifically, it was proposed that the temporal interval associated with the event of the Absolute includes the temporal interval associated with the event of the main clause.

The parallel with Irish *agus*+SCs in this respect is clear: we have argued above that the semantic function of *agus* is to create a background against which the event in the main clause takes place and that *agus* indicates a temporal overlap between two events. Absolutes and *agus*+SC adjuncts, therefore, have the same temporal relationship with the matrix clause since, in both, the Reference Time of the matrix and adjunct events is the same.

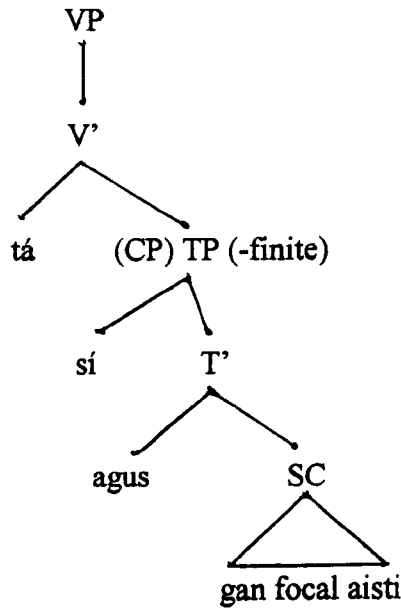
To conclude on the syntactic and semantic parallels between English Absolutes and Irish *agus*+SC phrases: these support the hypothesis that Irish *agus*+SC phrases are also AspPs. Finally, we return briefly to the issue of whether *agus* in examples like (54) above (in which it combines with a SC to form the predicate of a higher SC) is (-finite) T or Asp.

4.3.3.3 Agus +SC complements of *tá*/be revisited

Our claim in subsection 3.2 above was that it is preferable to analyse *agus* in this environment as Asp rather than as -finite T, although the evidence is inconclusive. It is inconclusive because, as will become clear below, the three arguments we will put forward in support of this view rely, to varying degrees, on our being correct in other claims argued for independently above.

Suppose, for argument's sake, that the higher SC in (54) is a non-finite (CP) TP with the structure in (57) below, showing the subject in [Spec, TP] from where it will raise to matrix [Spec,TP] for Case-checking (non-finite T cannot check the Case of a NP in its specifier).⁶⁹

(57)



We will consider now whether there is any evidence of an independent kind that either of the two functional heads, -finite T or Asp, occurs as complement to *tá/be*. The answer in the case of Asp is that there is indeed morphological evidence of *tá/be* selecting an AspP complement, as illustrated in the following example repeated from above:

- (58) Bhí sí, [t, ag itheadh a cuid bricfeásta]
 was she PROG eat-VN her breakfast
 'She was eating her breakfast'

(58) shows the uncontroversial marker of progressive Aspect, *ag*, heading the predicate of a SC complement to *tá/be*. We have already proposed a structure for examples like (58) (see tree in (22)a) in which *tá/be* selects an AspP complement headed by *ag* (it has been argued that *ag*, in turn, takes a CFC complement, the subject of which moves to matrix [Spec,TP] via [Spec, AspP]). We have also seen above that the uncontroversial marker of

⁶⁹A CP layer between matrix V and non-finite TP has not been included in the tree.

perfect Aspect, *tar éis*, can head the predicate of a SC complement to *tá/be*:

- (59) Bhí sí_i [t_i **tar éis** a cuid bricfeásta a itheadh]
was she after her breakfast (agr) eat-VN
'She had eaten his breakfast'

In the structure assumed for (59) (see (22)b above), *tar éis* is located under Asp and selects a non-finite clause/verbal-noun clause complement.

If these are the correct structures for (58) and (59) the main syntactic difference between these examples is that the CFC complement of the Asp head *ag* is a bare lexical projection, while the CFC complement of *tar éis* is a split VP (of the kind assumed here for clauses with preposed direct objects). If *agus* in (54) is also Asp then all three proposed Asp heads would not only be selected by *tá/be* but they would all in turn form predicates by combining with a CFC complement.

There are of course other possible accounts of the internal structure of the complements to *tá/be* in (58) and (59). For example, they could be analysed like their SG equivalents in Ramchand (1996) (see (20)a&b above). There, Asp selects a VP predicate as complement, rather than a CFC, and the subject is inserted into [Spec,AspP]. The analogy between these two examples and (54) above would be less significant under this theory, since although *tá/be* would in all three examples, select an AspP complement, in (58) and (59) this complement would be a predicate (denoting a property in the semantics), while in (54) it would be a clause (i.e SC/CFC) (denoting a proposition in the semantics).

However, our point does not depend entirely on Asp selecting a CFC complement in all three examples.⁷⁰ What is important is that (58) and (59) constitute independent morphological evidence that *tá/be* selects AspP complements, and for this reason it

⁷⁰The view that Asp in (58) and (59) does take CFC complements is supported by the fact that Asp seems to take CFC complements in grammars generally e.g as noted above, aspectual verbs in English and French dominate VPs which are CFCs (assuming the VP internal subject hypothesis).

supports our claim that *agus* in (54) might also be Asp. The analogy with (54) would of course be considerably strengthened if all three proposed Asp heads were not only selected by *tá/be* but also formed predicates in the same way i.e by combining with a CFC complement, as we have argued above.

Independent morphological evidence of *tá/be* selecting a -finite TP complement which might be considered on a par with the morphological evidence provided above of AspP complements to *tá/be* is not possible. This is because Irish does not have a specific morpheme corresponding to non-finite T, in the way, for example, infinitival *to* marks non-finite T in English.⁷¹

Our second argument in support of analysing *agus* in (54) as Asp rather than as -finite T concerns the potential this would create for certain comparisons to be drawn, in terms of distribution, with the uncontroversial aspect marker *tar éis*. *Tar éis* can function either as the head of a predicate in a SC complement to *tá/be*, as in (59) above, or it can introduce a verbal-noun clause/non-finite clause complement, as in the following example from O'Siadhail (1989:285):

- (60) [*Tar éis an leabhar a cheannach*] bhi Seán sásta
 After the book ptc buy-VN was Sean satisfied
 'When John had bought the book he was happy'

The complement of *tar éis* here is a temporal/causal adverbial clause.⁷² Note now that *agus*

⁷¹The fact that *tá/be* does not select verbal-noun clauses/non-finite clauses, as illustrated in (i) below, is irrelevant here since, as indicated above, these are not necessarily (-finite TPs):

- (i) *Bhí sí [t_i a cuid bricfeásta a itheadh]
 was she her breakfast (agr) eat-VN

⁷²There are other contexts also where it could be argued that *agus* is in a position where the uncontroversial Aspect markers also occur. However, an important difference which makes the point much less significant in such cases is that, unlike with *tá/be*, there is independent morphological evidence of TP in the same position. Take, for example, (i)a&b below, showing SC complements to *minic* (often) (the internal structure of the bracketed phrases in these examples will be made fully explicit in section 4.4):

- (i) a. Ba mhinic [Eoghain *agus* eagla air]
 Cop(Past) often Owen and fear on-hi
 'Own was often afraid'

can also introduce adverbial clauses of this kind i.e verbal-noun clause/non-finite clause complements (examples again from O'Siadhail 1989:285):^{73, 74}

- (61) a. Ag spailpínteacht a bhí tú ó mhaidin
 ptc(PROG) toiling-VN that were you since morning
 * [agus codladh a bheith ort]
 and sleep-VN ptc be-VN on-you
 'You were toiling since morning seeing you are sleepy'
 b. Is dóigh gur dhíol [agus é a bheith in árainn]
 Cop suppose that sold and he ptc be-VN in Aran
 'I suppose that he did sell, as he was in Aran'

If we were correct in the proposal that *agus* in (54) is Asp rather than T, and if we were also correct in claiming that *tar éis* in (54) takes a CFC complement, a second parallel could be drawn between *tar éis* and the proposed aspectual *agus*: not only would both head

-
- b. Ba mhinic [Eoghan ag magadh fúm]
 Was often Owen prog(pte)mock-VN me
 'Owen often mocked me'

If both *ag* and *agus* were Asp here, and if *ag*, as we have argued above, selected a CFC complement (with the subject moving to [Spec, AspP]), then in these examples both *ag* and *agus* would head SC complements of *minic* (often) and both would in turn select CFC complements. However, since +finite CP-TPs are possible in the same position, as illustrated in (ii) below, *agus* in (i) could, in principle, be either Asp or T:

- (ii) Ba mhinic go raibh eagla air
 Cop(Past) often COMP was fear on him
 'He was often afraid'

(iii) a&b show the same parallel in the SC complement of a perception verb, followed by a +finite CP-TP complement in (iv):

- (iii) a. Ní fhaca me ariamh [Máire agus eagla uirthi]
 not saw me ever Mary and fear on-her
 'I never saw Mary afraid'
 b. Ní fhaca me ariamh [Máire ag obair]
 Neg saw I ever Mary prog(pte) work-VN
 'I never saw Mary working'

- (iv) Ní fhaca mé go raibh sé ag gáire
 Neg saw I COMP was he prog(pte) laugh-VN
 'I didn't see that he was laughing'

⁷³O'Siadhail observes that *agus* followed by a non-finite clause (referred to by him as a 'verbal noun type' complement) is much less frequent than *agus* followed by a SC i.e *agus* phrases of the kind in (23a&b) (which he terms the 'absolute subject type' complement).

⁷⁴The adverbial clauses here are 'causal'. Notice that in (59b) the adjunct modifies the matrix clause, not the embedded finite clause i.e it gives the reason why the speaker *believes* the addressee to have sold, not actually why he sold. Similarly, in (59a) the adjunct gives the reason why the speaker believes the addressee to be sleepy, not the reason why he was toiling.

AspP complements to *tá/be* but both would also introduce verbal-noun clause adjuncts.⁷⁵

76

Finally there is the fact that considerable syntactic and semantic evidence has been put forward in 3.3 above against T and in favour of Asp in *agus*+SC adjuncts. Since the most desirable result of reconsidering the category of (non-co-ordinating) *agus* before a SC is that it should receive a uniform analysis in all (non-co-ordinating) contexts it seems more plausible to treat it as Asp here also.

Summing up this section as whole, we have argued that *agus* before a SC is, in the general case, not a co-ordinating conjunction but rather a functional head dominating a lexical CFC. The possibility that *agus* might be a lexicalised tense head, +/- finite, has been addressed and rejected on the basis of evidence concerning the temporal relationship of its SC complement with the main clause (which rules out Enç-type ‘anchoring’ of embedded tense by matrix tense); the prohibition on PRO subjects (arguing specifically against a -finite T analysis); and the absence of an ‘unrealised with respect to the matrix’ interpretation of the SC of the kind associated by Stowell with non-finite (CP)TPs (again arguing against a -finite T analysis)⁷⁷.

It has been claimed that *agus* in *agus* + SC adjuncts is Asp, firstly, on the basis of its semantic function, which we have argued is to indicate (in a structure where T is not projected) a temporal overlap of a specific kind between the event of the SC and the main clause, and secondly, on the grounds that the *agus*+SC phrases exhibits a range of properties, both syntactic and semantic, in common with English Absolutes, which have

⁷⁵It might be argued that a similar claim could be made if *agus* in the two environments were T i.e. that T can also both occur as head of a SC complement to *tá/be* and it can introduce an adverbial non-finite/verbal-noun clause. However, in the case of the latter it would be difficult to argue that *agus* is a lexicalised (-finite)Tense head, firstly, since in other contexts non-finite/verbal noun clauses do not include *agus*, and secondly, since the adverbial verbal noun clauses in (61)a&b are actually interpreted as finite. A more plausible approach would be to treat it, as we do, as an aspectual complementiser.

⁷⁶It will be argued further below that although *agus* is inserted under Asp it can move to C; *tar éis*, in contrast to this, is analyzed as an aspectual complementiser inserted directly into C.

⁷⁷If standard checking is assumed. In an account like ours, which includes M-merger, the lack of PRO would not constitute an argument against -finite T here (see footnote 59 above).

already been analysed as AspPs in Chapter 2. Finally, some grounds for believing that the *agus* heading a SC complement to *tá/be* should also be analysed as Asp rather than as T, particularly in the context of our analysis of *agus* before a SC adjunct as Asp, have been proposed.

In the next section we consider the syntactic position of aspectual *agus*, as a preliminary step towards defending the claim in the following section (4.5) that it functions as a subject Case-licenser.

4.4 The syntactic Position of Aspectual *Agus*

The purpose of what follows will be to establish what the underlying structures are, firstly, of *agus*+SC complements (4.4.1), and secondly, of *agus*+SC adjuncts (4.4.2). In view of the proposed aspectual character of *agus* in this environment, we will assume it is inserted under Asp; from there, it will be argued, it moves to C in a specific set of contexts, namely, before a negated SC complement either to *tá/be* or a lexical category, and before all SC adjuncts (to CP)).

4.4.1 *Agus*+SC complements

(62) a&b, below, show the underlying structures assumed here for *agus*+SC complements of the adjective *minic*/often and the verb *feic*/see, respectively.⁷⁸

⁷⁸These are repeated from footnote 76 above.

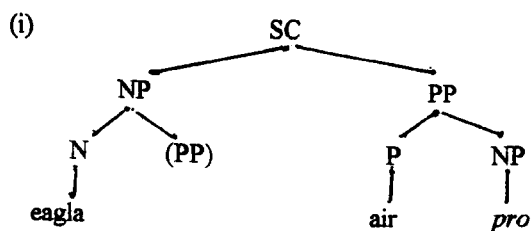
- (62) a. Ba mhinic [_{AspP}Eoghan [_{Asp}agus [eagla air]]]⁷⁹
 Cop(Past) often Owen and fear on-him
 b. Ní fhaca me ariamh [_{AspP}Máire [_{Asp}agus [eagla uirthi]]]
 not saw me ever Mary and fear on-her

In both examples *agus* is inserted under Asp, so that the SC as a whole (which is complement to a lexical head) has an AspP functional layer.⁸⁰ Recall, now, that *agus* can also occur directly preceding the negative complementiser *gan*, as in (63)a&b, below, ((63a) is (54) repeated from above), suggesting that it does not always remain under Asp:⁸¹

- (63) a. Bhí sí [agus gan focal aisti]
 was she and not a word from her
 'There was not a word from her'
 b. Ba mhinic [Máire agus gan focal aisti]
 Cop(Past) often Mary and not word out-of-her
 'Mary often didn't utter a word'

Consider, next, the fact that *agus* in (63)a&b is clause-initial (i.e it introduces the embedded SC *gan focal aisti*). It is unlikely that *agus* is actually inserted into this position (i.e directly preceding the negative complementiser *gan*) for the following reason: we can assume, on the basis of the morphological evidence, that the bracketed phrase includes a

⁷⁹There is a difference between the kind of CFC which follows *agus*, in this example, and the one in (4b) above (i.e *agus é ar an bhealach 'na bhaile*), which is worth noting here, although it has no direct bearing on our analysis: McCloskey and Sells (1988: 162) propose the following structure (adapted) in which it is labeled SC and consists of an NP with a PP sister (clefting tests show that the optional, lower PP, not the higher one, forms a constituent with N):



The difference concerns the fact that the head of NP (which is the *syntactic* subject of the sentence) assigns the theta-roles i.e experiencer to the object of the higher P (and theme to the object of the lower P, if there is one). In SCs like the one in (4b), by contrast, the NP *é* is both a syntactic and semantic subject of the SC, since it receives a theta-role from *ar an bhealach 'na bhaile*. See Adger (1996a) for an account of similar examples in SG (and Irish) in which the experiencer argument is projected above and to the left of *eagla*.

⁸⁰It is assumed that AspP directly dominates the lexical CFC (cf. the AspP posited for aspectual auxiliaries in Koopman & Sportiche 1988, 1991).

⁸¹See footnote 59 above.

CP (C=*gan*), an AspP (Asp=*agus*) and a lexical CFC, and that they are projected in that order (i.e CP, dominating AspP, dominating the lexical CFC) as in other languages e.g English, French and German.⁸² If this is correct, then the only head *agus* could be inserted into directly is C; however, this is already filled by *gan*, and two distinct morphemes are not expected to be generated under the same head.⁸³ An account in which *agus* actually moves to clause-initial position, therefore, seems more promising.

Our proposal is that *agus* in (63)a&b raises from Asp to C, to which it left-adjoins, forming a morphological compound with *gan*. This analysis is supported by the observation in O'Siadhail (1989:332) that *agus* (which can also occur as *is*) is compounded with subordinators in all dialects of Irish. In (64) below, for example, it is compounded with the complementiser *go*/that introducing a final clause.⁸⁴

- (64) Ní raibh tada ag gabháil fuithi na thairti ach an mac seo a chur os cionn,
 not was anything ptc(PROG) go-VN to-her but the son here to put in charge
 na talún agus go mbeadh sé leis an gcios a bhailiú
 of the land and that be (condit)he to-it the rent to collect
 'There was nothing on her mind except putting this son in charge of the land, *in order that* he would be there to collect the rent'

⁸²The following two alternative, underlying structures are rejected:

- (a) AspP dominating CP (dominating the lexical CFC), rather than vice versa, so that *agus* is not in a derived position and *gan* is in C.
 (b) There is no CP and AspP (filled by *agus*) dominates a NegP (filled by *gan*).

The alternative in (a) is rejected not only on the grounds that the order CP, AspP, lexical CFC is the one generally assumed to apply in other languages, but also because it is the one which appears in Irish when Asp is realised as *ag*, as illustrated in (i) below:

- (i) Dúirt sí [nach raibh sí ag dul abhaile]
 said she that-not(Comp) was she (Asp,prog) go-VN home
 'She said that she wasn't going home'

The one in (b) is rejected, not only in view of Chung and McCloskey's arguments that *gan* is in C, but because, from a morphological perspective, *gan* is arguably a combination of Comp (i.e *go*)+ negative particle. Duffield (1990), in fact, argues, that the negative particle raises to C in the syntax (our proposal implies no particular commitment to Duffield's movement analysis).

⁸³It is unlikely that two distinct C heads are projected, one for *agus* the other for *gan*, given the general assumption that a C head indicates the force of its complement (see, for example, Chomsky 1995:289) and given that force is a unitary property of a clause.

⁸⁴O'Siadhail's (117).

Other examples cited, in which the *is* variant of *agus* appears, include: *fhad is* (as long as (Donegal)), *shul is* (before (Connacht)), *chun's* (while/as long as(Connacht)), *cionn is* (because (Donegal)).⁸⁵ Our conclusion with regard to the position of *agus* in (63)a&b above, therefore, is that it is compounded with *gan* under C, as illustrated in (65)a&b below:⁸⁶

- (65) a. Bhí sí_j [_{CP} t_j [_{C'} agus_i gan [_{AspP} t_i [_{PP} focal aisti_i]]]]
 b. Ba mhínic [_{CP} Máire [_{C'} agus_i gan [_{AspP} t_i [_{PP} focal aisti_i]]]]

Notice that the subject in both examples is inserted into [Spec, CP] rather than [Spec, AspP] - this is unexpected, since C is generally assumed to represent the force of a proposition (e.g. declarative or interrogative) and not to be a theta-assigning head. Although the motivation for this proposal is primarily theory-internal,⁸⁷ it can also be justified on the following grounds: the complementiser *gan* in Irish, as already noted above, is prepositional, and corresponds approximately to English *without*. Notice now that the preposition *without* in English can head a predicate phrase, as in (66)a below, and in contexts of this kind is presumably a theta-assigner; as (66)b demonstrates, Irish *gan* can also head a predicate phrase:

- (66) a. John was without help
 b. Bhí sí_i [_{CP} t_i [_{C'} gan [_{PP} focal aisti_i]]]
 was she not a word from-her
 'She was completely silent'

Locating the subject in Irish examples like (65)a&b and (66)b in [Spec, CP] can therefore be justified because of the dual properties of *gan* in this environment: since it introduces a clause (i.e. the lexical CFC *focal aisti*) it is a complementiser - however, it also exhibits the properties of a preposition, appearing here as the head of a predicate and participating in the assignment of a theta-role (as part of a complex predicate) to the argument in its

⁸⁵Notice that *agus* is to the left of the complementiser (see (63a&b) and (64)), while *is* appears to the right. This is consistent with the fact that *is* can be cliticised to the right of the complementiser (e.g. *chun's*), while *agus* is always an independent lexical item.

⁸⁶In the next section, following the discussion on *agus* as a subject Case-licenser, a minor revision will be made to this structure (which does not affect the elements located in C' and Asp, here).

⁸⁷In the account of subject Case-licensing in (65)a&b to be proposed in 4.5 below the subject of the lexical CFC (i.e. *focal*) will move into [Spec, AspP] which cannot, therefore, be thematic.

specifier.⁸⁸ In the next subsection we propose a structure for *agus*+SC adjuncts, arguing that in this environment *agus* moves from Asp to C, regardless of whether or not the SC is negated.

4.4.2 *Agus*+SC adjuncts

Notice, to begin with, that *agus* can precede *gan* in an adjunct SC, also.⁸⁹

- (67) Bhuail mé leis [*agus gan é ach ar an bhealach 'na bhaile*]
 met I him and NEG him but on the way home
 'I met him when he was only on his way home'

The argument proposed, above, in favour of *agus* in (65)a&b actually moving to clause initial position (from Asp), can also be applied here i.e since it is sentence initial but not a simple co-ordinating conjunction, it can only be in C. If it is in C it must have moved there, because otherwise C would have to generate two distinct morphemes.

There is, in fact, independent evidence of a functional head (most plausibly Asp) below *gan* in (67), from which *agus* could move to C - it concerns the position of *ach*, which McCloskey (1989:67) has argued must be adjoined to a maximal projection (see footnote 92). If this is correct, then *ach* in (67) must be adjoined to the lexical CFC i.e PP, with the subject, in turn, moving from [Spec, PP] to the specifier of a projection above it. In view of the arguments in 4.3 that *agus* before an adjunct SC is aspectual in character and, moreover, that SCs with an AspP functional layer are already attested in the language i.e those headed by the aspectual morpheme *ag* (see (22a) above), there are strong grounds for claiming that the category of the projection proposed is AspP, with *agus* inserted under the

⁸⁸*Without* in (66)a, on the other hand, is a simple a preposition since it does not introduce a SC i.e the lexical projection is the PP *John without help* (not (without) *John help*).

⁸⁹'Only' is expressed in Irish by prefixing some maximal projection with the particle *ach*/but and indicating the scope of the quantifier so created by marking the clause that constitutes that scope with one of the negative particles (here *gan*)(Chung and McCloskey 1987). See McCloskey (1980:67) for evidence that *ach* is prefixed to a constituent only.

The claim that *agus*, before a SC adjunct, moves from Asp to C holds, even in cases where there is no complementiser *gan* e.g in (44) and (45) above. Similar evidence to that just cited above is available, this time based on adverb placement: McCloskey (1996:269) identifies a class of adverbs which are an exception to the rule (also noted in Stenson 1981:142 and O'Siadhail 1989:206) that adverbs in Irish occupy right peripheral positions. Among these are: *riamh roimhe*/ever before, *ariamh ó shin*/ever since, *i gcónaí*/always. As the following example illustrates, the adverb, in such cases, follows the subject and precedes all complements (his example (78)):

- (68) Deireann siad *i gcónaí* paidir roimh am luí
 say they always prayer before time lie
 'They always say a prayer before bed-time'

McCloskey assumes that the adverb in (68) is left-adjoined to VP and that the subject has moved out of VP. Notice, now, that the same adverb can appear either between the subject and predicate of an *agus* adjunct, as in (69)a below, or on the right periphery as in (69)b:

- (69) a. Nior thaitin sé liom [*agus é i gcónaí* ar meisce]
 not pleased he to-me and he always drunk
 'I didn't like him because he was always drunk'
 b. Nior thaitin sé liom [*agus é ar meisce i gcónaí*]
 not pleased he to-me and him drunk always
 'I didn't like him because he was always drunk'

Moreover, inserting the parenthetical *ar ndóigh* into the same position i.e between the

⁹⁰The possibility that it could be NegP, with the negative particle raising to C, also arises (see arguments in Duffield 1990 that particles in Irish (e.g the negative *ní*) raise in the syntax). However, as will become clear below, the argument that the subject moves from the specifier of the lexical CFC, applies, whether or not negation is present in the derivation and so this is not a promising solution.

It should also be noted that in examples like (45) above the subject agrees in person and number with *a* in the predicate (if the subject were feminine singular the predicate would become: *ina dochtúir* instead of *ina dhochtúir* i.e 'a' masculine singular lenites the NP following, while 'a' feminine singular does not). This suggests that there could be an AgrP dominating the PP in examples of this kind. However, since agreement only applies in a limited set of cases, and, moreover, since a slot must, in any case, be found to generate *agus*, it seems undesirable to posit AgrP *instead of* AspP in these adjuncts.

subject and predicate of an *agus*+SC adjunct, also yields a unanimously acceptable result:⁹¹

- (70) Bhuail mé leis [**agus** é, ar ndóigh, ar an bhealach 'na bhaile]
 Met I him and him of course on his way home
 'I met him as he was on his way home of course'

Assuming that the subjects of the adjuncts in (69)a and (70), respectively, are inserted into the specifier of the PP, and that *i gcónaí* and *ar ndóigh* are left-adjoined to PP, it must be concluded that the subject here also has moved to the specifier of some functional projection i.e AspP, above PP. If the subject is in [Spec, AspP], with *agus* inserted under the head, then it follows that *agus* must move to C in the course of the derivation, since it precedes the subject by Spell-Out.

Bearing in mind (69)a and (70), therefore, in which an adverbial phrase appears between the subject of the SC and its predicate, the following underlying structures are proposed for *agus*+SC adjuncts with and without *gan*, as in (67) and (45), respectively, above:

- (71) a. [_{CP}**agus**_j gan [_{AspP}é_i [_{Asp}t_j [_{PP}ach [_{PP}t_i ar an bhealach 'na bhaile]]]]]
 b. [_{CP}**agus**_j [_{AspP}é_i [_{Asp}t_j [_{PP}t_i ar an bhealach 'na bhaile]]]]]

The final point to be made here, with regard to the structure of *agus*+SC adjuncts, is that even when the derivation already contains an Asp head filled by *ag*, as in (72)a&b below, a second Asp head, to generate *agus*, must also be assumed.⁹²

- (72) a. D'fhag se an teach [**agus** gan muid ach ag toiseacht]
 left he the house and Neg us but ptc start-VN
 'He left the house although we were only starting'
 b. Bhuail mé leis **agus** [é, ar ndóigh, **ag** dul abhaile]
 Met I him and him of course prog(pte) go-VN home
 'I met him as he was going home, of course'

On the assumption that the adverbials *ach* and *ar ndóigh*, respectively, intervening between

⁹¹We will come to examples, below, in which judgements on the position of the same parenthetical are not unanimous.

⁹²(72a) is example (34) from Chung and McCloskey (1987:186).

the subject and the predicate in these examples, are adjoined to AspP (note that they directly precede *ag*, which is located under Asp), the subject must have moved to the specifier of a projection above this. A second AspP, generating *agus* (which ultimately moves to C) and directly dominating the one headed by *ag* must therefore be posited, to host the subject in its specifier.

The structures proposed are illustrated below, (73a) showing the adverb adjoined to the lower AspP (as in the last two examples), and (73b), the general case with *agus* and *ag* but no adverbial:

- (73) a. [_C*agus*_j gan [_{AspP2} muid_i [_{Asp2} t_j [_{AspP} ach [_{AspP} t_i [_{Asp} ag [_{VP} t_i toiseacht]]]]]]]]]
 b. [_C*agus*_j [_{AspP2} é_i [_{Asp2} t_j [_{AspP} t_i [_{Asp} ag [_{VP} t_i dul abhaile]]]]]]]]]

The semantic function of *agus* is to mark the temporal overlap between the adjunct and matrix events while the semantic function of *ag* is to indicate the progressive aspect of the activity denoted by the verb. As argued above, movement of *agus* to C takes place regardless of whether C contains *gan* or not. The only context in which *agus* remains under Asp is in examples like (62)a&b where there is no evidence of a CP layer on the SC. *Agus* arguably moves to C therefore in order to scope over the whole of the SC. When there is no C this can be achieved without movement and so *agus* remains in situ.

To sum up this section, underlying structures have been proposed for a range of SCs containing subordinating *agus*, on the assumption that *agus*, in this environment, is inserted into Asp: when the *agus*+SC phrase appears in complement position (e.g. to *tá/be* or to adjectives like *minic*) *agus* remains in Asp, unless, it is argued, the SC is negated by the complementiser *gan* (in which case it moves to C, forming a morphological compound with *gan*). In *agus*+SC adjuncts, on the other hand, it is concluded, on the basis of the position of *agus* in relation to *gan*, and of the potential of adverbs to intervene between the subject and the lexical CFC, that *agus* uniformly moves from Asp to C. In the next section the issue of subject Case-licensing within the structures proposed above will be addressed.

4.5 Subject Case-licensing in SCs: two alternatives to default Case

The fact that SCs containing *ag* or *agus* are analysed above as AspPs, while for Chung and McCloskey (1987) they are bare lexical projections, leads to a fundamental difference between the two approaches in terms of potential to account in a principled way for subject Case-licensing. In the case of the latter, the absence of any functional structure on the SC (other than *gan*), together with the evidence against Case-licensing via an ECM configuration, makes default Case, effectively, the only option. Below an alternative is proposed based on the assumption that uninterpretable features can not only be checked in a standard checking configuration, but can also be eliminated via 'M-merger' on the way to PF, as proposed in Adger (1996)a.⁹³

The first step below will be to explain what is meant by 'M-merger' and to show how it allows the uninterpretable D features of the subject of Irish finite clauses to be eliminated on the way to PF, as proposed in Adger (1996)a (4.5.1). A brief discussion of the advantages of this approach over one relying on checking in a standard checking configuration follows (4.5.2). Subject Case-licensing in the SC structures described in the previous section will then be shown to involve both M-merger and checking in a standard checking configuration, depending on an interaction between the kind of Asp head projected (i.e. one realised as *ag* or *agus*) and the position of the subject in relation to it (i.e. in the specifier of Asp or the specifier of the complement of Asp) (4.5.3). The structure of SCs without *ag* or *agus* will then be briefly considered: when these occur as complement either to a lexical head or *tá*/be they will also be analysed as AspPs (4.5.4). Finally, we address certain outstanding issues concerning the motivation behind positing two distinct Case-licensing mechanisms for the subject of Irish SCs, with a focus on those structures in which, it is argued, both mechanisms operate simultaneously (4.5.5).

⁹³See also Adger (2000) for a later version of this paper.

4.5.1 M-merger (Adger 1996a) and the elimination of D features in Irish finite clauses

Adger proposes that uninterpretable features can be eliminated on the way to PF in the morphological component via a process called Morphological Merger (M-merger). What this means is that the head of a phrase (e.g DP) bearing uninterpretable features (e.g category and Case) can merge with an adjacent head, which does not share those features, so that the two are morphologically analysed as a single word and the uninterpretable features are hidden from the PF component. In this way the morphology is understood to act as a filter on the syntactic representation. The notion of adjacency, as it applies to M-merger, is made explicit in the following reanalysis rule:⁹⁴

- (74) In a structure [H1 H2..] M-merge H1 and H2 iff there is no syntactic category intervening between H1 and H2

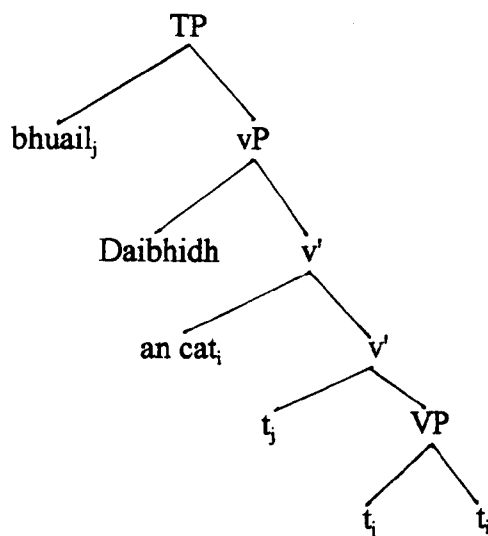
M-merger is invoked by Adger to explain how the uninterpretable D features of the subject in a SG finite clause, exemplified in (75)a below, are eliminated - the corresponding tree structure in (75)b shows the subject in its base position, [Spec,vP], from where it M-merges with the verb in T (the verb has moved to T from V, via v):⁹⁵

- (75) a. Bhuail Daibhidh an cat
Strike-past David the cat-dir
'David struck the cat'

⁹⁴Adger's (30).

⁹⁵(75a) is his example (3). (75)b is his (9) (slightly modified). Note that the structure assumed by Adger for SG and Irish finite clauses has a light verb which takes a VP complement. The light verb has an outer and an inner specifier: the subject, as indicated, is inserted into the former, while the object moves to the latter from within VP (it originates as right sister V).

b.



Three fundamental points of information about M-merger must be noted here: the first is that a trace intervening between the two heads will cause the derivation to crash, since traces count as being specified for syntactic category ((74), above, rules out an intervening syntactic category)); the second concerns the circumstances which determine whether or not M-merger is available in a given language: a typological distinction is proposed such that in some cases (i.e in SVO languages like English) finite T checks D features in a checking configuration, and there is no M-merger, while in others T does not check D features (i.e in VSO languages like Irish and SG) and so M-merger applies; in others again (i.e Semitic languages, which exhibit both SVO and VSO word order (see Benmamoun 1995)), both checking in a checking configuration and checking via M-merger are available. The third is that in contexts where a subject actually moves into a position adjacent to the element it merges with (in contrast to (75) above), this movement is understood to be motivated, not by the requirement that the higher head check its features, but rather, in order that the D features of the subject can be eliminated i.e a weakened version of Last Resort as proposed in Chomsky (1995:280) is assumed.⁹⁶

⁹⁶Adopting a weakened version of Last Resort (in conjunction with M-merger) has a distinct advantage in analyzing certain unaccusative constructions, termed 'putative' and 'salient' unaccusatives, respectively, in McCloskey (1996). In a putative unaccusative construction, illustrated in (i)a below, the single argument of the verb moves for checking from its base position as complement to V, to canonical subject position; in a salient unaccusative construction, as in (i)b, the single argument of the same verb surfaces as object of P (where the PP is complement to V):

Consider now the advantages of an account of Irish finite clauses invoking feature elimination via M-merger between V and the subject, over one in which uninterpretable features must be checked in a standard checking configuration.

4.5.2 Advantages of M-merger versus checking in a standard checking configuration

There is a well known adjacency effect in operation in Irish (see Chung and McCloskey 1987) and SG (see Adger 1996a), prohibiting elements from intervening between the verb and the subject of finite clauses, neither arguments nor adverbs being permitted between the two. If uninterpretable features in Irish and SG can be eliminated via M-merger (here, specifically the D features of the subject of a finite clause), as proposed by Adger, then the adjacency restriction is actually predictable. It should be noted, however, that there are some minor differences between SG and Irish, with regard to the possibility of parentheticals intervening between the finite V and the subject. Adger claims that in SG parentheticals are completely barred in this position, as illustrated in the contrast between (76)a&b, below:⁹⁷

- (76) a. Dh'fhag Daibhidh, tha mi cinnnteach, an de
 left-past David, be-pres I sure, yesterday
 'David, I'm sure, left yesterday'

-
- (i) a. Neartaigh a ghlór
 strengthened his voice
 'His voice strengthened'
 b. Neartaigh ar a ghlór
 strengthened on his voice
 'His voice strengthened'

McCloskey proposes that movement of the subject in (i)a is motivated by a 'strong' feature of a higher head i.e Agr. Since in (i)b the features of the subject are checked by P, the Agr head with the strong D feature must therefore be absent in this example - in other words it is optionally drawn from the lexicon, and it only appears, effectively, in order to force 'subject' movement. On Adger's account, on the other hand, no AgrP is needed: the single argument in (i)b moves for its own purposes i.e to have its D features checked (via M-merger with the verb) when there is no preposition in the derivation to check them. Adopting a weakened version of Last Resort, in conjunction with M-merger, therefore, means that the additional functional structure, which arguably has no interface motivation, can be avoided.

⁹⁷His (28) and (29) respectively.

- b *Dh'fhag, tha mi cinnteach, Daibhidh an de
left-past, be-pres I sure, David yesterday
'David, I'm sure, left yesterday'

Chung and McCloskey, on the other hand, claim that in Irish this prohibition is not absolute i.e certain parentheticals can be interposed between the verb and the subject, provided the subject is a full NP, as in (77)a, below, and not a pronominal, as in (77)b:⁹⁸

- (77) a Tá, ar ndóigh, saighdiúirí ar an bhealach
be(pres) of course soldiers on the road
'There are, of course, soldiers on the road'
- b *Tá, ar ndóigh, siad ar an bhealach
are of course they on the road
'They are of course on the road'

Although examples like (77)a might seem to undermine the claim that subject Case-licensing in Irish takes place via M-merger, as the following examples illustrate, parentheticals in English, also, can intervene between elements otherwise apparently required to be adjacent, verbs and their direct objects being a case in point:

- (78) a. *John likes a lot cats
b. *John likes sometimes cats
- (79) a. John likes, believe it or not, CATS ...but he wouldn't buy one
b. John LIKES, of course, cats....but he wouldn't buy one

Given the general assumption in GB theory that Case-assignment by a lexical head, in English, requires adjacency in addition to government, the grammaticality of (79)a&b (in contrast to (78)a&b) is not expected.⁹⁹ Pursuing the point further, notice that in (80)a, below, the parenthetical *what else would you expect* inserted between the verb and the embedded subject of an ECM configuration is (arguably) more acceptable than the same example with a VP adverb in place of the parenthetical, as in (80)b (the latter, in turn, can be contrasted with the perfectly grammatical (80c), where adjacency with matrix V is not required):

⁹⁸Their (133a) and (134a) respectively.

⁹⁹Stressing individual words cannot save (78)a&b.

- (80) a. The mother believes, *what else would you expect?* her SON to be the victim and the dead man to be the assailant
 b. ?*The mother believes *firmly*, her son to be the victim and the dead man to be the assailant
 c. The mother believes, *firmly*, that her son is the victim and the dead man the assailant

The same pattern is illustrated again below for *believe it or not*.¹⁰⁰

- (81) a. The mother declared, *believe it or not*, her SON to be the victim and the dead man to be the assailant
 b. ??The mother declared *loudly*, her son to be the victim and the dead man to be the assailant
 c. The mother declared *loudly*, that her son was the victim and the dead man the assailant

In spite of the existence of examples like (79)a&b, (80)a and (81)a, it nevertheless seems reasonable to consider well-founded the claim that Case-licensing, in these environments generally, requires adjacency. For the same reason, examples like (77)a should not be considered significant evidence against M-merger in Irish finite clauses.

A second fact about Irish, this time relating to agreement between finite verbs and subjects, also receives a more plausible explanation if M-merger rather than standard checking is assumed: McCloskey and Hale (1984) observe that 'null subjects' are permitted in Irish finite clauses when the verb is inflected for person and number (i.e when it is 'synthetic'), as in (82) below:^{101,102}

- (82) Dá gcuirfeá isteach ar an phost sin gheobhfá é
 if put(cond.S2)in on job that get(cond.S2)it
 'If you applied for that job you would get it'

The verb must categorically be uninflected for person and number (i.e 'analytic') if the

¹⁰⁰The fact that the parenthetical in both sets of examples actually contains an ECM verb should not effect the result, because the infinitive clause is interpreted as a complement of matrix V, not the verb in the parenthetical (notice that it is the main clause which is interpreted as the complement of the latter).

¹⁰¹McCloskey and Hale (1984:488), example (1).

¹⁰²Synthetic forms do not exist for all person-number combinations. When they do not exist the paradigm is filled out through the use of the analytic (i.e uninflected) form with independent pronominal subjects (McCloskey and Hale 1984).

subject is overt. Examples like (83), below, therefore, with a synthetic verb and an overt pronominal subject, are not allowed:¹⁰³

- (83) *Chuirfimis muid isteach ar an phost sin
put(cond.P1) we in on job that
'We would apply for that job'

In this respect, Irish differs from many Romance languages with null subjects, since these do, in principle, allow overt pronouns to occur with person-number marking on the verb (for emphasis or contrastive focus), although generally the two do not co-occur. Observe now how the absolute prohibition on a synthetic verb co-occurring with an overt pronominal receives a very plausible solution on the assumption that the subject M-merges with the verb on the way to PF.

Adger proposes that in examples like (82) a pronoun has merged with the verb on the way to PF causing the lexicon to supply a verb inflected, accordingly, for person and number features (if a synthetic verb form were not available the analytic form would appear with the overt pronominal). The pronoun is therefore actually present syntactically when the synthetic verb occurs, so that if an independent pronoun appears at the same time, as in (83) above, the theta-criterion is violated. Of course, an account of (82) in which the pronoun incorporates into the verb in the syntax would produce the same effect i.e a theta-criterion violation if the overt pronominal and synthetic verb were to co-occur. However, as will be demonstrated directly below, there is strong evidence against a syntactic incorporation account.

A striking feature of subject-verb 'agreement' noted in McCloskey and Hale (1984) is that the finite verb shows the person and number features of the left conjunct of a co-ordinate subject. This is illustrated in (84), below, where a second person singular inflection appears on the verb, corresponding to the features of the second singular, left conjunct:¹⁰⁴

¹⁰³McCloskey and Hale (1984:490), example (6b).

¹⁰⁴Their example (32).

- (84) *Dá mbéitheá féin agus Rachel ag gabháil i gcleamhnas*
if be(cond.S2) reflex and Rachel go(PROG) in engagement
'If you and Rachel were getting engaged'

If (84) were to be accounted for in terms of an operation in the syntax e.g incorporation of the pronominal subject into the head occupied by the verb, it would constitute an exception to the Co-ordinate Structure Constraint.¹⁰⁵ On an M-merger account, on the other hand, this is just what is expected: the pronominal subject (i.e the left conjunct) merges with the verb under adjacency so that verb and pronoun are analysed as a single word.¹⁰⁶

Summing up the advantages of positing M-Merger in Irish between finite V and the subject: i) it is in keeping with the well-known adjacency restriction between the two; ii) it can explain why the synthetic verb forms do not occur with an overt subject; iii) it can accommodate the fact that in examples like (71) the finite verb agrees with the leftmost conjunct of a coordinate subject, unlike a syntactic incorporation account of verb-subject agreement.¹⁰⁷

In the next subsection, we turn to our analysis of subject Case-licensing in Irish SCs containing *ag* or *agus*. It will be argued that the Case-feature of a subject can either be eliminated via M-merger, as outlined above for finite clauses, or checked in a spec-head configuration, both mechanisms operating simultaneously in structures where two SCs (one a bare lexical projection, the other with functional structure) are embedded in a single finite clause.

¹⁰⁵See Adger 1994 for evidence that Irish and SG heads are subject to this constraint.

¹⁰⁶Adger suggests tentatively that the D features of the second conjunct might be eliminated via M-merger with *agus* (which, as might be expected, does not have a synthetic form). Given our evidence further below that non-co-ordinating *agus* undergoes M-merger with a SC subject this would seem to be a very plausible proposal.

¹⁰⁷In Chapter 5 the prohibition on the co-occurrence of inflection for person and number and an overt pronominal will also be shown to apply to agreement in NI non-finite clauses (i.e between a preposed direct object pronoun and an agreement head *aL*). Since we will assume that, unlike here, checking in such cases takes place in a spec-head configuration in AgrOP, the claim above that the non-co-occurrence of inflection and overt pronominal should be accounted for in terms of M-merger might seem to be weakened. However, a syntactic incorporation account of the prohibition is possible in non-finite clauses while, as argued above, this is ruled out in finite clauses by the Co-ordinate Structure Constraint.

4.5.3 Applying the theory to the data

SC adjuncts provide us with a first example of subject Case-licensing via M-merger in Irish SCs. Assuming that these have the structures proposed in 4.4 above, repeated in (85)a&b, below, we propose that in both cases the subject in [Spec, AspP] M-merges with the element (in C) adjacent to it (in (85b) this is a compound of *agus* and *gan*), thereby eliminating its Case feature:

- (85) a. $[_{CP}[c'agus_j [_{AspP}é_i [_{Asp}t_j [_{PP}t_i ar an bhealach 'na bhaile]]]]]$
 b. $[_{cP}[C'agus_j gan [_{AspP2}muid_i [_{Asp2}t_j [_{AspP}ach [_{AspP}t_i [_{Asp}ag [_{vP}t_i toiseacht]]]]]]]]]$

The key observation in support of this proposal is that, just as in a finite clause the subject and verb must be adjacent to one another in order for M-merger to apply (with the exception, as noted above, of certain parentheticals), elements intervening between C and the subject in examples like (85)a&b are also prohibited, subject to the same proviso. This cannot be confirmed by testing adverbs in general in the intervening position since, as noted above, these are typically located sentence finally in Irish. Simply noting that *aréir*/last night and *anuraidh*/last year cannot occur here, therefore, would not actually prove our point, since these are only expected to appear sentence finally.¹⁰⁸

An adverb like *i gcónaí*/always, on the other hand, is more useful, since it is one of the few which can actually be placed other than at the end of a sentence (see (68)&(69a)above). As illustrated below, although *i gcónaí* is grammatical between the subject and the predicate of an *agus*+SC adjunct ((86a) is repeated from above), it is unacceptable between *agus* and the subject ((86b)):

¹⁰⁸However, the fact that they are prohibited here is not irrelevant to the issue, either, for the following reason: if for each position where *aréir*/last night and *anuraidh*/last year are not allowed (e.g between subject and predicate) there is a different reason why this should be the case, then the need for M-merger between the subject and C or the subject and finite V could be the reason behind the prohibition in these particular positions. The same adverbs could be ruled out in other positions because of other factors.

- (86) a. Níor thaitin sé liom [agus é i gcónaí ar meisce]
 not pleased he to-me and him always drunk
 'I didn't like him because he was always drunk'
 b. *Níor thaitin sé liom [agus i gcónaí é ar meisce]

The contrast between the two supports the claim that C in these adjuncts, like V in a finite clause, must be adjacent to the subject for the elimination of uninterpretable D features. The parenthetical *ar ndóigh*/of course is again the exception, being considered acceptable in the intervening position (but odd, for some speakers).¹⁰⁹

- (87) Bhuail me leis [agus, ar ndóigh, é ar an bhealach 'na bhaile]
 Met I him and of course him on his way home

For the reason already given in the previous subsection, (87) does not, in our view, constitute significant evidence against an M-merger analysis.

Consider, now, some examples of the subject of a SC being Case-licensed in a standard checking configuration. (88), below, shows the structure argued for above for a sentence in which a SC with a predicate headed by *ag* occurs as complement to a perception verb:

- (88) Ní fhaca mé ariamh [_{Asp}an fear sin_i [_{Asp}ag [t_iobair]]]
 Neg saw I ever man that prog(ptc) workVN
 'I never saw that man working'

As already noted in 4.1, Case-licensing via ECM is unlikely in SC complements to a lexical head, not only because in examples like (88) an adverb can intervene between matrix V and the SC subject (here *ariamh*), but also because the other lexical heads which select SC complements are not expected to be potential Case-licensors (e.g the adjective *mininc*/often or the impersonal verb *tarlaigh*/happen).

¹⁰⁹Unlike in Chung & McCloskey's examples of exceptions to the adjacency restriction between V and the subject in finite clauses, there would seem to be no distinction here between examples with pronominal versus lexical NP subjects (recall that in finite clauses an intervening parenthetical is only possible if the subject is a lexical NP).

The possibility that the functional head *ag* might, like finite T in English, be able to independently Case-license a subject in its specifier is also not a plausible option: notice that if a SC headed by *ag* appears as an adjunct (to CP), as in (89)a below, a lexical NP subject is not Case-licensed in [Spec, AspP]; in order for a lexical NP subject to be grammatical a dummy preposition *do* must be inserted to Case-license it, as in (89)b:¹¹⁰

- (89) a. *[Síl *ag* teacht 'na bhaile], bhí mo mháthair *ag* dul-VN a
 Síle ptc(PROG)come-VN home was my mother ptc(PROG)go to
 lui
 bed
 'As Síle was coming home, my mother was going to bed'
- b. [*ag* teacht 'na bhaile *do* Shíle], bhí mo mháthair *ag* dul-VN a
 ptc(PROG)come-VN home to-Síle was my mother ptc(PROG) go to
 lui
 bed

The contrast in terms of grammaticality between (88) and (89)a suggests that Case-licensing for the SC subject is in some way dependent on the subject being in a particular configuration with matrix V, although V is not actually the Case-licenser. In fact, Chung and McCloskey (1987) argue that the subject of a SC complement to a lexical head (which, on their account, gets default Case) is in a position that is governed by that head.¹¹¹ On a minimalist approach, however, an alternative account of the syntactic relationship between the lexical head and the specifier of its complement is called for - this is readily available, in our view, given certain conclusions reached in Chapter 3 relating to the temporal

¹¹⁰Recall from 4.2.2 above that (89b) is an example of so called 'Predicate-raising' (Doherty 1996), in which the predicate moves to a position preceding the subject.

¹¹¹The fact that the pronominal subject of a SC complement to a lexical head can be postposed, as illustrated below, is cited by them as evidence that the subject position is properly governed by matrix V(their (57b)):

- (i) Chuala mé [t *ag* béicfidh le chéile go feargach
 hear(Past) I scream(Prog)to-each-other angry
 sa dorchadas iad]
 in-the darkness them
 'I heard them screaming angrily at one another in the darkness'.

In contrast to (i), postposing of the pronominal subject of an *agus*+SC adjunct is not allowed:

- (ii) **Agus t ina sheasamh é*
 and standing him
 'While he was/is standing'

The ungrammaticality of (ii) is attributed to lack of 'proper government' by *agus* (because it is not a lexical governor).

relationship between a matrix verb and its AspP complement in English (i.e the *NP+V-ing gerund*).

Recall the observation there that when a perception verb selects an AspP complement the matrix and the embedded event must be interpreted as contemporaneous, which in turn led to the proposal that there is a Tense feature on the Asp head which is a syntactic reflex of the temporal relationship between matrix V and its gerund complement. Crucially, it was argued that the subject is Case-licensed, not via ECM, but in a spec-head configuration via the proposed T feature on the Asp head. This account of subject Case-licensing in English AspP complements to V can be extended naturally to SC complements of perception verbs in Irish: we propose, therefore, that these SCs also have a tense feature on the Asp head and that Case-licensing takes place, not by default, as assumed by Chung and McCloskey, but via checking in a spec-head relation in AspP via the proposed T feature.

In contrast to (88), notice that when the SC is complement to *tá/be*, as in the following example repeated from above, no T feature is predicted on the head (here C) and consequently a subject is not expected to be Case-licensed in the specifier:

- (90) *Bhí sí* [_{CP}t_i [_C*agus*_i *gan* [_{AspP}focal_j [_{Asp}t_i [_{t_j} *aisti*]]]]
 was she and not a word from her
 'There was not a word from her'

This is exactly what we find: because *tá/be* is not lexical, and the T feature proposed is specifically associated with lexical properties of the matrix predicate, the subject (inserted into [Spec,CP]) must move for Case-licensing to canonical subject position of finite clauses. The subject of the lexical CFC (*focal*), on the other hand, moves into [Spec,AspP] where it is Case-licensed via M-merger under adjacency with C, as proposed for the subject of *agus+SC* adjuncts, above.¹¹²

¹¹²As in *agus+SC* adjuncts, you do not get elements intervening between *agus gan* and the subject of the lexical CFC, which would block M-merger:

(i) **Bhí sí agus gan i gcónaí focal aisti*

Having demonstrated that the subject of a SC in Irish can, in principle, be Case-licensed either via M-merger, as in *agus*+SC adjuncts (or complements to *tá/be*), or in a standard checking configuration, as in SC complements of perception verbs, headed by *ag*, we turn next to a context in which, it will be argued, both mechanisms apply simultaneously, namely, when *agus*, rather than *ag*, heads a SC complement to a lexical category. The structures proposed above for examples of this kind are illustrated again here:

- (91) a. Ni fhaca me ariamh [_{AspP}Máire [_{Asp}*agus* [eagla uirthi]]
 not saw me ever Mary and fear on-her
 b. Ba mhinic [_{AspP}Eoghan [_{Asp}*agus* [eagla air]]]
 Cop(Past) often Owen and fear on-him

The fact that in (91)a&b *agus* and the subject of the lexical CFC following it are always adjacent to one another, suggests that subject Case-licensing, here again, takes place via M-merger of the two. Providing ungrammatical examples, in which adverbs appear in the intervening position, in order to support this view, is difficult, because the most relevant ones (i.e. *i gcónaí*/always, *riamh roimhe*/ever before, *ariamh ó shin*/ever since, *choíche arís*/ever again, *go minic roimhe*/ever before) are temporal modifiers and are incompatible (in terms of interpretation) either with the matrix adverbial in (91)a, or with the matrix predicate in (91)b. (91)a is therefore altered slightly, below, to illustrate the point:

- (92) *Ni fhaca mé Máire *agus* riamh roimhe eagla uirthi
 not saw me Mary and ever before-it fear on-her
 'I never before saw Mary afraid'

Notice that adjacency between C and the subject of the lexical CFC might seem to be blocked in examples like (93), below (repeated), in which the AspP complement of a lexical head is negated:

- (93) Ba mhinic [_{CP}Máire [_C*agus*_i gan [_{AspP}t_i [_{PP} focal aisti]]]]
 Cop(Past)often Mary and not word out-of-her

Since, as argued in 4.4, *agus* moves to C to form a compound with *gan*, its trace separates the subject from C. The solution we propose is illustrated in (94), below, showing *focal* in [Spec,AspP] (cf (90) above), having moved there from [Spec, PP], so that Case-licensing

via M-merger takes place, as required, under adjacency:

(94) [_{CP}Máire [_Cagus; gan [_{AspP}focal_j[_t [_{PP}t_j aisti]]]]]

In examples both with and without *gan*, therefore, the conclusion here is that when a SC headed by *agus* occurs as complement to a lexical head, the subject of the lexical CFC is Case-licensed via M-merger with *agus*.

Consider now how the higher subject in each of these examples is Case-licensed i.e the one in [Spec, AspP] in (91)a&b, and the one in [Spec, CP] in (93): the evidence suggests that checking in a standard checking configuration applies in all three cases. In (90)a this is because the same temporal relationship between matrix V and complement AspP which was proposed for (88) above, also holds here i.e the matrix and embedded events must be interpreted as contemporaneous. The only difference is that in (91)a the Asp head is realised as *agus* rather than *ag*. The obvious conclusion is, therefore, that this Asp head also Case-licenses a subject in its specifier via a T feature of the kind proposed for gerund complements in English and for AspP complements of perception verbs in Irish.¹¹³

Moving on, now, to the higher subject in (91)b, where the matrix predicate is not a perception verb, a similar account becomes available in view of the lexical properties of this predicate, and others of its kind. The following examples of other adjectives which, like *minic*/often, select SC complements are cited in Chung and McCloskey (1987): *annamh*/rare, *tuisce*/sooner, *gnáthach* /usual, *fada*/long and *gairid*/short. (95), below, shows the first of these taking a SC complement:¹¹⁴

¹¹³Recall from 4.5.1 that M-merger involves the elimination, on the way to PF, of a strong feature when the word bearing it merges with an adjacent word lacking such a feature. *Agus* can allow the Case-feature of the SC subject to be eliminated via M-merger because it does not itself have an inherent Case feature. No anomaly arises, therefore, when the Asp head that generates *agus* then checks the Case-feature of the higher subject in a spec-head configuration, via a T feature linking it with the matrix predicate.

¹¹⁴Their (14)a.

- (95) Ba annamh [mo dheartháir sa bhaile]
 Cop(Past)rare my brother at home
 'My brother was rarely at home'

The most striking property shared by all of these adjectives is the fact that they can be said to give rise to an operator in the semantics, in the form of an adverb of quantification, along the lines proposed for *when* clauses in Kratzer (1989). The following are therefore possible logical representations of (91)b and (95), respectively:

- (96) a. often_x [time (x)][afraid (Eoghan, x)]
 b. rare_x [time (x)][at home (my brother, x)]

Our conclusion is, therefore, that the adjectives which select SC complements of this kind, like perception verbs, are temporally related to their complements in a way which justifies positing a tense feature on the head of the complement as a syntactic reflex of the semantic relationship between the quantifier and the event argument in the logical representation.¹¹⁵

To sum up this subsection, it has been demonstrated that subject Case-licensing in Irish SCs can take place via M-merger alone, as in *agus*+SC adjuncts, or in a standard checking configuration alone, as in a SC with *ag*, appearing as complement to a perception verb, or via both mechanisms simultaneously, as in *agus*+SC complements to a lexical head. In the next subsection we consider subject Case-licensing and underlying structures for SCs without either *ag* or *agus*.

4.5.4 SCs without *ag* or *agus*

The SC complements to a lexical head and to *tá*/*be*, respectively, in (97)a&b below, neither of which contain aspectual morphology, are examples of the kind under

¹¹⁵When the same predicates take a finite clause complement (i.e. TP) then the tense feature does not appear because the complement has its own tense projection.

consideration here:¹¹⁶

- (97) a. Ba mhinic [Eoghan sa teach]
Cop(Past) often Owen in-the house
'Owen was often in the house'
b. Tá eagla, [t̪ orm]
be-pres fear on-me
'I am afraid'

There are two distinct advantages to assuming that the underlying structure of SCs like the one in (97)a is similar to that proposed above for the corresponding examples with *ag* or *agus*,¹¹⁷ in which the lexical CFC is dominated by an AspP layer with a T feature on the head. The first is that it captures the fact that only a limited set of predicates selects SC complements, and that these have specific lexical properties in common which restrict the temporal interpretation of the SC complement. For example, perception verbs and verbs like *tarlaigh*/happen refer to events which are obligatorily interpreted as taking place at the same time as the event described by the SC complement (contrast this with verbs like *deir*/say or *ceap*/think, which do not select SCs and do not restrict the temporal interpretation of a clausal complement). Similarly, the non-verbal lexical heads which select SC complements e.g. *minic*/often and *gnáthach*/usual can be analysed as adverbs of quantification in the semantics, and so also share a lexical property which is temporal in character and affects the interpretation of the SC complement accordingly.

The second main advantage of positing the same structure for (97)a as proposed for SCs with *ag* or *agus* is that it makes available an alternative account of subject Case-licensing to one invoking a default mechanism i.e. checking in a spec-head configuration via a T feature on the Asp head.

Turning now to (97)b, we assume that the subject of the bracketed phrase here is Case-licensed via M-merger with the finite verb under T, like the subject of finite clauses generally. This is consistent with the proposal in McCloskey and Sells (1988) that subject

¹¹⁶(97a) is (3b) repeated from above.

¹¹⁷See footnote 72 (i)a&b above.

Case-licensing in examples of this kind operates in exactly the same way as in finite clauses.¹¹⁸ It is also in keeping with the claim above that since *tá/be* is not lexical there should not be a T feature on the head of its SC complement. Assuming further that the syntactic category of the SC complement in (97)b is the same as that of all the other SCs discussed above, then *tá/be*, here, also selects an AspP complement.

Thus, SCs without *ag* or *agus* are also AspPs. When the selecting head is lexical, Asp Case-licenses a subject in its specifier (via the proposed T feature);¹¹⁹ when it is *tá/be* then the subject in [Spec, AspP] M-merges with the verb in finite tense (as assumed in finite clauses generally). In the final subsection we address a number of specific issues arising from our claim above that there are two subject Case-licensing mechanisms involved in *agus*+SC phrases.

4.5.5 Two subject Case-licensing mechanisms: spec-head and M-merger

The theory employed above to explain subject Case-licensing in Irish SCs raises the following important questions which are worthy of further comment here in the light of the analysis as a whole: i) What is the empirical and theoretical motivation for invoking two completely different subject Case-licensing mechanisms i.e standard checking (in a spec-head configuration) and M-merger, simultaneously, in certain *agus*+SC phrases and why, in these phrases, is the *agus* which M-merges with the subject (right-adjacent to it)

¹¹⁸On their account, of course, subject Case-licensing in finite clauses takes place in a standard checking configuration.

¹¹⁹In examples like (i), below, where the SC complement to a lexical category is a CP, the proposed T feature is on C, since this is the selected category ((37) from Chung and McCloskey 1987):

- (i) Ba mhinic [gan é sa teach]
 Cop (Past) often Neg him in-the house
 'He was often not at home'

Since the subject is not in [Spec, CP] at Spell-out its Case feature presumably raises to C at LF for checking. M-merger with *gan* is not ruled out, here, in principle, but checking is more likely to take place in a standard checking configuration on the assumption that the Case feature on C (associated with the proposed T feature) must also be checked.

not T rather than Asp?¹²⁰(5.1); ii) What exactly is the relationship between checking in a spec-head configuration in AspP and checking via M-merger with an Asp head *agus*?(5.2)

4.5.5.1 Simultaneous Case-licensing of a second subject via M-merger with *agus* (Asp)

It should be evident from the discussion in the previous section that there are certain contexts in which *agus*+SC phrases appear where a plausible alternative to invoking M-merger (in addition to standard checking), for SC subjects, is not available. (98) below (repeated from above) in which, it has been argued, the two mechanisms operate simultaneously, is an example of the relevant kind:

- (98) Ba mhinic [_{Asp}Eoghan [_{Asp}*agus* [eagla air]]]
 Cop(Past) often Owen and fear on-him
 ‘Owen was often afraid’

In (98) *agus* combines with a SC to form the predicate of a higher SC. Recall from above the proposal that the subject of a ‘simple’ SC complement to *minic* (i.e a SC complement whose predicate is not a CFC) is Case-licensed from within the SC i.e not via an ECM property on the selecting head (*minic*):¹²¹

- (99) Ba mhinic [Eoghan ar meisce]
 Cop(Past) Eoghan drunk
 ‘Eoghan was often drunk’

Given our assumption that this SC is not a bare lexical projection i.e that it has functional structure which is in some way linked to Case-licensing of the subject, whatever mechanism is involved in the subject Case-licensing process in (99) arguably also comes into operation for the subject of the (higher) SC in (98).¹²² This is an issue which we will

¹²⁰This would allow a parallel to be drawn with subject Case-licensing in matrix clauses along the lines proposed in Adger (1996a) i.e via M-merger with +finite T. The arguments against analyzing *agus* as T in adjunct SCs and in SC complements to *tá*/be have already been presented in section 4.3 above. We return to the issue here in relation to *agus*+SC complements to a lexical head in which, we have claimed, the two mechanisms operate simultaneously.

¹²¹As noted above, the general view in the literature is that ECM is not involved here (e.g Chung & McCloskey 1987).

¹²²It could of course be claimed that the SC in (99) is a bare lexical projection and that the subject is Case-

return to shortly below. However, the more difficult question, which we address first here, is how the subject of the lower SC in (98) is Case-licensed.

It seems clear that *agus* is implicated in this process, since omitting it leads to ungrammaticality:

- (100) *Ba mhinic Eoghan eagla air
 Cop(Past) often Owen fear on-him

Two ways in which the lower SC subject could be Case-licensed are worth considering here, only the second of which in our view has any real plausibility. The first is that there could be a+finite T within the *lower* SC, as in (101) below:

- (101) Ba mhinic [Eoghan [*agus* [_{TP}eagla [_Tair]]]]
 Cop(Past) often Owen and fear on-him

The subject of the SC, on this approach, would be Case-licensed in the specifier of T, like the subject of a matrix clause in SVO languages generally. However, not only would this run counter to the general view in the literature (reviewed above) that these SCs are not (+finite)TPs, but it would also be difficult to reconcile such an analysis with the fact that Irish is a VSO language i.e. +finite T in matrix clauses seems not to Case-license a subject overtly in a standard checking configuration. Why it should do so in SCs of the kind under discussion in (98) would therefore be a mystery. Moreover, as already noted above, there would be the further puzzle as to why these hypothetical +finite (small) clauses do not occur in syntactically independent positions (like matrix clauses).

The second, more plausible, way in which the lower SC subject could be Case-licensed is via M-merger with *agus* (as we have claimed above). From a theoretical perspective, the existence of M-merger in addition to standard checking in a spec-head configuration is in itself credible. Recall the proposal in Adger (1996)^a that there is a typological difference

licensed by default. The SC in (98) could then be analyzed as structurally distinct from this. However, our aim from the outset has been to argue against the notion of default Case in Irish SCs.

between languages with regard to subject Case-licensing in finite clauses which is reflected in the potential for a given language to allow either SVO or VSO word order, or both. It is argued that English (SVO only) does not have M-merger for the subjects of finite clauses, Semitic languages (SVO+VSO) have both standard checking and M-merger, and Irish and SG (VSO) have M-merger only.¹²³ Given the evidence cited by Adger that in Irish and SG finite clauses a subject can be Case-licensed via M-merger, the proposal that the subject of a SC might also have its subject Case-licensed in this way is logical.

In particular, if *agus* were +finite T then the analogy might seem to be even more appropriate: not only would subject Case-licensing in these SCs be consistent with subject Case-licensing in +finite matrix clauses but it could also be argued that the subject of the higher SC in (98) is Case-licensed simultaneously in a standard checking configuration i.e in [Spec, (+finite) TP]. This is problematic, however, because it means that once again Irish would have some +finite Ts which are capable of Case-licensing a subject (overtly) in a spec-head configuration (i.e in the higher SC of examples like (98)) and other +finite Ts which are not (i.e in matrix clauses).

More importantly, on this account of subject Case-licensing in (98) Irish would, in principle, be similar to the semitic languages referred to above, in which +finite T can check the features of a subject either in a spec-head configuration or via M-merger (with the difference that here the two mechanisms would operate simultaneously). Even if checking in a spec-head configuration were to be limited to contexts where +finite T is morphologically realised as *agus* (as in (98)), thus correctly ruling out matrix clauses with SVO order, the data could still not be accounted for. This is because an overt subject would incorrectly be predicted to occur before *agus* in *agus*+SC adjuncts (in addition to the subject following *agus*):

- (102) *Ian agus é ar an bhealach ' na bhaile, bhuaill mé leis
 Ian and him on his way home met I him

¹²³The subject of a finite clause in Irish and SG has its formal features checked via M-merger alone. However, in both languages the direct object of a verb can be checked in a standard spec-head configuration (see Adger 1996c).

The problem could perhaps be avoided by arguing that although *agus* is indeed +finite T in (98) (and M-merges with the lower SC subject) the higher SC subject is Case-licensed by some other head above T, for example Asp. However, Asp would then be projected above T, which again is unlikely.

To sum up at this point: in a theory which rejects the notion of ‘default Case’ for SC subjects, simultaneous spec-head checking and M-merger are necessary to account for examples like (98) above. A direct analogy with an M-merger account of subject Case-licensing in matrix clauses might seem attractive i.e one in which *agus* not only M-merges with the SC subject but is also categorially identical (i.e a (+finite) T). However, the evidence against this is strong since it makes incorrect predictions about the potential of +finite T to Case-license a subject in its specifier in Irish, particularly when +finite T would be lexicalised as *agus*. We conclude, as indicated above therefore, that *agus* does Case-license a right-adjacent subject via M-merger but is not a Tense head. Also, that in (98) the higher subject is Case-licensed simultaneously in the specifier of the head into which *agus* is inserted. In the next subsection we explain what exactly the relationship is between checking in a spec-head configuration in AspP and checking via M-merger with the Asp head *agus*.

4.5.5.2 Relationship between spec-head checking in AspP and M-merger with Asp(*agus*)

Two related but distinct kinds of Asp head have been posited in this chapter. Their relatedness lies primarily in the fact that semantically they have a similar function; their distinctiveness comes from the fact that each Case-licenses a subject in a manner which is consistent with its own specific syntactic and morphological properties. Here we draw together the main points made above which support these statements.

The first Asp referred to is the one found in examples like (88),(95) and (99) above, in

which the SC is complement to a lexical head (when the predicate of a SC of this kind is a VN marked progressive, this Asp is morphologically realised as *ag*, as in (88)). We have argued above that the lexical heads which select these complement SCs have specific temporal properties which require that the complement event be interpreted as contemporaneous with the matrix event (e.g. verbs of perception like *feic/see*; *minic/often*; *annamh/rare*; *tuisce/sooner*; *gnáthach /usual*, *fada/long* and *gairid/short*). It has been proposed therefore that the Asp head which Case-licenses the subject has a tense feature which reflects this particular relationship in the syntax. The second Asp head posited is the one which occurs in the adjunct SCs of (44) and (45) above. This is morphologically realised as *agus* and moves to Comp whenever Comp is projected. Its semantic function is to indicate that the Reference Time of the adjunct clause and the main clause is the same. The semantic function of the two Asps therefore is very similar- each indicates a temporal overlap of a specific kind between the event of the SC and that of the main clause. Syntactically and morphologically however they are distinct in certain ways.

Their distinctive syntactic and morphological properties are directly related to the environments in which they occur. For example, the first Asp has a tense feature which is a syntactic reflex of the specific temporal relationship between the complement SC and the lexical head which selects it. Because of the presence of this tense feature a subject can be Case-licensed in [Spec, AspP]. The second Asp posited does not bear a tense feature of this kind, since typically it occurs in non-selected environments.¹²⁴ For this reason, a lexical NP subject cannot be Case-licensed in its specifier in a standard checking configuration. Instead, the formal features of the subject M-merge with *agus* in the manner of lexical NP subjects in a finite clause. In short, since there are two syntactically distinct ways in which the semantic relationship of temporal overlap can be expressed (i.e. via a tense feature associated with a specific selecting verb or adjective, or via the lexical meaning of the Asp head *agus*), it is not surprising that there should be two distinct subject Case-licensing mechanisms also. Finally, we come to the relationship between the two mechanisms when they occur simultaneously in examples like (98).

¹²⁴We deal with examples like (98) above, in which the *agus*+SC phrase *does* actually occur in complement position, separately below.

Given the theory outlined in this chapter, the temporal relationship between the matrix clause and its SC complement should be adequately represented in the derivation via a (non-overt) Asp head with a tense feature. The fact that in addition to this *agus* also appears (under Asp) suggests that the primary function of *agus* here is to Case-license the subject of the lower SC via M-merger and that its semantic function in this environment is minimal. This view is consistent with the fact that speakers, when asked to explain what meaning *agus* contributes to sentences of this kind, fail to do so. In contrast to this, they express no difficulty in answering the same question in relation to examples like (44) & (45) above.¹²⁵

Summing up this section as a whole: an account of subject Case-licensing in Irish SCs has been proposed in which the notion of default Case, in contexts where the SC contains *ag* or *agus*, is rejected, in favour of Case-licensing either in a standard checking configuration (via a T feature on Asp) or by M-Merger. In contexts where there are two SC subjects, both mechanisms are understood to come into operation simultaneously. SCs without aspectual morphology are also analysed as AspPs.

4.6 Conclusion

Our motivation in this Chapter for examining from a new perspective the syntactic function of certain instances of *agus* before a SC, and for integrating the conclusions drawn into the less controversial account of the progressive marker *ag* as Asp-generated, arose from the need to address a number of facts about SCs generally which simply did not add up on previous assumptions. In concluding the discussion, we sum up below the main weaknesses identified in earlier accounts and comment on how effective the solutions offered here are, both from an empirical and theoretical viewpoint.

¹²⁵They paraphrase the adjuncts using the Irish equivalent of the subordinating conjunctions which appear in the translations. When pressed to paraphrase (98) a typical response would be to simply replace the higher SC with a tensed clause e.g. *Ba mhínic a bhí eagla ar Eoghan*/It was often that Eoghan was afraid.

The most obvious anomaly in previous accounts, generally, was that although *agus* before a SC is referred to loosely as a co-ordinating conjunction, the SC it introduces can be interpreted as an adverbial modifier and can move with *agus* to sentence initial position. Its behaviour, in this respect, therefore, looked more like that of a complementiser than a coordinating conjunction. Our claim that the semantic function of *agus* before a SC was to indicate a temporal overlap between the event of the main clause and the event of the adjunct, paved the way for an analysis of *agus* as an Asp generated complementiser. The fact that SC complements to *agus*, unlike clausal complements to non-subordinating conjunctions generally, can occur preceded by *agus* in sentence initial position was therefore no longer an issue.

A second fact which had to be addressed was that the 'conjuncts' cannot be alternated like conjuncts generally i.e the SC cannot be sentence initial so that it is followed by *agus* rather than introduced by it. If we assume that the subject is Case-licensed by default (as proposed by Chung and McCloskey 1987) and that default Case is only available when the subject is governed, the impossibility of reversing the conjuncts can be explained away. However, not only does the notion default Case, in itself, seem unenlightening but the need to restrict it to governed positions is an obstacle within a minimalist framework. On an M-merger account of subject Case-licensing, on the other hand, since the subject must be adjacent to *agus* at PF the conjuncts are not predicted to be reversible, even where simple co-ordination is involved. Apart from the fact that this proposal accounts for the adjacency restriction observed between the two elements, it also allows for a unified approach to subject Case-licensing in SCs and finite clauses, being consistent with the M-merger analysis of the latter proposed in Adger (1996)a.

The distribution of *agus*+SC phrases was a third major issue of concern: it was pointed out that apart from occurring as adverbials they can also appear as complement to *tá/be*, where *agus* apparently forms a predicate phrase with the SC following it. By analysing it as Asp-generated we not only confronted the theoretical implausibility of a co-ordinating conjunction heading a predicate but we also actually predicted that *agus* should be able to occur here, since in languages generally Aspect phrases are widely attested to dominate

lexical CFCs.

Finally, there was the fact that certain elements, assumed in the literature to adjoin to maximal projections only (e.g. *ach/only* and *i gconai/always*), can appear between the subject and the predicate of an *agus*+SC adjunct (indicating that the subject must have moved out of the lexical projection to a higher specifier). Given the independent evidence that *agus* before a SC is Asp-generated (i.e. its semantic function, as well as both syntactic and semantic parallels with English Absolutes) the additional structure was already available on our account.

Chapter 5

Irish Non-finite Clauses, Dialectal Variation and Subject Case-licensing

5.0 Introduction

Three examples of clausal AspPs have been posited in the discussion thus far: English Absolutes in Chapter Two, English *NP/PRO+V-ing* complements to V in Chapter Three, and Irish SCs containing *ag* or *agus* in Chapter Four. Taking as a starting point here the fact that Irish non-finite clauses display a number of characteristics which distinguish them from non-finite clauses in other languages, generally assumed to be TPs (e.g. English and French infinitivals - see Bobaljik and Carnie 1996), it is argued in this chapter that Irish non-finite clauses are also AspPs.¹

Among the properties distinguishing them from English non-finite clauses the following three are the most striking: i) overt subjects are not dependent for Case on ECM from the matrix clause (rather, Case seems to be available from within); ii) the verb form has a number of noun-like properties reflected in the term 'verbal-noun' used to refer to it; iii) they are without a morpheme which might be identified as an infinitival marker of any kind.² Deciding on a structure for these clauses is made more complicated by the fact that certain syntactic differences between Northern and Southern Irish (NI and SI),³ relating to word order and the distribution of the particle *aL*,⁴ must also be accommodated. Although

¹We refer to the structures concerned as 'non-finite clauses' simply because they are generally considered to be the nearest Irish equivalent to non-finite clauses in other languages. They have also been called 'verbal noun clauses' in the literature (e.g. Adger 1996b), a term not adopted here, chiefly in order to preserve a clear distinction between the structures which will be discussed in this chapter and the SCs analysed in Chapter 4, which, as we have seen, can also contain a verbal noun. It should be emphasized that no particular functional structure (e.g. TP) is implied in the use of the term 'non-finite clause'.

²See Adger (1996b) for arguments in support of this claim.

³The terms Northern and Southern Irish are used here to refer mainly to Ulster and Munster Irish respectively i.e. the data discussed generally comes from speakers of these areas (sources as indicated in the text).

⁴See Chapter 4, footnote 17, on the *L* following the particle *a* here.

accounts of the dialectal variation found in the literature succeed, to varying degrees, in describing the data, it will be argued here that, on the whole, the differences proposed are of an arbitrary kind and that an alternative, more explanatory analysis is called for.

The main objective of what follows, therefore, will be to propose a structure for non-finite clauses in both dialects which takes the non-TP-like properties referred to above into account and to provide a more plausible explanation than those on offer in the literature thus far for the differences between NI and SI relating to word order and the distribution of the particle *aL*. The chapter will be structured as follows:

Section 5.1 provides a brief introduction to the structure of Irish non-finite clauses, focussing in particular on word order differences between NI and SI.

Section 5.2 reviews a 'pre-split Infl' (i.e. pre-Pollock 1989) approach to the analysis of Irish non-finite clauses in which non-finite verbs are understood to be constructed from VNs via morphological rules and then inserted into the derivation (together with the particle *aL*, where appropriate) at V° level (McCloskey 1980, Chung and McCloskey 1987, McCloskey and Sells 1988). It is argued that although the lexical-functional distinction among categories developed subsequently makes it more plausible to treat *aL*, at least in NI, as an independent functional head rather than as a verbal particle, the notion of a morphological rule of this kind in SI, within a theory which includes M-merger as a feature-eliminating mechanism, has the potential to explain the word order asymmetries identified in 5.1.

Section 5.3 reviews four minimalist approaches to Irish clause structure, Bobaljik & Carnie (1996), Guilfoyle (1994), Noonan (1995) and Carnie (1995),⁵ assessing in particular the progress made by these in eliminating some of the problems inherent in earlier (pre-minimalist) analyses. It is argued that all fail either to provide a plausible explanation for the word order differences between NI and SI non-finite clauses or to explain adequately

⁵Bobaljik and Carnie (1996) is reviewed first because this is a later version of an earlier, shorter paper (Bobaljik and Carnie 1992) with the same title, commented on by Guilfoyle (1994), Noonan (1995) and Carnie (1995). The references by these authors to the earlier paper are equally applicable to the later version.

how the subject of a non-finite clause is Case-licensed.

Section 5.4 demonstrates how the asymmetries between NI and SI non-finite clauses identified in 5.1 can be accounted for within a theory in which *a*L and VN receive distinct categorial analyses in the two dialects and a modified version of the account of M-merger between *a*L and VN proposed in Adger (1996)b is adopted.

Section 5.5 addresses the issue of subject Case-licensing in Irish non-finite clauses. Certain parallels are drawn with subject Case-licensing in English Gerund Clauses and SG 'non-finite clauses'. An examination of the projection headed by *bith/be* in SG, which appears obligatorily (preceded by the particle *a*) following a lexical subject in SG non-finite clauses, leads to the conclusion that it has a counterpart in Irish which is AspP, the head of which Case-licenses a subject in its specifier.

Section 5.6 is the conclusion.

5.1 The Structure of Irish Non-finite Clauses: differences between NI and SI

As already noted in the introduction to Chapter 4, Irish non-finite clauses, generally, have SOV word order, derived from underlying SVO by movement of the object for Case-licensing to a position preceding the verb, which remains in situ in the form of a verbal noun (VN). The potential for preposing of the object in this way is different in northern and southern dialects: in SI it is preposed only if the subject is non-overt, as in (1)a versus (1)b below, while in NI preposing takes place regardless of whether the subject is overt or non-overt, hence the grammaticality of both (1)a&b in that dialect only (examples adapted from O'Siadhail 1989:255-256):

- (1) a. Ba mhaith liom **PRO an doras a phéinteáil** NI SI
COP good with-me the door aL paint-VN
'I would like to paint the door'
- b. Ba mhaith liom **sibh an doras a phéinteáil** NI *SI
COP good with-me you the door-acc aL paint-VN
'I would like you to paint the door'

In SI, therefore, only one overt argument ever appears before VN. If both are overt then the non-finite construction is generally avoided and a finite clause, as in (2)a, below, is used instead. An alternative to this is for the object to remain in situ (giving SVO order), as in (2)b, where it is marked genitive rather than accusative Case.⁶

- (2) a. Ba mhaith liom gur péinteann sibh an doras
 COP good with-me that paint-pres you the door-acc
 'I would like that you paint the door'
- b. Ba maith liom sibh a phéinteáil an dorais⁷ *NI SI
 COP good with-me you aL paint-VN the door-gen
 'I would like you to paint the door'

The distribution of the particle *aL* directly preceding VN (see (1a&b) and (2b)) also varies depending on the dialect concerned: in NI it occurs only when the verb from which the VN is derived is transitive (with the exception of *bith/be*, *tar/come* and *dul/goil/go*), while in SI it occurs with VNs derived from intransitive verbs generally (i.e. not just *bith*, *tar* and *dul*), as illustrated below, as well as transitive ones.^{8,9}

- (3) a. Ba mhaith liom tú a phósadh¹⁰ *NI SI
 COP good with-me you aL marry-VN
 'I would like you to marry'
- b. Ba mhaith liom iad a chruinniú *NI SI
 COP good with-me them aL gather-VN
 'I would like them to assemble'

Moreover, although in SI *aL* occurs in principle before all types of VN, if there are no overt arguments in the clause no *aL* is necessary, as in (4)a&b below. In the same examples in NI, however (i.e. when VN is *teacht/come* or *dul/goil/go* and the subject is PRO), *aL* does

⁶Examples (2) & (3) are from Guilfoyle (1994), who comments (note 2) that none of her informants used the second structure.

⁷Note that post-verbal objects are only possible when the subject (in pre-verbal position) is overt, otherwise the object is preposed (see Carnie 1995:89). Note also that pre-verbal objects are always accusative Case while the post-verbal ones are genitive (in formal registers).

⁸The possibility that *pósadh*(marry) and *cruinniú*(assemble) in these examples are actually transitives i.e. that there is a direct object in the underlying structure of each, is discussed in subsection 2.2 below.

⁹(3a) is from O'Siadhail (1989:258); (3b) is (50) from Adger (1996b).

¹⁰Note that this example has an alternative interpretation in which the overt nominal is the direct object and the meaning is: 'I would like to marry you' (i.e. the verb is understood to be transitive). On the latter reading the sentence would also be grammatical in NI (recall that in NI *aL* occurs with transitive verbs).

occur, as in (4) c&d:¹¹

- (4) a. Ba mhaith liom **PRO teacht** *NI SI
COP good with-me come-VN
'I would like to come'
- b. Abair leis **PRO dul abhaile** *NI SI
tell to-him go-VN home
'Tell him to go home'
- c. Ba mhaith liom **PRO a theacht** NI ?SI
COP good with-me aL come-VN
'I would like to come'
- d. Abair leis **PRO a ghoil abhaile** NI ?SI
tell to-him aL go-VN home
'Tell him to go home'

Note that a lexical NP subject followed by *aL* with the same VNs is grammatical in both dialects, as illustrated for *bith/be* and *tar/come* in (5)a&b, below (from McCloskey and Sells 1988, examples (15)&(4b) respectively):¹²

- (5) a. Ghuigh sí é a theacht slán NI SI
pray-PAST she him-acc aL come-VN safe
'She prayed for him to survive'
- b. Níor mhaith liom ocras a bheith orm NI SI
I wouldn't-like hunger aL be on-me
'I wouldn't like to be hungry'

Thus, even though *aL* typically follows a (preposed) direct object in NI, in these examples it can also follow a subject.

To sum up so far, there are three syntactic differences between NI and SI non-finite clauses, which, in the course of the discussion below, must be explained in a principled way and taken into account in the structures ultimately proposed there: i) in NI there are

¹¹Examples from O'Siadhail (1989:254/255) who says that *aL* is obligatory here in Donegal(=NI) and Connacht Irish. Note, however, that Carnie (1995) provides the following NI example (his 15a), which, if accurate, would seem to be a counter-example to O'Siadhail's claim: (i) Ni thaitneann leat, PRO_i dul ('you are not pleased to go').

¹²McCloskey (1980:85) provides other examples from Ulster Irish (i.e. NI) in which *tar/come* also has a lexical NP subject but, in contrast to (5c&d), *aL* does not appear. He comments that as far as he is able to determine there is no pattern governing the appearance or non-appearance of the particle with these two verbs.

two pre-VN slots available simultaneously for overt arguments, while in SI there is only one; ii) in NI *aL* occurs with transitive VNs only (with the exception of *bith/be*, *tar/come* and *dul/goil/go*), while in SI it can also occur with intransitives; iii) the VN in NI is generally preceded by *aL* before *bith/be*, *tar/come* and *dul/goil/go*, regardless of whether the subject is lexical NP or PRO, while in SI *aL* is not expected with a PRO subject.

In the next section we examine certain ‘pre-split Infl’ claims, originating in McCloskey (1980)a and also adopted in Chung & McCloskey (1987), and McCloskey and Sells (1988), about the structure of Irish non-finite clauses, particularly in so far as this concerns the syntactic position and function of *aL*. The aim will be not only to provide some background to more recent analyses adopting split Infl and minimalist principles (reviewed further below in 5.3), but more importantly because we go on to argue that certain aspects of McCloskey (1980)a can be modified and applied to SI to account for the data in that dialect.¹³

5.2 Pre-split Infl Approaches to Non-finite Clause Structure and the Particle *aL*

We begin with a brief review of the analysis of VN and the particle *aL* found in McCloskey (1980)a, Chung and McCloskey (1987) and McCloskey and Sells (1988) noting in particular the main theoretical difficulties encountered by this earlier approach (5.2.1). Some initial arguments are then presented in favour of adapting McCloskey’s notion of *aL* as sublexical (in NI) to our own analysis of *aL* in SI (5.2.2). Finally we argue that (*aL*)+VN in SI is a nominal rather than a verbal category, contra McCloskey’s analysis of (sublexical *aL*)+VN in NI (5.2.3).

¹³ McCloskey’s analysis was in fact developed specifically to deal with the NI data.

5.2.1 McCloskey (1980)a, Chung and McCloskey (1987), McCloskey and Sells (1988): analysing aL+VN

McCloskey (1980)a proposes that Irish has a class of productive morphological rules which construct various kinds of non-finite verbs from VNs, one of which, as already noted in Chapter 4, is understood to produce progressive VPs by combining the progressive particle *ag* with VN (see Chapter 4, example (5)). Two further rules, cited in (6) and (7) below, are posited to account for the verb forms found in NI non-finite clauses (referred to by McCloskey as infinitival clauses):¹⁴

- (6) From the VN of a transitive verb form an infinitive (i.e. a word of category V[-finite]) according to the following pattern:¹⁵

V[-Fin]

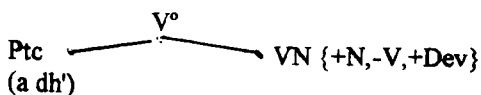


- (7) From the VN of an intransitive verb form an infinitive (i.e. a word of category V[-finite]) according to the following pattern:

¹⁴A third rule gives 'aspectual infinitives' (occurring as complements to verbs like *stad*/stop and *tosaigh*/start) by combining a particle orthographically either *a* before consonants or *a dh'* before vowels with VN, as in (i) below:

- (i) *Stad mé a dh'iascaireacht*
 Stopped I ptc fish-VN
 'I stopped fishing'

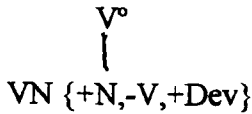
V[-Fin, +ASP]



¹⁵The syntactic trees here, and in (7), below, are adapted from McCloskey (1983) where the original proposals with regard to the construction of 'non-finite' verb forms by morphological rule is restated.

¹⁶Dev signifies 'deverbal'.

V[-Fin]

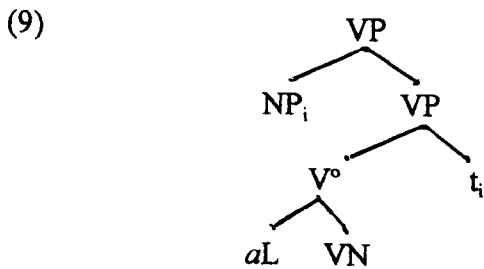


To cover examples with *tá/be*,¹⁷ *tar/come* and *téigh/go*, in which *aL* appears before VN in spite of its not being transitive, the following is added to (6) and (7):

- (8) From the verbal nouns of *tá*, *téigh* and *tar* form infinitives according to the pattern in (6)

Although the rules above clearly make the correct predictions about the distribution of *aL* in NI non-finite clauses, since only those VNs derived from transitive verbs will be preceded by *aL* (exceptions being covered by (8)), the approach as a whole becomes implausible when the syntactic structures to which the theory is ultimately applied are taken into account.¹⁸

The main difficulty concerns the proposed location of the preposed object: Chung & McCloskey (1987), assuming that non-finite verb forms are constructed as in (6) to (8), propose that in (NI) non-finite clauses with a transitive VN (e.g. (1)a&b above) the direct object is Case-licensed in a position left-adjoined to VP, to which it moves from its in situ position as right sister to V° , as in the following:¹⁹



¹⁷Also referred to as *bith*.

¹⁸We by-pass the structures adopted in McCloskey (1980a) here, moving directly to a commentary on those proposed later, in Chung and McCloskey (1987). This is because, contrary to more recent assumptions, the underlying word order in the earlier paper is taken to be VSO rather than SVO (with a rule of 'infinitive postposing' yielding SOV in non-finite clauses).

¹⁹Their (142), adapted.

Although it is argued that the Case-licenser cannot be V itself (on the grounds that V does not govern the preposed object position),²⁰ the exact source of Case-licensing is left undecided. McCloskey and Sells (1988:149), however, building on the earlier proposals, refer to *aL* as an accusative Case assigning verbal particle which signals transitivity in non-finite verbs.²¹

The fact that the 'transitive particle' also occurs with a limited set of verbs which are not transitive i.e. *bith/be*, *teacht/come* and *dul/goill/go* (these are assumed to be unaccusatives) is treated as exceptional, it being assumed that idiosyncratic properties of these verbs cause Burzio's generalisation (Burzio 1986)²² to be overridden: in other words the single (internal) argument is unexpectedly assigned Case by *aL* (which typically Case-licenses the object of a transitive verb) in spite of the fact that none of the verbs concerned has an external argument.²³

The problem with Chung and McCloskey's structure is that Case-licensing of the direct object in VP adjoined position involves A-bar movement, unlike the usual A-movement for Case found in passives and raising constructions (as already noted in Guilfoyle 1994 and Carnie 1995). The more recent notion that syntactic features are checked in functional projections has led to an obvious solution in the later literature (e.g. Carnie 1995, Noonan

²⁰Since a post-verbal object (recall that these are allowed only in SI non-finite clauses) is assigned genitive Case, it is assumed that this is the Case assigned by V; a preposed object, on the other hand, is accusative and so must be assigned Case from some other source (or by default). The fact that 'pronominal-postposing', illustrated in the SC in (i) below, is not allowed from the preposed (i.e. VP adjoined) position, as in (ii) (i.e. in infinitival clauses), is taken as further support for the view that the preposed direct object slot is not lexically governed (or Case-licensed) by V(their (58a) and(140b) respectively):

- (i) Ba mhinic [t faoi ionsaí é]
 Cop(Past)often under attack him
 'He was frequently under attack'
 (ii) *Rinne sé iarracht [t a dhéanamh é]
 do(Past) he attempt do(-Fin) it
 'He tried to do it'

²¹Recall that in NI non-finite clauses with a transitive V preposing of the direct object (which is followed directly by *aL*) is obligatory.

²²(i) A verb which lacks an external argument fails to assign accusative Case; (ii) A verb which fails to assign accusative Case fails to theta mark an external argument.

²³In contexts not involving unaccusative verbs the subject is presumed by McCloskey and Sells to be in [Spec,IP] and Case-licensed by default (following Chung and McCloskey 1987).

1995, Bobaljik and Carnie 1996 and Adger 1996b): *aL* (in NI) is analysed as the head of an independent functional projection rather than as a particle combined with VN under V°. If, as will be argued in the next subsection, this is the correct approach, then positing a structure for the NI non-finite clause as a whole becomes relatively straightforward: VN can be located under V° and *aL* under AgrO, with the direct object in [Spec,AgrOP]. This leaves the subject in the specifier of some as yet unidentified (functional) projection above AgrOP.²⁴

However, in the case of SI a structure of this kind simply cannot account for the facts: if *aL* really were a Case-licensing AgrO then it is not predicted to occur when the direct object remains in situ in genitive Case, as in (2)b above. Moreover, if in transitive contexts there really were two functional projections dominating a VP headed by VN then there should be a slot available both for a lexical subject and a preposed object in that dialect also, which clearly is not the Case (see (1b) above). We argue next that although *aL* in NI is most appropriately analysed as AgrO, there is no evidence for a similar account of *aL* in SI.

5.2.2 *AL* as AgrO in NI non-finite clauses only

The most significant indicator that *aL* in NI non-finite clauses is AgrO is the fact already noted in 5.1 that it always occurs following a preposed direct object (i.e. when VN is transitive) but is not generally found following subjects (examples repeated from above):

- (10) Ba mhaith liom sibh an doras a phéinteáil NI
 COP good with-me you the door-acc *aL* paint-VN
 'I would like you to paint the door'
- (11) a. Ba mhaith liom tú pósadh
 C OP good with-me you marry-VN
 'I would like you to marry'

²⁴In fact we will ultimately argue for a structure in which AgrOP is between the two layers of a split VP. This means that the subject Case-licensing projection will be directly above the higher VP layer.

- b. Ba mhaith liom iad cruinniú
 COP good with-me them gather-VN
 'I would like them to assemble'

Recall from above that those limited contexts in which *aL* is actually found following a subject in NI i.e. when VN is *teacht/come*, *bith/be* or *dul/goill/go* (examples repeated below), all involve VNs derived from unaccusative verbs:

- (12) a. Ghuigh sí é a theacht slán
 pray-PAST she him-acc aL come-VN safe
 'She prayed for him to survive'
- b. Níor mhaith liom ocras a bheith orm
 I wouldn't-like hunger aL be on-me
 'I wouldn't like to be hungry'
- c. Abair leis PRO a ghoil abhaile
 tell to-him aL go-VN home
 'Tell him to go home'

An AgrO analysis of *aL* in NI can easily be extended to these examples on the assumption that the sole internal argument²⁵ of *teacht/come*, *bith/be* and *dul/goill/go* (which is accusative Case) moves for checking to [Spec, AgrOP], just like the object of a transitive VN.²⁶

The fact that *aL* appears even in examples like (12)c where the subject is PRO calls for some comment. It might be expected that the null Case of PRO could be checked via non-overt movement of the Case feature to the Agr head (i.e. at LF) so that the overt realisation of Agr as *aL* would not be required. However, there are in fact good grounds for assuming that the head realised as *aL* not only Case-licenses the preposed direct object (i.e. in NI

²⁵By internal argument we mean one which is inserted into the inner VP layer of a bi-partite VP (see Chapter 4, example (22b), for an illustration of the VP assumed here for Irish). The direct object of a transitive verb and the single argument of an unaccusative verb are examples of internal arguments.

²⁶This is basically consistent with McCloskey and Sells's proposal (see subsection 2.1 above) that the single argument of these unaccusative verbs is Case-licensed (exceptionally, with respect to Burzio's generalisation) in the same way as the direct object of a transitive verb (for them, however, *aL* is in a position left adjoined to VP). Note, crucially, that we do not go so far as to say that Irish is ergative in non-finite clauses i.e. the claim here is not that the single argument of all monoargumental verbs in non-finite clauses is Case-licensed in the same projection as the direct object of a transitive verb (cp. Inuit (see Laka 1993)) but rather that the subject of these unaccusatives in NI is in AgrOP. A contrast can be drawn here with Noonan (1995) (reviewed in subsection 3.3 below) who argues that Irish does actually exhibit an ergative Case system in non-finite clauses i.e. for her the subject of any monoargumental verb which is followed by *aL* in Irish is in AgrOP.

only, on our account), but also overtly marks default agreement with the Phi features of the object. This is what has been proposed in Adger (1996)c for the corresponding particle in SG.²⁷

In arguing that *aL* in SG non-finite clauses is Agr Adger builds on the fact that it has a marked variant which is inflected to agree in Phi features with preposed pronominal objects, as in (13)a below; an overt pronominal, as in (13)b, is prohibited in the preposed position. The (inflected) particle in (13)a therefore is located under Agr, with *pro* (corresponding to the preposed pronominal) in [Spec, AgrP]. The fact that when the preposed direct object is a lexical NP, as in (13c), it must be followed by *aL* (Adger's examples (22a,d&b respectively) leads to the conclusion that *aL* is in fact the default Agr:

- (13) a. Feumaidh Daibhidh *pro*_i **mo/do/a/a/ar/ur/am** bhualadh *t*_i SG
 Must David 1sg/2sg/3m.sg/3f.sg/1pl/2pl/3pl strike-VN
 'David must hit me/you/him/her/us/you/them'
- b. *Feumaidh Daibhidh *t*_i a²⁸ bhualadh *t*_i
 must David you Agr strike-VN
 'David must strike you'
- c. Feumaidh Daibhidh am balach_i a bhualadh *t*_i
 must David the boy Agr strike-VN
 'David must hit the boy'

The important point for our purposes is that an inflected variant of *aL* also occurs to a limited extent in Irish,²⁹ as illustrated in (14) below:³⁰

²⁷Adger refers to SG *aL* simply as Agr, as distinct from AgrO. Irish *aL* is also analyzed as Agr in Adger (1996b).

²⁸It should be emphasised that substituting *do* (2.sg), here, for *aL*, to agree with the preposed pronominal (2sg) is equally ungrammatical, as is the preposed pronominal on its own i.e. without any agreement particle under Agr.

²⁹O'Siadhail (1989) cites current examples from NI. He also notes (p.277) that in Irish there is a continual drift towards a structure for preposed pronominals which is identical to the one for preposed NPs i.e. one with what Adger terms the 'default' *aL*, as in the following:

(i) Ba mhaith liom thu, a bhualadh *t*_i
 COP good with-me you PTC strike-VN
 'I would like to strike you'

³⁰This is example (44b) from Carnie (1995), who applies Adger's account of *aL* in SG to Irish.

- (14) Ba mhaith liom mo^L/do^L/a^L/a/ár^N/bhúr^N/a^N bualadh t
 Cop good with me 1s/2s/3ms/3fs/1pl/3pl strike
 'I would like to strike me/you/him/her/us/you/them'

Given that the distribution of *aL* in NI already constitutes independent evidence that *aL* is an object Case-licensing functional head in that dialect,³¹ it seems reasonable to assume that, as in SG, it not only Case-licenses the preposed direct object but also marks default agreement with it. An AgrO analysis of NI *aL* is therefore well-founded and its appearance in (12)c, in spite of the PRO subject in its specifier, is actually predicted on the assumption that it is functioning here as an overt marker of default agreement with PRO.

In the case of SI, however, there are no strong indicators that *aL* is AgrO; in fact its distribution in SI suggests that this is a most unlikely category for it to belong to. To begin with, in addition to occurring directly after a preposed direct object, it also follows the subject of both transitive and unergative VNs in this dialect,³² as illustrated in (15) and (16)a&b respectively (repeated):

- (15) Ba maith liom sibh a phéinteáil an dorais
 COP good with-me you *aL* paint-VN the door-gen
 'I would like you to paint the door'
- (16) a. Ba mhaith liom tú a phósadh
 COP good with-me you *aL* marry-VN
 'I would like you to marry'
- b. Ba mhaith liom iad a chruinniú
 COP good with-me them *aL* gather-VN
 'I would like them to assemble'

The *aL* following the external argument in (15) cannot be AgrO if we are correct in assuming that the syntactic function of an AgrO head is to check the Case and Phi features of the internal argument in its specifier (where the internal argument is either a direct object or the subject of an unaccusative).³³

³¹Or, more precisely, a functional head which Case-licenses a preposed internal argument of VN.

³²In other words *aL* can follow an external argument, whether this be the subject of a transitive verb or an unergative one (note the distinction between the latter and the subject argument of an unaccusative verb, which is assumed here to be an internal argument). The external argument is projected into the specifier of the outer VP layer.

³³The head filled by *aL* could of course simply be Agr. However, the reason for calling *aL* an agreement head in the first place is that it has a variant (in both SG and Irish) which is inflected to agree with the nominal in its specifier. Since the nominal associated with the inflected variant is always a direct object then AgrO seems to be the correct label.

In the case of (16)a it could indeed be argued that VN is actually transitive in its Lexical-Relational Structure i.e. that it has a second argument corresponding to the person the subject marries and so an AgrOP would actually be projected.³⁴ However, *aL* still cannot be AgrO because the argument it Case-licenses i.e. the one in [Spec, AgrOP], is again the external one.³⁵ Similarly, although it could also be claimed that VN in (16)b is transitive (i.e. that *iad a cruinniú* here means *them to gather themselves*) on the grounds that it includes a reflexive pronoun in its Lexical-Relational Structure, the argument requiring Case-licensing by *aL* would again be the external one, not the reflexive pronoun.

One final fact worth noting in the argument that *aL* in SI is not AgrO is that, unlike in NI, *aL* is not required following PRO subjects of *tar/come*, *dul/goil/go* (i.e. unaccusatives):³⁶

- (17) a. Ba mhaith liom **PRO teacht** *NI SI
 COP good with-me come-VN
 'I would like to come'
- b. Abair leis **PRO dul abhaile** *NI SI
 tell to-him go-VN home
 'Tell him to go home'

It may be the case that in SI PRO is simply licensed without agreement, or that AgrO is actually projected but that the head is non-overt because the subject is PRO. In other words, what is involved here may be a relatively minor dialectal difference which is unrelated in any way to the fact of *aL* in SI occurring following external arguments as well internal ones. However, we favour the view that the two issues should be resolved together by analysing *aL* in SI not as AgrO but as a particle (i.e. as a sublexical element). The fact that this theory also makes available an account of the word order differences between the two dialects further strengthens its appeal.

In view of the above anomalies inherent in assuming that *aL* in SI is AgrO as in NI, we

³⁴Hale and Keyser (1991) argue that unergative predicates are all transitive in their Lexical Relational structure.

³⁵An alternative would be to assume, as in Noonan (1995), that Irish is ergative in non-finite clauses and so the external argument i.e. the one inserted into the specifier of the higher VP layer, *can* be Case-licensed in AgrOP. For this to be possible, of course, AgrOP would have to be projected above the higher VP layer. A number of arguments against this approach will be presented in subsection 3.3 below.

³⁶and *bith/be*.

propose that it is more appropriately analysed as sublexical i.e. as a particle inserted with VN at X⁰ level along the lines originally proposed by McCloskey for NI. This would explain why, unlike in NI, it occurs before the VN of all non-finite clauses (with the exception of cases where the subject is PRO), regardless of whether or not there is an internal argument in the derivation.

We turn next to the category of the projection dominating (aL)+VN, an issue which constitutes one of the fundamental differences between McCloskey's notion of NI aL as sublexical and the account of SI aL proposed here.

5.2.3 (aL)+VN in SI non-finite clauses as a nominal category

In McCloskey's morphological rules for NI, cited in (6)-(8) above, the category V^o is morphologically realised as (aL)+VN. Leaving aside the objection already noted to this approach (i.e. that aL is more appropriately analysed as a functional head in that dialect), the claim that VN is inserted under V^o in the syntax of NI non-finite clauses (whether or not it is combined with aL) is in itself reasonable. It has the advantage of capturing the fact that the only nominal property of VN in this dialect is its morphological form: it is not preceded by determiners,³⁷ its internal argument (which is always preposed) gets accusative Case, just like the direct object of V in finite clauses, and its arguments are (arguably) projected into a clause rather than a DP (note that the subject is accusative, as in a SC, rather than genitive as it would be in a CFC which is a DP).³⁸

In the case of SI, on the other hand, the fact that the internal argument can remain in situ in genitive Case suggests to us that (aL)+VN is inserted under N^o rather than V^o.³⁹

³⁷See Chapter 4, footnote 5, for examples of VNs in other contexts which are preceded by determiners i.e. those with the distribution of typical nominals.

³⁸We return to the distinction between subject Case-licensing in a clausal structure versus a DP in more detail further below (examples (19a&b) versus (20a&b)).

³⁹In fact Guilfoyle (1994), unlike us, has proposed that VN in both SI *and* NI is always a nominal category,

Evidence that it should be analysed as N° comes from a comparison with deverbal nominals in English (e.g. *the destruction of the city*) which, unlike the verbs from which they are derived, do not assign accusative Case to an internal argument. Because nominals generally do not themselves have a Case-assigning property a dummy preposition *of* is inserted in English to perform this function. In SI, in contrast to this, the noun following VN is assigned genitive Case and there is no preposition. Notice now that, in English, phrases like *the murder of John* and *the destruction of the city* can alternate with *John's murder* and *the city's destruction*. The fact that the object following *of* has the option to appear as a genitive (in pre-nominal position) supports the view that there is an analogy to be drawn between the object argument in prenominal position in English deverbal nominals and the genitive object in SI non-finite clauses.⁴⁰ Our conclusion is that the category of the deverbal element which projects the relevant argument, in each case, is the same i.e. nominal.

Since the VN found in NI non-finite clauses is inserted under V° , on our account, while its counterpart in SI non-finite clauses is inserted under N° (together with aL) it follows that there must be two possible lexical insertions for each of the categories V° and N° in

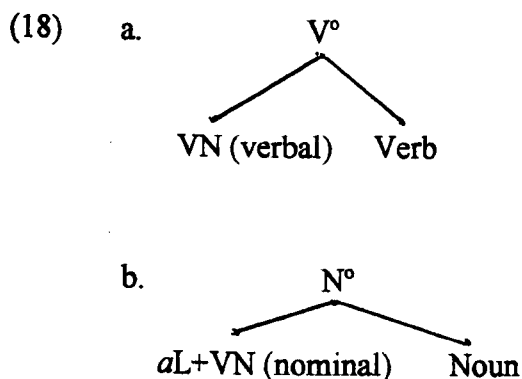
citing the potential to assign genitive Case as evidence (recall that in progressive phrases of both dialects the (post-verbal) direct object can be genitive Case). Guilfoyle argues that the reason VN can appear with the functional structure associated either with nominal elements or verbal elements i.e. with a DP layer when it is a straightforward nominal and with Infl in non-finite clauses, is that it is a hybrid form. Borsley (1993,) in his analysis of the Welsh VN, in contrast to this, draws a distinction between verbal and nominal VN on the basis of differences in their distribution, those occurring with determiners being analyzed as nominal and those occurring with adverbials as verbal. Like Borsley we consider the distribution of the VN to be a crucial factor in determining its syntactic category, hence our claim that only in SI non-finite clauses is VN a nominal.

In NI *progressive* phrases, on the other hand, we assume that VN is a nominal, as in SI *progressives* - recall that in Chapter 4 the lower layer of the VP in *progressives* is labelled VNP i.e. it is a nominal element not a verb. The N feature of this VN is presumably checked via overt movement to the head of the higher VP layer.

⁴⁰McCloskey and Hale (1984:512) take the appearance of genitive Case on the in situ internal argument of VN in progressive VPs (see Chapter 4, footnote 22) to be a nominal property of that VN. In spite of this, however, and contrary to the claim here '*ag+VN*' is analysed by them as a non-finite V° , in keeping with the original morphological rules proposed in McCloskey (1980)a. Note that they also draw a comparison between the genitive Case of the insitu direct object in progressive VPs and the genitive occurring in possessive phrases like the following, and they suggest that whatever analysis true nominals like these are given should be extendable to the deverbal noun forms (VNs) in progressive VPs:

- (i) [teach [an tsagairt]]
house the priest-Gen
'the priest's house

the syntax of Irish as a whole, as illustrated in (18)a&b below: either VN (verbal) or a verb can be inserted under V° (yielding, respectively, the verb form found in NI non-finite clauses, and finite verbs in both NI and SI), and under N° either $(aL)+VN$ (nominal) or a simple noun (yielding $(aL)+VN$ in SI non-finite clauses,⁴¹ and nominals generally in both NI and SI):



The key syntactic differences between the verbal VN in (18)a and the nominal VN in (18)b relate to distribution. The verbal VN assigns Accusative via aL and preposing to [Spec, AgrOP]; it is therefore selected by AgrO, the head of the projection associated with preposing of the internal argument. The nominal VN, on the other hand, occurs with an in situ internal argument in genitive Case; since it is a nominal it is not selected by AgrO.⁴² Below we address two significant consequences of the proposal that $(aL)+VN$ in SI is inserted under N° (as in (18)b).

5.2.3.1 $(aL)+VN$ in SI as N° : some consequences

The first consequence is that $(aL)+VN$, in spite of being a nominal, provides the arguments for a construction which is generally acknowledged to be a clause. In other words, contra expectations, a ‘clause’ is projected from a noun instead of a verb. Evidence of the clausal status of the projection as a whole comes both from its distribution, which is the same as

⁴¹Also, the VN (nominal) in both SI and NI progressive VPs. (see 40 above).

⁴²The nominal VN is selected by little v i.e. the outer layer of a bipartite VP (note that little v also has the potential to select a *verbal* VN e.g. in NI non-finite clauses when VN is derived from an unergative verb). The full details of the structures assumed will be discussed in 5.4 and 5.5.

for the corresponding non-finite clauses in NI, and from the fact, illustrated below, that, as in English infinitival clauses and NI non-finite clauses, the subject is accusative rather than genitive (the Case which might reasonably be expected for the subject of a nominal CFC):⁴³

- (19) a. Ghuigh sí é a theacht slán NI SI
 pray-PAST she him-acc aL come-VN safe
 'She prayed for him to survive'
 b. She believed him to be brave

(20)a below shows that in Irish a CFC which is a nominal (i.e. a DP) has a subject in genitive Case, as in English ((20b))

- (20) a. Caint na mná
 talk-VN the women-gen
 'the women's talking'
 b. John's rendition of the song

The second consequence of our analysis is that if (aL)+VN in SI non-finite clauses is indeed a nominal, a DP layer might incorrectly be predicted to occur above it. The solution to the two problems, as will be demonstrated next, hinges on the more fundamental question of why the arguments of a clausal CFC (e.g. IP/TP) are typically provided by a verb while those of a non-clausal CFC (i.e. DP) are provided by a noun. The answer is that only under such circumstances could the verb and noun respectively have their inherent categorial features checked.

For example, in a clause the inherent categorial feature of the verb (i.e. a V feature) is checked, either overtly or non-overtly, when it raises to the head of some projection within Infl (e.g. Tense or Agreement). In a non-clausal CFC e.g. a DP such as *the Romans' destruction of the city*, in contrast to this, the noun *destruction* has its inherent categorial feature checked when the DP as a whole moves to [Spec, IP] (or [Spec, AgrOP], depending on the grammatical function i.e. subject or object, of that complex DP in the sentence).⁴⁴ This being the case, then, a verb cannot appear in a (complex) DP in place of

⁴³The issue of how exactly subject Case-licensing functions in non-finite clauses will be addressed 5.5 below

⁴⁴Another possibility is that the inherent categorial feature of N is checked against the D to which it is

a noun and a noun cannot appear in a clause in place of a verb because the inherent categorial feature of that head will fail to be checked.⁴⁵

What must be explained now is why the arguments of a non-finite clause in SI, only, are unexpectedly provided by a noun i.e. the proposed nominal (*aL*)+VN - in other words why a 'clause' is projected from a noun instead of from a verb. Our answer is that this is only possible because the uninterpretable nominal feature of VN can be checked without movement (to the specifier of some functional projection)⁴⁶ i.e. it can be eliminated via M-merger with the particle *aL* in the morphological component.⁴⁷ In short, in spite of the fact that there is no appropriate head available for N to check against in a standard checking configuration, its uninterpretable feature is nevertheless eliminated.⁴⁸

Although we postpone a full account of the functional structure (and Case-licensing operations) assumed in 'non-finite clauses' of the two dialects until further below (see sections 5.4.2 and 5.5 below) certain questions come immediately to mind in view of the proposals just made, which for clarity we will address briefly here.

We have claimed that *aL*+VN in SI is a nominal which, like Irish nominals generally, can check genitive Case on the DP to its right. This might appear to conflict with the fact that in SI direct objects also occur in preposed position i.e. in the position we have analysed as [Spec,AgrOP] in NI (in fact, preposing is obligatory in SI when the direct object is the sole lexical argument of VN).⁴⁹ Thus, in spite of the proposal that VN in SI non-finite clauses is a nominal, there is evidence that the functional structure typically found with verbal rather than nominal categories is also projected (e.g. when the direct object is preposed and

complement (via adjunction at LF) and the inherent categorial feature of the DP as a whole, in turn, is checked via movement to [Spec,IP] or [Spec,AgrOP].

⁴⁵Subcategorisation restrictions are obviously also a factor here.

⁴⁶Or, as suggested in footnote 44 above, to the D (which selects it) via adjunction at LF.

⁴⁷This proposal follows a similar approach proposed in Adger (1996b) (reviewed in subsection 4.1 below).

⁴⁸In NI non-finite clauses the same problem does not arise because VN is a V heading a clause and can therefore be checked like the lexical head of clauses generally.

⁴⁹See (1a&b) and (2b) above. It should be noted that in examples like (1a) (with a PRO subject) the object cannot be post-VN.

accusative rather than in situ and genitive).

As will be demonstrated below, clause-like phrases with mixed verbal and nominal properties of a similar kind are also attested in English. There is a point which must first be clarified, however: on our account of SI non-finite clauses a preposed internal argument (unlike in NI) will not in fact be Case-licensed in [Spec, AgrOP]- rather, it will ultimately be argued that it is Case-licensed in the same projection which Case-licenses subjects in both dialects (we will refer to this projection as FP for the present).⁵⁰ This proposal is related to our assumption that AgrOP does not select a nominal complement. AgrOP should not be projected in SI non-finite clauses, therefore, since *aL+VN* in SI is a nominal.

Returning now to the mixed categorial properties of SI non-finite clauses referred to above - recall that they resemble clauses in having an accusative rather than a genitive subject (compare English ECM infinitivals and NI non-finite clauses, versus complex DPs), but they resemble nominals generally in the potential of VN to check genitive Case on its direct object (contrast verbs generally). Certain parallels can be drawn here with English *poss-ing gerunds*, illustrated in the bracketed phrases of (21)a-c below:

- (21) a. [_{DP}Mary's secretly singing the Marseillaise] surprised me
b. John enjoyed [_{DP} Bill's keenly playing the Browning]
c. Jane was concerned about [_{DP} Ian's secretly liking her]

The lexical head which projects the arguments in these gerunds, like VN in Irish 'non-finite clauses', can be described as deverbal i.e. morphologically it has the form of a noun derived from a verb. Consider now its syntactic category. There are two strong indicators that *singing*, *playing* and *liking* in (21)a-c are inserted into the syntax as verbs:⁵¹ firstly, the internal argument (accusative) is Case-licensed by V (contrast examples in which the dummy preposition *of* must be inserted),⁵² and secondly, the gerund is modified by an

⁵⁰FP will finally be identified as AspP.

⁵¹See Chapter 3, subsection 2.2 for the account of the mixed categorial properties of *poss-ing gerunds* in Abney (1987).

⁵²e.g. *Mary's secret singing of the Marseillaise*

adverb, not an adjective, as is expected when the lexical CFC is a VP. However, since the subject is genitive it is reasonable to assume that subject Case-licensing takes place in [Spec, DP]. What this means is that the proposed VP is unexpectedly selected by D⁰ rather than by Infl/T.

A distinguishing syntactic characteristic of the gerunds in (21)a-c, therefore, is that the lexical head which provides the arguments is verbal, while the functional 'outer-layer' of the projection i.e the structure in which the subject is Case-licensed, is nominal (we assume that Grimshaw 1991 is correct in the general distinction she draws between nominal and verbal functional categories).⁵³ The main difference between the mix of categorial properties found in *poss-ing gerunds* and the one identified above for SI 'non-finite clauses' therefore is as follows: in SI 'non-finite clauses' the lexical head which provides the arguments is a nominal and the subject Case-licensing, functional 'outer-layer' is verbal (i.e the FP in which we will argue clausal subjects in both NI and SI are Case-licensed), while in *poss-ing gerunds* the reverse applies i.e the lexical head which provides the arguments is verbal, while the subject Case-licensing, functional outer-layer is nominal. In other words, in *poss-ing gerunds* a nominal functional head (D) selects a verbal lexical complement (VP), while in SI 'non-finite clauses' a verbal functional head (FP) selects a nominal lexical complement (NP). In both cases, the expected combination of verbal functional categories (e.g IP/TP) with VPs, and the combination of nominal functional categories (e.g DP) with NPs does not hold.⁵⁴ *Poss-ing gerunds* therefore constitute independent evidence that CFCs with a mix of verbal and nominal properties of the kind proposed here for SI non-finite clauses are also attested in English i.e those in which the subject Case-licensing projection is nominal and the lexical head which projects the arguments is verbal and vice versa.

⁵³ Grimshaw treats DP as the functional category for N and IP as the functional category for V. She posits 'extended projections' in which DP and IP each have five extended heads. These are respectively, D, D', N, N', NP and I, I', V, V', VP. Furthermore, P and C are analyzed as the highest extended projections of the nominal and verbal systems, respectively.

⁵⁴ In fact in the general case F(P) in both NI and SI will select little vP i.e a verbal category. Only when there is no external argument in SI i.e no little vP will F select a nominal.

We come now to a difference between *poss-ing gerunds* and SI non-finite clauses. We will argue further below that when a SI non-finite clause does not have a lexical subject the direct object must move from its in situ position to [Spec, FP], where it appears in accusative Case. However, the internal argument of a *poss-ing gerund* under the same circumstances is actually prohibited from moving from its in situ position as right sister to V to [Spec,DP] of the gerund for Case -licensing (e.g. *[*The Marseillaise's*] *secretly singing t (by John)*] *surprised me*). There is an obvious reason for this: since the lexical head which projects the arguments is a (transitive) verb then an AgrOP will be projected above VP. This means that the formal features of the direct object in the gerund will check against AgrO (at LF) leaving the Case feature on D⁰ unchecked. In SI non-finite clauses, in contrast to this, no AgrOP is projected above VN because VN is a nominal. Preposing of the direct object to the subject Case-licensing projection (FP) in the relevant circumstances is therefore possible.

Summing up this section as a whole, the proposal in McCloskey (1980)a that in NI the particle *aL* and VN are under V⁰ in the syntax has been reviewed and evidence in favour of an alternative analysis in which *aL* is treated as an independent functional projection i.e. AgrO, in that dialect, has been provided. Arguments against analysing *aL* in SI in the same way i.e. as AgrO, have then been presented leading to the conclusion that in this dialect it is more appropriately analysed as sub-lexical. Finally it has been proposed that in SI (*aL*)+VN is inserted under N⁰, hence the potential for a direct object to remain in situ in genitive Case. Although the evidence that in SI (*aL*)+VN is inserted under N⁰ rather than V₀ cannot be considered conclusive, the fact that there is evidence of mixed categorial properties in English *poss-ing gerunds* which are comparable to the mix of categories proposed by us for SI lends support to this analysis.

Before exploring the claim that in SI the N feature of VN is eliminated via M-merger with *aL* on the way to PF, we consider, in the next section, four more recent accounts of Irish non-finite clauses i.e. Bobaljik and Carnie (1996), Guilfoyle (1994), Noonan (1995) and

Carnie (1995).⁵⁵ These together offer a range of solutions, within a minimalist framework, both to the problems encountered by pre split Infl analyses referred to above (i.e. the issue of the category of *aL*, the position and Case-licensing of the internal argument, and word order asymmetries between NI and SI) as well as to additional difficulties arising in later developments of the theory (e.g. the VP internal subject hypothesis and the minimalist principle of 'shortest move').

5.3 Minimalist Approaches to Word Order and Case-licensing in Irish Non-finite Clauses

The question of the position and Case-licensing of the preposed object is easily solved by the above mentioned authors with the introduction of functional structure, not previously assumed, to host the preposed direct object (as already noted in 5.2.). However, applying this to a theory in which the subject is generated inside the VP leads to further complications. For example, in the analysis of Irish non-finite clauses proposed in Bobaljik and Carnie (1996) the two developments together will be shown to result in a violation, in NI, of the principle of 'shortest move' (Chomsky 1993,1995)). Although the same difficulty does not arise for the accounts of Guilfoyle (1994), Noonan (1995) and Carnie (1995) (who locate the object Case-licensing projection between the two layers of a Larsonian type VP), it will be argued that they also, like Bobaljik and Carnie (1996) and the analyses referred to in the previous section, fail to make available a plausible account of the syntactic differences between the dialects. Moreover, all four refer only briefly to the Case-licensing of subjects. In the reviews below, therefore, the need for an alternative account of these two issues i.e. word order asymmetries between NI and SI, and subject Case-licensing, will be highlighted.

⁵⁵See footnote 5 above.

5.3.1 Bobaljik and Carnie (1996)

Bobaljik and Carnie assume that the NP movement available in Irish non-finite clauses is identical to the NP movement available in finite clauses, with word order differences between the two arising because there is less overt V movement in non-finite clauses than in finite ones. The structure they propose for both finite and non-finite clauses is as follows:

(22) $[_{AgrSP} [_{AgrS'} [_{TP} [_{T'} [_{AgrOP} [_{AgrO'} [_{VP} [_{V'} [_{DP}]]]]]]]]]]]]]$

In matrix clauses V moves overtly to AgrS, through AgrO and T respectively. The subject and object also move overtly, to [Spec, TP] and [Spec, AgrOP] respectively, giving VSO order.⁵⁶ The subject ultimately undergoes covert movement (at LF) to AgrSP for checking of Agr features and Case. In non-finite clauses (in NI), where word order is SOV, the verb only moves as far as AgrO. The object moves overtly to [Spec, AgrOP] and the subject to [Spec, TP].⁵⁷ Thus, AgrS in both clause types, unlike Tense, has weak N features and overt movement in the non-finite clause is a subset of the movement in matrix clauses (since V moves only to AgrOP in non-finite clauses).

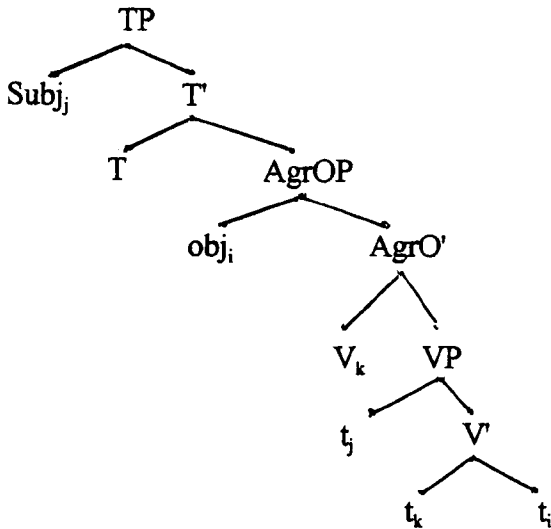
The main weakness of Bobaljik and Carnie's proposed structure (as it applies to non-finite clauses) is that, as mentioned above, it leads to a violation of the minimalist principle of 'Shortest Move' requiring that the links involved in the formation of a chain via movement should be as short as possible.⁵⁸ The violation occurs when, as illustrated below, the subject moves to [Spec, TP] from its base position in [Spec, VP], bypassing [Spec, AgrOP] which is occupied by the preposed direct object:

⁵⁶They claim that since there is very convincing evidence that objects move overtly to AgrOP in non-finite clauses then they are likely to do so also in finite clauses. If the object moves to AgrOP then the subject must also have moved out of VP to give VSO order.

⁵⁷Although Bobaljik & Carnie do not specifically state that the subject moves covertly from [Spec, TP] to AgrSP, as in matrix clauses, presumably this is what is assumed, bearing in mind that they take the movement properties in both finite and non-finite clauses to be identical, as pointed out above.

⁵⁸Bobaljik & Carnie themselves acknowledge this weakness in their analysis.

(23)



It would be avoided if the verb moved not just to AgrO, but higher again to T so that [Spec, TP] and [Spec, AgrOP] would be made equidistant with respect to the movement of the subject from [Spec, VP].⁵⁹ However, since the verb follows the direct object (recall that the word order is SOV) this is clearly not the case and so Bobaljik and Carnie's account, as it stands, effectively permits the violation.^{60,61}

A second weakness of their account is that the structure and movement possibilities described above are based on examples from NI, and although SI non-finite clauses are referred to, in particular those in which both subject and object are overt (as in (2b) above), no attempt is made to explain why, under such circumstances, the object must

⁵⁹This is because the minimal domain of the verb would then be extended to include [Spec, TP]. Note that the minimal domain of the verb consists of the categories locally related to it. Here, this is [Spec, VP] and complement to V before the verb moves to AgrO, at which point it is extended to include [Spec, AgrOP].

⁶⁰Holmberg's generalisation (Holmberg 1986), based on the observation that object shift in Icelandic is only allowed if the lexical verb also moves, captures the same idea. This is illustrated below in examples from Thrainsson (1995:18) showing that (i)b, in which the object moves from its position as sister to V to [Spec, AgrOP] (bypassing [Spec, VP]), is grammatical (the object is located by considering its position in relation to the adverb *aldrei*), because the verb moves through AgrO to T:

- (i) a. Hann las *aldrei* bokina
 he read never the book
 b. Hann las bokina *aldrei*
 c. *Hann hefur bokina *aldrei* lesio
 he has book never read

In (i)c the lexical verb remains in situ and so movement of the object over [Spec, VP] is ungrammatical.

⁶¹They offer one possible solution to the problem: AgrO incorporates and raises overtly to non-finite T, stranding the main verb in AgrO.

remain in situ i.e. why two pre-verbal overt arguments are not allowed. Since *aL* is treated as the realization of AgrO then there is no obvious reason why the direct object in SI transitives of this kind should be forced to remain in situ rather than to raise to [Spec,AgrOP]. If we say that the subject has already moved into this slot then we have to explain why the subject would do this in SI but not in NI.

Finally, although the position of the subject in non-finite clauses is indicated (i.e. [Spec, TP] pre-LF) the issue of how exactly the subject is Case-licensed is simply not addressed.⁶² The fact that overt subjects in Irish non-finite clauses have a much freer distribution than that found in non-finite clauses in other languages (i.e. subjects are Case-licensed in the absence of either a finite T (or Agr) or any obvious head with an ECM property) is not one which, in our view, can be overlooked in identifying the structure of these clauses. In short, Bobaljik and Carnie's account leaves three important issues unresolved: the apparent violation of 'Shortest Move', the word order differences between NI and SI, and the Case-licensing of subjects, particularly in NI. In the next subsection we consider how these issues are addressed in Guilfoyle (1994).

5.3.2 Guilfoyle (1994)

Guilfoyle provides an account of Irish non-finite clauses which is designed primarily to explain why in NI non-finite clauses two overt nominals, the subject and the object, can occur before the verbal noun, while in SI only a single overt argument ever occurs at one time (recall that this is the subject, if the verb is transitive, with the object occurring post-VN, or the object if the subject is PRO). The relevant examples are repeated here:

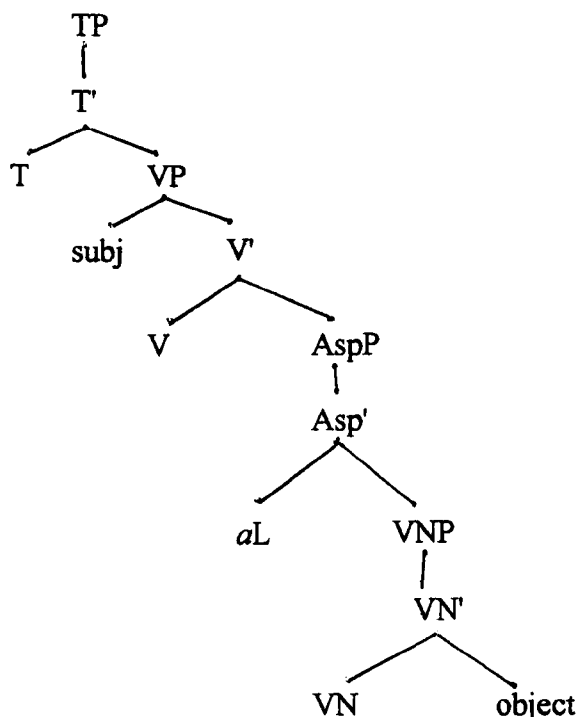
- (24) a. Ba mhaith liom sibh an doras a phéinteáil NI *SI
 COP good with-me you the door aL paint-VN
 'I would like you to paint the door'

⁶²In Bobaljik and Carnie (1992) Case-licensing via a non-overt ECM preposition is proposed. This is not mentioned in the (1996) paper.

- b. Ba maith liom sibh a phéinteáil an dorais⁶³ *NI SI
 COP good with-me you aL paint-VN the door-gen
 'I would like you to paint the door'
- c. Ba mhaith liom PRO an doras a phéinteáil NI SI
 COP good with-me the door aL paint-VN
 'I would like to paint the door'

The analysis proposed explains the word order variation in terms of distinct structures for the two dialects, an approach which, as will become evident below, successfully avoids a shortest move violation (in NI) of the kind arising in Bobaljik and Carnie (1996) but, it will be argued, is not based on a plausible concept of what might cause two dialects to vary in the manner proposed. Moreover, it has nothing new to say about subject Case-licensing in NI. In NI the VP is understood to consist of two segments separated by an AspP, as illustrated in (25) below.^{64,65}

(25) NI non-finite clauses



⁶³Note that post-verbal objects in this construction are only possible when the subject (in pre-verbal position) is overt, otherwise the object is preposed (see Carnie 1995:89). Note also that pre-verbal objects are always accusative Case while the post-verbal ones, as noted above, are genitive (in formal registers).

⁶⁴In adopting a bipartite structure for VP Guilfoyle draws on work by Larson (1988) and in particular Travis (1991) who also posits a VP containing AspP.

⁶⁵In finite clauses there is an AgrP dominating TP, to which the verb moves overtly.

The higher segment is headed by an empty (light) verb which assigns a theta role to the external argument (of VN) in its specifier; the lower segment is a verbal noun phrase (VNP) headed by a nominal (the VN), taking the object argument as complement.⁶⁶ Since VN cannot assign accusative Case the object moves to [Spec, AspP] where it is Case-licensed by *aL* under Asp.⁶⁷ No violation of shortest moves arises here because the subject is inserted above the object Case-licensing projection.

To account for the most important fact that in SI non-finite clauses only a single slot seems to be available before the verb, Guilfoyle proposes that in that dialect no higher VP segment is projected. There is no little *v*, therefore, and either a subject or an object can be generated in [Spec, VNP] and move to [Spec, AspP] for Case-licensing. When the verb is transitive and has two overt arguments the subject argument is inserted into [Spec, VNP] and the object occurs as right sister to VN where it is assigned genitive Case. Examples in which the subject is PRO and the object is preposed (see (24c)) are explained by assuming that in SI PRO simply does not appear in the syntax.⁶⁸

Why speakers in one dialect should project a bipartite VP in non-finite clauses and speakers in another a VNP only is explained by drawing on a theory of event structure presented in Van Voorst (1988) who suggests that the organisation of event structure is encoded differently crosslinguistically.⁶⁹ Building on this theory, Guilfoyle makes two claims which provide the foundation for the proposal that SI does not have a higher VP layer: i) in Irish a subject which is inserted into [Spec, VP] must be an initiator (i.e. an

⁶⁶VN is said to have the argument structure of a verb in spite of its noun-like properties.

⁶⁷The bipartite structure is also assumed in finite clauses (of both dialects) with the difference that there the VN becomes a true verb by incorporating with V (which in turn moves to T).

⁶⁸Control, in such cases, is said to involve an implicit argument of the kind proposed in Williams (1987) for certain nominals in English.

⁶⁹For example, in English and Dutch, object NPs always coincide with the termination of events. However, subjects in Dutch always play a role in initiating the event (i.e. they are 'objects of origin') while subjects in English may coincide with the origin of the event or with an NP that actualizes the event. Thus the following asymmetry arises between the two languages:

(i) The key opened the door

(ii) *De sleutel opende de deur (Van Voorst:11(22))

agent);⁷⁰ ii) in finite clauses an (initiator) argument moves from [Spec,VP] to [Spec, TP] (the verb is in Agr, above TP), but in non-finite clauses this movement of the subject does not take place because a non-finite clause does not have an initiation point.

In examples like NI (24)a above, therefore, the subject (an initiator, inserted into [Spec,VP]) does not move to [Spec, TP] as it would in a finite clause but remains where it is, leaving [Spec,TP] unoccupied. The productive rule of Case-assignment to the subject of a non-finite clause proposed in Chung and McCloskey (1987)(i.e. default Case) is then invoked to explain how it is Case-licensed in this position.

Now, in SI non-finite clauses the absence of finite tense (which, as we have seen above, for Guilfoyle implies the absence of an initiation point) leads to the consequence that a higher VP is simply not projected. The argument seems to be, therefore, that SI speakers come to the conclusion that without an initiation point not only must [Spec,TP] remain vacant, as in NI, but there must also be no higher VP since [Spec, VP] is reserved for initiators. Initiators in SI non-finite clauses, accordingly, must be located, instead, in [Spec, VNP].

Our main objection to this analysis, as indicated above, concerns the proposed motivation

⁷⁰The following evidence is presented in support of this claim:

Firstly, examples like (i), below, with a non-agentive subject, are ungrammatical (Guilfoyle's (50)):

- (i)*D'oscail an eochair an doras
open-PAST the key the door
'The key opened the door

Secondly, when the 'subject-like' element is not clearly an agent (i.e. an initiator of the event) there is a strong tendency for it to appear as a PP, internal to the VP, rather than as an external argument e.g. predicates expressing physical and psychological states typically appear as nominal predicates with PP experiencers (see Chapter 4, footnote 79,(i)).

Thirdly, as already noted in Chapter 4, Irish has a class of verbs termed 'salient unaccusatives' in McCloskey (1996), whose single argument is also not an agent. In keeping with Guilfoyle's claim, it is projected as the object of a preposition in a PP complement to V°. Note, also, that on McCloskey's analysis the corresponding 'putative unaccusative' (i.e. without the preposition), the single argument is again inserted as complement to V° and raises to canonical subject position for Case.

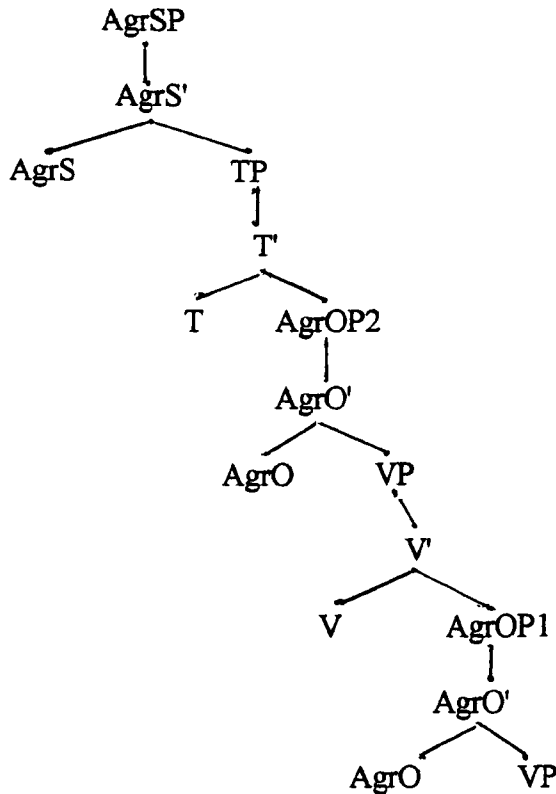
for the dialectal difference. Although the claim that in both dialects the higher VP is associated with an initiator argument (i.e. in finite clauses) is convincing, it seems highly unlikely that in the case of SI speakers the appearance of this VP layer in non-finite clauses should effectively be considered incompatible with the fact that the said event does not have an initiation point, while for NI speakers the notion of initiator and lack of initiation point are perfectly reconcilable so that [Spec,VP] can be retained. The objection seems all the more justified given the fact that in SI an initiator can appear anyway in [Spec,VNP]. Whether or not a lexical projection specifically associated with an initiator argument (i.e. [Spec,VP]) should appear in the absence of a specific initiation point is, in our view, best treated as a matter of human cognition and is unlikely to be open to parameterisation.

We are led to the conclusion, therefore, that Guilfoyle's solution to the dialectal differences is not correct. Although the evidence does indeed seem to point to reduced structure in the case of SI, the missing projection is in our view more likely to be functional than lexical. As will be demonstrated in the next subsection, Noonan (1995) also assumes that the source of the word order asymmetries rests with differences relating to the functional structure projected in each dialect.

5.3.3 Noonan (1995)

Noonan claims that Irish non-finite clauses contain two AgrOPs, one within VP (assuming a Larsonian type VP shell), the other directly above the higher VP layer, as illustrated below:

(26)



AgrOP1 is understood to be active in NI, AgrOP2 in SI.⁷¹ The most important consequence of this proposal is that in examples like (24)a, above, a violation of 'Shortest Move' is avoided in NI but not in SI: in the latter Case the object raises into [Spec,AgrOP2] above the position where the subject is generated (i.e. the specifier of the higher VP). If the subject raises for Case-licensing into [Spec,AgrSP], therefore, it must bypass [Spec,AgrOP2], violating 'Shortest Move', hence the ungrammaticality of (24)a in this dialect.⁷² In NI, on the other hand, since the direct object is Case-licensed in [Spec,

⁷¹In SI AgrOP1 is also allowed to be active in constructions involving raising predicates (see McCloskey 1984, 1986b), as in (i) below, where the subject of a non-finite clause raises into the matrix clause (Noonan's (14a)):

- (i) Thiocfadh le Ciarán, [t_i teach a cheannach]
Come(COND)with Ciarán house aL buy
'Ciarán could buy a house'

If the object were in AgrOP2 in these cases then the subject would have to raise over it to get into the matrix clause, thus violating 'shortest move'. Examples like (i) are raised again in footnote 96 below.

⁷²Notice that movement of the object to [Spec,AgrOP2], by-passing [Spec,VP] (containing the subject) does not lead to a violation of 'shortest move' since it could be argued that the minimal domain of the verb is extended to include [Spec, AgrOP2] if VN moves to AgrOP2 (recall that non-finite clauses have SOV order).

AgrOP1] (the head of which is occupied by *aL*), movement of the subject from the specifier of the higher VP to [Spec, AgrS] is perfectly legitimate. A PRO subject (with a preposed direct object) is allowed in SI (24)c on this analysis because it is assumed that it can remain in situ until LF. The only way in which both arguments of a transitive verb in a SI non-finite clause can be overt is if the subject moves into AgrOP2 for Case-checking (from the specifier of the higher VP layer) and the object remains in situ with genitive Case, as in (24b) above.

Consider now how Noonan accounts for subject Case-licensing in examples other than SI (24)b. The notion of default Case proposed in Chung and McCloskey (1987) is invoked for NI (24)a, where the subject is in AgrSP and *aL* does not appear following it (cf. Guilfoyle 1994). Subjects followed by *aL* in both dialects, however, as in the following examples with monoargumental verbs,⁷³ are assumed to be in the specifier of whichever AgrOP is active in that dialect i.e. AgrOP1 in NI, AgrOP2 in SI (with *aL* in Agro1/2):⁷⁴

- (27) a. Ba mhaith liom **sibh a bheith anseo** NI SI
 COP good with-me you *aL* be-VN here
 'I would like you to be there'
- b. Ba mhaith liom **sibh a dhul/a theacht** NI SI
 COP good with-me you *aL* go/*aL* come-VN
 Ní thaitníonn leat 'I would like you to go/come'

Locating these subjects in AgrOPs makes it possible to explain why the following example is ungrammatical in NI only:⁷⁵

- (28) Ní thaitníonn leat **iad a chruinniú** SI *NI
 Neg please to you them-acc *aL* assemble-VN
 'It does not please you for them to assemble'

Because the 'active' AgrOP in NI is VP internal i.e. AgrOP1, the single argument of the unergative verb, generated above AgrOP1 (i.e. in the specifier of the higher VP), cannot

⁷³Recall that it is only in SI that *aL* can follow the subject of a transitive verb, as in (24b) above. As already noted, the subject of the non-finite clause in (24b) is located in [Spec, AgrOP2].

⁷⁴Noonan's examples (8)a&b. The NI and SI grammaticality judgements are omitted in the original.

⁷⁵Noonan's (10) (cf. (3b) above).

be Case-licensed there.

In view of examples like (27)a&b Noonan comes to the conclusion that NI exhibits an Ergative rather than a Nominative Case system in non-finite clauses,⁷⁶ since the internal argument of a monoargumental verb, on her analysis, is Case-licensed in the same projection as the object of a transitive verb i.e. AgrOP. A comparison is drawn, in this respect, with Basque (see Laka 1993) where the internal argument of one-place verbs and the internal argument of two place verbs are both marked Absolutive.

While Noonan's analysis does manage to account for the main asymmetries in the data, it is unconvincing when viewed from a theoretical perspective for the following reason: we are told that in NI an object which has moved to [Spec, AgrOP1] pre-Spell out has moved again by LF into [Spec, AgrOP2] i.e. both AgrOs occur simultaneously - however, there is no obvious reason why this should be necessary, since only one is ever 'active'. The statement that the inner AgrO is aspectual in nature and has an important role in determining accusativity i.e. in making accusative Case *available* does not clarify the issue and so the motivation for two AgrOs together remains vague. Moreover, not much is said about the inner AgrOP in SI, apart from the claim that it is not (usually) 'active' in this dialect. Although the need for the two AgrOs to be projected simultaneously, as described for NI, is not obvious, it is nevertheless clear why Noonan needs to say that at least in SI it is possible for an AgrO to be projected in either position in that dialect. Recall from footnote 71 that AgrOP1 must be allowed to be active in SI constructions involving raising predicates (rather than the expected AgrOP2), so that a violation of shortest move can be avoided. If each dialect had only one AgrO and this were located as proposed by Noonan the analysis would be more plausible. In short, the claim that two AgrOPs are available in each dialect lacks real motivation and for this reason does not appear to be in the spirit

⁷⁶Bobaljik (1992) argues that the two Case systems, Nominative and Ergative are the result of a parameter in Case Theory: on the assumption that there are two projections, Agr1 and Agr2, which make structural Case available to the two arguments of a transitive verb, in a Nominative Case system Agr1 will be nominative and Agr2 accusative, in an Ergative system Agr1 will be ergative and Agr2 absolutive. When the predicate has only one argument it is the Agr projection which is 'active' in that system which Case-licenses it. In a Nominative Case system like English Agr1 is active (i.e. the subject of a monoargumental verb will have nominative Case), while in an Ergative system like Inuit, Agr2 is active (i.e. the subject of a monoargumental verb has Absolutive Case).

of the minimalist principle of economy.

Finally, a review of Carnie (1995) who proposes that the word order asymmetries between non-finite clauses in NI and SI arise because the VN in SI moves to a higher head position in the clause than in NI specifically when the subject is lexical, yielding SVO rather than SOV order in that context.

5.3.4 Carnie (1995)

Carnie assumes that both NI and SI have the potential to project the following structure in which the VP is split and AgrOP is located between the two layers:⁷⁷

(29) [AgrSP[VP[AgrOP[VP]]]]

(29) accommodates the grammaticality of examples like (24)a in NI and (24)c in NI and SI, both of which have preposed direct objects located, on this approach, in [Spec, AgrOP]; a Shortest Move violation is avoided, in the case of NI (24)a, on the assumption that the subject is generated in the specifier of the higher VP layer (above the object Case-licensing projection);⁷⁸ in (24)c the PRO subject remains in [Spec, VP] (presumably raising at LF to AgrSP for checking). Consider, now, how the ungrammaticality of (24)a in SI is explained, in spite of the claim that (29) is a possible structure in that dialect.

The solution is based on the proposal that a subject is Case-licensed under different conditions in SI than in NI, although in both dialects the subject moves, for Case-licensing, to the specifier of AgrSP (at least in those contexts where VN has an external argument).⁷⁹

⁷⁷Adapted from Carnie's (62) in which the TP projection assumed to dominate AgrSP is not shown.

⁷⁸As in Guilfoyle (1994) and Noonan (1995).

⁷⁹It has an external argument when it is transitive or unergative. Carnie proposes (p. 121) that in SI when the verb is unaccusative (e.g. *bith/be, tar/come* and *dul/ghoil/go*) movement of the subject for Case-licensing is to [Spec, AgrOP] (with *aL* under AgrO) rather than to [Spec, AgrSP] (since the single argument of VN is

In NI all that is required is for little *v* to move to AgrS, with VN moving just as far as AgrO (hence the SOV order in (24)a).⁸⁰

In SI, in contrast to this, VN must move to little *v* and, having incorporated with little *v*, then proceed further to AgrS. AgrS, moreover, is realised as the accusative Case-assigner *aL*, (unlike in NI where it appears under AgrO, only).⁸¹ When VN is transitive (as in (24b)) the object remains in situ in genitive Case. Thus, both the SVO word order of SI and the appearance of *aL* following external arguments in that dialect are accounted for. What remains to be explained, now, is why the object remains in situ (in genitive Case) in (24)b, instead of being preposed to [Spec, AgrOP] and having accusative Case (which would also give SVO order). The reason offered is that the object prefers to check its features as close as possible to the verbal head (VN) i.e. in an overt spec-head relation. Since VN moves this cannot be achieved and so it remains in situ with genitive Case.⁸²

Our main objections to Carnie's proposals concern the analysis of SI: although it is reasonable to suggest that two dialects might differ with respect to whether or not the VN moves in non-finite clauses, the claim that in SI the AgrS head must be realised as *aL* in order for the subject to be Case-licensed, while no such condition holds in NI, is in our view less convincing. If it could be argued that VN in SI picks up *aL* by moving through AgrO then this would be a more reasonable proposition,⁸³ but since the direct object is Case-licensed in situ (where it has genitive Case) then an AgrOP should not be projected.

Taking the objection to SI *aL* as Agr further, there is in fact no real evidence that when it follows an external argument (as in SI) it is agreement in the first place. In contrast to this,

an internal one and therefore is not inserted into the higher VP); we must assume that the same would apply with unaccusative VNs in NI because, as illustrated in 5.2. the subject, in this context only, is followed by *aL*, and Carnie analyses *aL* as AgrO in NI.

⁸⁰Recall that the direct object, here, is preposed to [Spec, AgrOP].

⁸¹Recall from footnote 79 that *aL* can also occur in AgrO in SI (with the unaccusatives *a theacht a dhul/ghoil* and *a bheith*).

⁸²Carnie does not elaborate on this point.

⁸³Since *aL* follows preposed direct objects in both dialects it could be argued that there is indeed evidence for analyzing it as AgrO (in fact we will only treat it as such in NI).

we have indeed seen above that there is some morphological evidence that *aL* following an internal argument (direct object) might be Agr(O): recall the analogy referred to in 5.2.2 between SG and Irish *aL*, both of which can be inflected to agree with preposed direct objects, leading to the conclusion that *aL* in both SG and NI is Agr.

Now, if, as assumed by Carnie, SG is to serve as a guideline for the analysis of *aL* in Irish,⁸⁴ then there is a gap in the argument which cannot be overlooked: *aL* in SG non-finite clauses typically occurs following a direct object, as in (30) below (the SG equivalent of Irish (24)c).⁸⁵

- (30) Bu thoigh leam **PRO an doras a dhùnadh**
 be liking with-me the door *aL* shut-VN
 'I would like to shut the door'

Unlike in SI, it only occurs with a subject when the verb is *bith/be*, as in (31) (from Adger (1996b), example (3)).⁸⁶

- (31) Bu thoigh leam **sibh/Mairi a bhith a' dúnadh an doruis** SG SG
 be liking with-me you/Mary *aL* be-VN PTC shut the door
 'I'd like you/Mary to shut the door'

The most that can be concluded therefore about Irish *aL* on the basis of the evidence from SG is as follows:⁸⁷ i) when it occurs between a direct object and a VN it may be under AgrO (since this is the environment in which pronominal objects trigger the inflected variant); ii) the single argument of the unaccusative verb *bith/be* may be in [Spec, AgrOP] because it is an internal argument followed by the same particle which arguably Case-licenses preposed direct objects in [Spec, AgrOP].⁸⁸ The assumption in both Carnie (1995) and Adger (1996)b that all instances of *aL* in Irish non-finite clauses are located under Agr

⁸⁴Carnie's analysis of Irish *aL* as Agr is based on Adger's account of *aL* in SG. The apparent anomaly in the dates arises because Adger (1996c) appeared as a manuscript before Carnie (1995).

⁸⁵Example adapted from Adger (1996a) (1a).

⁸⁶In SG, unlike in Irish, the only way the subject of a non-finite clause can be overt is if *a bhith a'* appears, as in (31), with the direct object remaining post-VN. Subject Case-licensing in SG is discussed fully in 5.5 below.

⁸⁷Note that these are not precisely the conclusions which we will draw from the analogy with SG, but they are, nevertheless, possible conclusions.

⁸⁸In fact it will be argued in 5.5 below that *aL* before *bith* in SG is not Agr.

i.e. including the *aL* following (SI) external arguments,⁸⁹ therefore, seems not to be fully motivated. Our more conservative proposal is that *aL* in SI is a related but syntactically distinct grammatical element from *aL* in NI, the latter, only, having a direct counterpart in SG.

Summing up on Carnie (1995): although the analysis of word order in Irish proposed there takes the principle of 'Shortest Move' into account and also recognises that there are certain parallels to be drawn with SG in terms of the analysis of *aL* (as AgrO), the claim that in SI, only, AgrS must be realised as *aL* in order to Case-license a subject is not convincing: not only is it merely a stipulation, but more importantly, there is no real reason to believe that *aL* following an external argument (as in SI) should be analysed as an Agr particle in the first place.

Summing up the section as a whole: it has been argued that none of the four minimalist analyses of Irish non-finite clauses reviewed offers either an adequate explanation for the word order asymmetries between NI and SI or a sufficiently explicit and convincing account of the way subjects are Case-licensed in the two dialects. Our main objections were as follows: lack of argument in support of the structures posited for SI by Bobaljik and Carnie; the questionable rationale behind Guilfoyle's proposal that NI projects a higher VP layer not found in SI; the difficulty of reconciling Noonan's notion of two AgrOPs (in a single transitive structure) with the minimalist principle of economy; and, finally, in Carnie (1995), the need to stipulate that *aL* is required to Case-license a subject in SI only, together with the absence of real evidence that *aL* is an agreement particle when it follows an external argument.

The first step towards an alternative account has already been taken in 5.2. where it was argued that while in NI *aL* and VN are inserted into the syntax under AgrO and V^o respectively, in SI both are inserted under N^o. It was also proposed in 5.2 that the syntactic

⁸⁹While Carnie uses two distinct labels AgrOP and AgrSP, Adger, as noted above, refers to both simply as Agr.

function of *aL* in SI non-finite clauses is to allow the N feature of VN to be eliminated via M-merger in the morphological component. In the next section we return to the notion of M-merger and show how the above assumptions lead to a full account of the word order facts introduced in 5.1 above.

5.4 M-merger, *aL* and the Word Order Asymmetries between NI and SI Non-finite Clauses

Our purpose here will be, firstly, to consider more closely the syntactic function of *aL* in SI, within a theory which includes M-merger (5.4.1), and secondly, to argue that the word order asymmetries identified in 5.1 are a consequence of the interaction between the selection properties of the functional heads which Case-license the arguments and the proposed category of VNP in each dialect (5.4.2).

5.4.1 *AL* and M-merger in SI

While the checking of the verbal categorial feature of VN in NI non-finite clauses can easily be accounted for in Minimalist terms, the same is not true of the proposed N feature of the nominal VN in SI: in the former case movement to AgrO (between the two layers of VP) can be invoked in transitive contexts since word order in NI is SO(*aL*)V and no element intervenes between VN and *aL*;⁹⁰ in the absence of AgrOP i.e. when VN is unergative in NI (with word order SV, as in (11a&b) above), VN can move and adjoin to the head of the subject Case-licensing functional projection (to be identified in 5.5),⁹¹ via the higher V of the bipartite VP.

⁹⁰It is assumed that an AgrO head can check a V feature (here, of VN) in the same way that T/AgrS can check a V feature in languages generally (see, for example Bobaljik and Carnie 1996 on English, French and Irish).

⁹¹Compare movement of V to T in finite clauses. Recall from above (introduction), however, our claim that Irish non-finite clauses are not TPs.

The problem which arises with feature checking in SI, where VN has the proposed N feature, is that there is no appropriate head present for VN to adjoin to i.e. one that might reasonably be associated with the checking of N features: movement (overt or non-overt) to the subject Case-licensing projection is not a possibility on the assumption that checking with the head via adjunction is available for V features, not N features, and movement to the specifier is blocked by the subject, which will already have moved there for Case-licensing (at least when the subject is overt).

As already indicated above, we hold that the checking problem can be resolved if VN M-merges with *aL*. Below the account of M-merger of VN with *aL* proposed in Adger (1996)b is reviewed, and fundamental differences between it and the one adopted here are made clear.

5.4.1.1 M-merger and *aL* in Adger (1996)b

Adger, unlike us, locates Irish *aL* under Agr in both NI and SI i.e. regardless of whether it follows a preposed direct object or a subject. VN also receives the same analysis in both dialects i.e. as a nominal element with a strong N feature which is eliminated via M-merger with *aL* on the way to PF.⁹² The subject is inserted into the specifier of a projection referred to as null *bithP* (a non-overt, nominal equivalent of little *v*),⁹³ and moves to the specifier of an Agr projection directly above it for checking (in NI the head of this subject Case-licensing AgrP is not overtly realised, while in SI it occurs as *aL*). Consider now how the key word order asymmetries between NI and SI, repeated below, are accounted

⁹²The claim that VN in Irish non-finite clauses is a nominal element is linked by Adger to checking and is based on the assumption that Irish non-finite clauses do not contain TP: a direct comparison is drawn with the VN *bith* in SG non-finite clauses (see (31) above), which are also assumed not to be TPs. SG *bith* is analysed as the nominal equivalent of the little *v* occurring in finite clauses i.e. it generates a subject in its specifier. The basic idea is that if SG *bith* were a verbal element it would not be able to check its V feature against T, since T is absent in SG non-finite clauses. As a nominal element it can M-merge with the particle *aL* which always precedes it in this environment. A parallel is then drawn with VN in Irish non-finite clauses which, like SG *bith*, is typically preceded by *aL*. This leads to the proposal that VN in Irish should be analysed as a nominal too (we return to the comparisons drawn in Adger (1996b) between SG and Irish in 5.5 below).

⁹³This *bith* in Irish is understood to be the null counterpart of the overt *bith* occurring in SG non-finite clauses (see example (31) above, and comments in footnote 88).

for on this system:

- (32) a. Ba mhaith liom sibh an doras a phéinteáil NI *SI
 COP good with-me you the door-acc aL paint-VN
 I would like you to paint the door
 b. Ba maith liom sibh a phéinteáil an dorais *NI SI
 COP good with-me you aL paint-VN the door-gen
 I would like you to paint the door'

In NI (32)a the direct object is preposed to [Spec, AgrP] and the strong N feature of VN M-merges with *aL* under Agr; the subject has moved to the specifier of a second AgrP projected directly above null *bith*, as illustrated below:

- (33) [_{AgrP} sibh_i [_{Agr} [_{nullbithP} t_i [_{nullbith} [_{AgrP} an dorais_i [_{Agr} aL [_{NP} [_N phéinteáil t_i]]]]]]]]]

The higher Agr head is not realised as *aL* because null *bith*, being non-overt, does not have a strong N feature requiring to be eliminated via M-merger.

In SI (32)b the direct object remains in situ (in genitive Case) and the null *bith* (which generates the subject in its specifier) directly dominates the NP headed by VN, as in the following:

- (34) [_{AgrP} sibh_i [_{Agr} aL [_{nullbithP} t_i [_{nullbith} [_{NP} phéinteáil an dorais]]]]]]]

The subject moves to the specifier of an AgrP above null *bithP* and *aL* is under this Agr head. As in NI, the N features of VN are eliminated via M-merger with *aL* under adjacency, with the difference here that the Agr projection headed by *aL* is above rather than below null *bithP*.⁹⁴ (32)a is ungrammatical in SI because in this dialect the direct object can remain in situ. Remaining in situ is considered to be a more economical option than for AgrP to be projected above VN (so that the direct object can be preposed). The head of the AgrP above null *bithP* in (34) is realised as *aL* to allow the N feature of VN to

⁹⁴ The notion that an intervening trace blocks M-merger (see 4.5.1 above) is not specifically mentioned in the earlier definition of M-merger employed in this paper although 'strict adjacency' is said to be a prerequisite (notice that the trace of the subject intervenes between *aL* and VN (lexical)).

be eliminated (via M-merger). (32)b is ungrammatical in NI because the more economical option (of leaving the direct object in situ, in genitive Case) is not available.

Although there are some obvious weaknesses in this analysis, the approach taken to *aL* and to feature-checking in general seems more promising than any found in the literature reviewed in 5.3. On the negative side, in the case of NI there is a lack of convincing motivation for M-merger rather than checking in a standard checking configuration (e.g. head adjunction): M-merger becomes necessary because VN is analysed as a nominal and therefore cannot otherwise have its categorial feature checked.⁹⁵ However, as argued in 5.2 above, the evidence that VN is actually verbal in this dialect is strong: since *aL* only ever follows internal arguments in NI it is reasonable for us to locate it under AgrO. But AgrO typically selects a verbal category, not a nominal. Moreover, if VN were nominal in NI, then there would be no way of explaining why the internal argument cannot remain in situ, as it can with deverbal nominals in English,⁹⁶ and with VNs in SI non-finite clauses. Finally, and perhaps most importantly, Adger indirectly attributes the word order asymmetries between the two dialects to the fact that in SI the direct object can remain in situ in genitive Case while in NI it cannot (recall the claim that in SI (32a) it is more economical for checking to be accomplished in situ than for an Agr head filled by *aL* to be projected above VN). However, no reason is offered as to why remaining in situ is an option in SI but not NI. The solution to the word order problem is therefore founded on another unsolved problem.

Apart from the issue of the category of VN, the assumption that the *aL* following external arguments in SI is located under Agr is also not well motivated, as already pointed out in 5.2 (recall that an inflected variant of *aL* never occurs with an external argument, either in SG or Irish). There is therefore little reason to treat *aL* as agreement in SI.

The most promising aspect of Adger's analysis, in our view, is its potential to explain how it is possible for VN to have an inherent N feature in a structure where there is no head available for it to check against in a standard checking configuration (i.e. either in a spec-

⁹⁵See footnote 92 above for Adger's argument that VN is a nominal (in both dialects).

⁹⁶Provided a dummy preposition is added.

head relation or via feature movement to an appropriate head at LF): in proposing M-merger with *aL* for such cases he solves the problem in a manner which is consistent with the M-merger account of (subject) Case-licensing in finite clauses outlined in Chapter 4, where adjacency is also a key issue. In addition to this, if, as we propose, feature elimination via M-merger with *aL* only applies in SI non-finite clauses, an explanation becomes available for the fact that *aL* has a much wider distribution in SI than in NI i.e. it is needed to eliminate the categorial feature of VN in that dialect, while in NI it is simply AgrO (which Case-licenses and marks agreement with a preposed internal argument in its specifier). Next we demonstrate in more detail how the analysis of the two dialects proposed above, in which both *aL* and VN are located under N^o in SI, and VN M-merges with *aL* in SI only, makes available a principled account of the three asymmetries introduced in 5.1.

5.4.2 Asymmetries between NI and SI

The first main difference identified between NI and SI was the fact that in the former there are two pre-VN slots available simultaneously for overt arguments, while in the latter there is only one (see (32a) above). The source of this difference, we propose, is the category of VN in SI, which is nominal, in contrast to NI where it is verbal. In NI, when the verb from which VN is derived has an internal argument there is an AgrOP between the two layers of a bi-partite VP. The VP in turn is dominated by a subject Case-licensing functional projection (FP) as in the following:⁹⁷

(35) $[_{FP} \text{subj}_j [_F [_{VP} \text{t}_j [_v [_{AgrOP} \text{obj}_i [_{AgrO} \text{aL}[_{VP} \text{t}_i]]]]]]]]]$ NI

Since AgrOP is directly above the inner VP layer no violation of ‘shortest move’ occurs when the subject moves to [Spec, FP] in this dialect. The fact that VN is verbal is consistent with the assumption that AgrO selects a VP rather than a NP complement. The V feature of VN, as indicated above, is checked against AgrO, while little *v* checks against

⁹⁷The category represented by F will be discussed in 5.5.

F. In the SI counterpart to (35), illustrated below, there is no AgrOP because VN is a nominal and is therefore not selected by AgrO:

(36) [_{FP} subj_j [_F [_{VP} t_j [_v [_{VNP} aL+obj (gen)]]]]]] SI

The N feature of VN is eliminated via M-merger under adjacency with aL, and the bipartite VP is selected by F, as in NI. A syntactic subject in SI, whether this be an external argument or an internal one (e.g. with an unaccusative VN), moves to [Spec,FP] for checking, since AgrOP is not present in non-finite clauses of this dialect. Like Guilfoyle (1994) we assume that PRO is an implicit argument in SI non-finite clauses.⁹⁸ This explains why, in examples like (24)c above with a transitive verb and a PRO subject, only one pre-verbal slot is required for checking i.e. [Spec, FP], and movement of the direct object to this position does not lead to a violation of shortest move.⁹⁹

The second difference between the two dialects was that in NI aL occurs with transitive VNs only (*bith/be*, *tar/come* and *dul/goil/go* excepted), while in SI it can also occur with intransitives. As already noted above, this issue is easily resolved on our account: aL appears with all VNs in SI non-finite clauses (the one exception to be addressed directly

⁹⁸ In this respect the VN (which provides the arguments) in SI would resemble nominals in English, which also (arguably) do not have a PRO subject:

- (i) a. *John saw PRO book
- b. *John fears PRO destruction of the city

'Picture' noun phrases give rise to a well known complication (see Manzini 1983), since PRO possibly occurs in [Spec, NP] in this context (to bind the anaphoric *them* in its 'governing category' NP):

- (ii) The boys saw [_{NP} PRO? pictures of them]

⁹⁹The shortest move violation occurring in the example cited in footnote 71 above, however, remains unaccounted for, since the subject which raises into the matrix clause must bypass [Spec,FP] (which on our analysis is filled by the preposed direct object of the non-finite clause). The possibility that this is not in fact a raising structure is not likely, in view of the considerable evidence in favour of raising put forward in McCloskey (1984): McCloskey points out that the target position of raising in examples of the above mentioned kind (i.e. object of P) has many features in common with the target position of a raised NP in typical raising constructions (e.g. with *seem*): i) there are no selectional restrictions imposed by the 'raising predicate' (any such restrictions are applied within the embedded clause); ii) the 'raised' NP can be an expletive (e.g. *weather it*); iii) the raised NP may take either wide or narrow scope. It is worth noting however that in the analyses of Irish non-finite clauses proposed in Bobaljik and Carnie (1996), Guilfoyle (1994) and Carnie (1995) these 'raising' constructions also cannot be accommodated. What this suggests is that there may be certain contexts in which the principle of shortest move is applied less strictly than in the general case.

below) in order to allow the N feature of VN to be eliminated via M-merger.

The third and last difference is that VN in NI is generally preceded by *aL* before *bith/be*, *tar/come* and *dul/goill/go*, regardless of whether the subject is PRO or lexical NP (see (4c&d) and (5a&b respectively)), while in SI *aL* is not expected with a PRO subject (see (4c&d)). The occurrence of *aL* in NI in this environment has already been explained above as a consequence of its being an AgrO particle which marks overt agreement with an internal argument. What remains to be explained, however, is the fact that *aL* does not appear in the same context in SI. If, as argued above, it is indeed under N⁰ and has the syntactic function of making M-merger available to VN, then it might be expected to be obligatory here.

Since *aL* does not appear in SI (4)a&b then the N feature of VN must somehow be checked in a standard checking configuration. Why this should be possible here but not in the other grammatical examples from this dialect (where M-merger with *aL* has been invoked) seems to be related to the fact that the VN in this case (i.e. in (4)a&b) does not have an overt argument while it does in all the others. If, for example, we compare (4)a&b with (5)a&b, in which the single argument of VN is overt, then an obvious difference between the two in terms of structure projected becomes apparent - [FP] appears in (5)a&b (to provide a checking domain for the subject),¹⁰⁰ but presumably not in (4)a&b where there is no overt argument requiring checking. The crucial point is that without an FP layer the VNP in (4)a&b is very similar to other nouns in the language. It can therefore be compared to the direct object in the following simple sentence:

- (37) Ba mhaith liom bainne
COP good with-me milk
'I would like milk'

What we suggest is that VN(nominal) in (4)a&b is a DP and has its categorial feature checked in the same way as *bainne* in (37) i.e. in a standard checking configuration so that

¹⁰⁰ FP in SI can also provide a checking domain for a preposed direct object e.g. (24c), as indicated above.

aL to allow feature elimination via M-merger is not required.¹⁰¹ When FP is actually projected above VNP (as proposed, for example, in SI (5a&b)) then Case-licensing from the matrix clause is not possible because VN is embedded in FP.^{102, 103}

Summing up this section as a whole, we have shown how distinct categorial analyses of aL and VN in NI and SI non-finite clauses can explain the three main asymmetries between the two dialects identified in 5.1. In the next section we examine the identity of F in the projection labelled FP above, which, as argued above, checks the D features of the subjects of both dialects in its specifier (and a preposed direct object in SI).

5.5 FP and Subject Case-licensing

As noted in the introduction to this chapter, there are several indicators that TP/IP (-fin), the category typically assumed to yield infinitival clauses in languages like English, French and German, does not underlie the Irish non-finite clauses under discussion here, in spite of their being widely referred to as TP/IP in the literature (e.g. Chung and McCloskey 1987,¹⁰⁴ Stowell 1989, McCloskey 1991, Guilfoyle 1994, Noonan 1995, Bobaljik and Carnie 1996). A major factor in determining the more traditional approach to the category of Irish non-finite clauses would seem to be the fact that they translate quite naturally into English as infinitival clauses. On closer examination, however, there are a number of

¹⁰¹The DP (VN) in examples of this kind has a PRO in [Spec,NP] (unlike VN in the SI non-finite clauses analyzed above) which is controlled by the matrix subject.

¹⁰²If VN in (5)a&b were to move into the matrix clause for checking then there would be a violation of 'shortest move' since [Spec,FP] would have to be bypassed.

¹⁰³Note that examples like the following are also ungrammatical in both dialects:

- (i) *Ba mhaith liom PRO a scríobh na habairte NI SI
 COP good with me aL write-VN the sentence-gen
 'I would like to write the sentence'

(i) is ungrammatical in NI because VN is verbal and therefore cannot assign genitive to an in situ object. It is ungrammatical in SI apparently because FP is projected and therefore the object must move to [Spec,FP]. The object only remains in situ when a second overt argument is also present, in which Case [Spec, FP] is occupied. What we cannot explain is why the overt argument must move in this example when it should have the option to remain in situ in genitive Case (recall that in Chapter 4 a weak version of Last Resort is assumed).

¹⁰⁴In fact Chung & McCloskey call them non-finite Ss headed by Infl.

striking differences between the two which suggest to us that they are structurally distinct.

In arguing this case we begin below by showing that the properties of Irish non-finite clauses which distinguish them from English infinitival clauses generally assumed to be TPs, are shared by the English Gerund Clauses analysed in Chapter 4 above;¹⁰⁵ this lends support to our view that Irish non-finite clauses, like these *NP+V-ing* clauses, are more likely to be AspPs than TPs (5.5.1). A comparison is then drawn between subject Case-licensing in SG and Irish non-finite clauses, which lends further support to the claim that Irish non-finite clauses are in fact AspPs (5.5.2).

5.5.1 Comparing Irish non-finite clauses and English Gerund Clauses

There are two major points of comparison between Irish non-finite clauses and English *NP+V-ing* clauses. The first of these concerns the manner in which a lexical subject is Case-licensed: unlike in infinitival clauses generally, ECM from the matrix clause is not required in either. McCloskey (1986)b has already made the point that the lexical subject of an Irish non-finite clause is not dependent for Case-licensing on syntactic properties of the lexical head of the matrix clause. The fact that the non-finite clause can be complement to: (i) a noun or adjective (both non-Case licensing heads); (ii) a non-ECM preposition,¹⁰⁶ or (iii) an impersonal verb like *tarlaigh* (happen), as illustrated in (38)a&b, (39) and (40) respectively below, bears this out:¹⁰⁷

- (38) a. Bheadh lúchair air iad a bheith i láthair
would-be joy on-him them be(-FIN) present
'He would be delighted for them to be present'
b. Bheinn sásta iad a bheith i lathair

¹⁰⁵For example:

(i) John remembers/recalls/regrets [Mary arriving early]

¹⁰⁶McCloskey refers to *indiaidh*/after as a preposition. In fact we would analyse it as an aspectual complementiser like *tar éis*/after, in view of the proposals in Chapter 4. Eitherway it is not associated with ECM.

¹⁰⁷McCloskey's (4)a, (5)b, (2b) respectively, followed by my own example.

I-would-be glad them be (-FIN) present
 'I would be glad for them to be present'

- (39) *Indiaidh mé imeacht*¹⁰⁸
 after me leave(-FIN)
 'after I leave/left'
- (40) *Tharla í a bheith i gceart*
 happen(PAST) she be(-FIN) alright
 'She happened to be alright'

The claim that the subject of *NP+V-ing* clauses in English is also not Case-licensed by ECM from the matrix clause has already been defended in Chapter 3 but can be illustrated again briefly here:

- (41) a. Mary was believed *t* to be clever
 b. *Mary_i was remembered/preferred/wanted *t_i* sitting beside us

The most likely cause of the ungrammaticality of (41)b is that the subject has moved from one Case position to another. However, if Case-licensing for the subject in the embedded clause were actually via ECM from the matrix clause then this should be blocked under passivisation, as it is in (41)a, allowing the subject to move to the subject position of the matrix clause for Case-licensing.

The second point of comparison between Irish non-finite clauses and English *NP+V-ing* clauses which distinguishes them from infinitivals generally, concerns the noun-like properties of the 'verb' form in both: the VN in Irish, as explained above, has the same

¹⁰⁸McCloskey's evidence that *i ndiaidh* is not ECM is based on the fact that in a simple prepositional phrase i.e. P(*i ndiaidh*)+NP the NP object of P is marked genitive Case. If the pronominal subject in (38) above (in which *i ndiaidh* takes a clausal complement) is replaced by a lexical NP, as in the following, the subject is not marked genitive:

- (i) *i ndiaidh* [an pobal imeacht]
 after the congregation leave(-FIN)
 'after the congregation leaves/left'

This shows that *i ndiaidh* in (i) and in examples like (39) does not assign Case to the embedded subject.

morphological form as a noun (and in SI, on our account, is also syntactically a nominal) but, unlike nominals generally, projects its arguments into a clause, not a nominal CFC i.e. not into a complex DP (see 5.2 above for discussion); this ‘hybrid-like’ characteristic of VN, reflected in the term ‘verbal-noun’ used to refer to it, is also shared by the English *NP+V-ing* clauses analysed in Chapter 3: although the *V-ing* occurring in these clauses is syntactically a verb (recall that it Case-licenses an in situ object in Accusative Case and, as in Irish non-finite clauses, takes an Accusative rather than a genitive subject), it shares its morphological form with nominals like *the opening of the Millennium Dome* (the so called *of-ing* gerund). Its hybrid characteristics are further reflected in the fact that it has been analysed in the literature by some as a DP (see, for example, Abney’s account of ‘acc-ing’ gerunds (i.e. *NP+V-ing*) in 3.2.2).

Crucially, the mixing of nominal and verbal characteristics associated with the ‘verb’ form found in Irish non-finite clauses and English *NP+V-ing* contrasts with the situation obtaining in unambiguous infinitival clauses where the verb occurs with a distinct morpheme marking it as an infinitive e.g. *to* (English); *-er* (French).

Turning now to the identity of the category labelled FP in (35) and (36): it has already been argued in Chapter 3 that in English *NP+V-ing* clauses the subject Case-licensing projection is AspP rather than TP. The two parallels outlined above between Irish non-finite clauses and English *NP+V-ing* clauses suggest that the former may also be AspPs. In the next subsection we show that a comparison between subject Case-licensing in SG and Irish non-finite clauses provides further support for this view.

5.5.2 Comparing subject Case-licensing in SG and Irish non-finite clauses

A comparison between subject Case-licensing in SG and Irish non-finite clauses has

already been proposed in Adger (1996)b.¹⁰⁹ Although Adger's analysis will be rejected below, the notion that certain parallels, in terms of underlying structure, do hold between the two will provide the basis for our own account of subject Case-licensing in Irish non-finite clauses. First, a brief overview of the structure of SG non-finite clauses and a summary of the relevant aspects of Adger's analysis.

5.5.2.1 Adger (1996)b and subject Case-licensing in SG and Irish

Finite clauses in SG, as in Irish, have VSO word order, derived from SVO by raising of the verb to Infl. In non-finite clauses¹¹⁰ the object is moved to pre-verbal position, provided the subject is non-overt, giving SOV order. (42)a below, therefore, with a non-overt subject and a preposed object, is grammatical, while (42)b is not:¹¹¹

- (42) a. Bu thoigh leam an doras a dhùnadh SG
 be liking with-me the door aL shut-VN
 'I'd like to shut the door'
- b. *Bu thoigh leam sibh/Mairi an doras a dhùnadh
 be liking with-me you/Mary the door aL shut-VN
 'I'd like you/Mary to shut the door'

Notice that SG resembles SI with regard to the potential for preposing of the object, and differs from NI where SOV is possible with either an overt or a non-overt subject. In SG, in contrast to both NI and SI, however, overt subjects are only licensed if *a bhith a'* is inserted following the subject and preceding VN,¹¹² in which case the object remains in situ as right sister to VN.¹¹³

- (43) a. Bu thoigh leam [sibh/Maire *a bhith a'* dùnadh an doruis]
 be liking with-me you/Mary aL be-VN PTC shut-VN the door-Gen
 'I'd like you/Mary to shut the door' (SG)

¹⁰⁹The analysis of aL in SG and Irish found in Adger (1996b) has already been reviewed in 5.4.1 above.

¹¹⁰As already noted above Adger uses the term 'VN clauses' for non-finite clauses.

¹¹¹Adger's (1a) and (2) respectively.

¹¹²The particle *a'* following *bhith* sometimes surfaces as *ag*. In other contexts it can be a marker of progressive Aspect (see, example (19a), Chapter 4), but it does not have progressive meaning here.

¹¹³Adger's (3) and (4) respectively.

- b. *Bu thoigh leam sibh/Mairi a dhùnadh an doruis
 be liking with-me you/Mary aL close-VN the door
 'T'd like you/Mary to shut the door' (SG)

Recall from above Adger's proposal that *bith* in SG is the nominal equivalent of little *v* (it is a VN, and like *v* lacks conceptual structure).^{114, 115} A *bhith a'* is needed in SG non-finite clauses, therefore, to generate a subject in the manner of little *v* in clauses generally.

Consider, now, how this theory is employed by Adger to explain the SG data, and then extended to account for subject Case-licensing in Irish non-finite clauses: in (43)a above the subject is generated in [Spec, NP] (NP is headed by *bith*) and moves from there to the specifier of an Agr projection above *bithP* where it has its D features checked, as illustrated in (44) below (the Agr head is overtly realised as *aL* to allow the strong N feature of *bith* to be eliminated via M-merger):

- (44) Bu thoigh leam [_{AgrP} Maire_i [_{Agr} a [_{NP} t_i [*bhith* [_{AgrP} a' [_{NP} dùnadh an doruis]]]]]]

(43)b is ungrammatical because there is no *bith* present to generate the lexical subject. In (42)a, where the subject is null, *bith* is not required on the assumption that PRO is not projected in the syntax. This non-finite clause, therefore, consists simply of an AgrP dominating an NP (headed by VN), as in the following:

- (45) Bu thoigh leam [_{AgrP} an doras_i [_{Agr} a [_{NP} dhùnadh t_i]]]

The analogy Adger proposes with Irish non-finite clauses is as follows: Irish has a null *bith* (as already noted in 5.4.above) with exactly the same syntactic function as its counterpart in SG. Recall that (on Adger's account) in examples like NI (24)a, in which there are two pre-VN overt arguments, the subject is in [Spec, AgrP] having moved there from [Spec, null *bithP*], and that in SI (24)b, with a pre-VN subject and an situ object in genitive Case, the subject is also generated in [Spec, null *bithP*] and moves from there to [Spec, AgrP] (here the Agr head is overtly realised as *aL*); (24)c, with a null subject, has exactly the

¹¹⁴See footnote 92 above.

¹¹⁵*Bith* becomes *bhith* following the particle *aL*. This is a regular process affecting all verbs in the language.

same structure as posited for the corresponding example in SG (see 45 above) i.e. there is no *bith* and the preposed object is in [Spec, AgrP].

As will be demonstrated next, there are problems with Adger's claim that *bith* in SG is the nominal equivalent of little *v* which become particularly evident in the light of the proposed parallel with Irish; they lead to the conclusion here that neither *bith* in SG nor its proposed counterpart in Irish generates a subject in the manner of a little *v*.¹¹⁶

5.5.2.2 Contra (null) *bith* as equivalent of little *v*

Consider the following Irish example, repeated from above, in which the unaccusative verb *teacht*/come takes a lexical subject:

- (46) Ghuigh sí é a theacht slán NI SI
pray-PAST she him-acc aL come-VN safe
'She prayed for him to survive'

É (him), here, clearly cannot originate in [Spec, null*bith*P] like other subjects on Adger's account since null *bith*, like little *v*, is only predicted to occur when there is an external argument in the derivation. The solution, of course, is to give this example the same structure as (45) above in which the subject is PRO, but not projected, and the direct object is preposed to [Spec, AgrP]. In other words, the sole internal argument of the non-finite clause in (46) would be in [Spec, AgrP], and null *bith* would not appear.

However, what would happen in the corresponding example in SG where *a bhith a'* must appear in order for a lexical subject to be licensed? It cannot appear if the VN heading the clause does not have an external argument i.e. with an unaccusative verb, and yet it must appear if the subject is to be lexical. If examples like (46) with an unaccusative verb (and

¹¹⁶The claim that SG *bith* is a nominal will not be rejected although its counterpart in Irish, contra Adger, will not be analyzed by us as a nominal.

an overt *bith*P) were simply prohibited in SG, then there would be no such problem. As far as we are aware, this is not the case and the objection holds.

A second problem concerns the selection properties exhibited by null *bith* and *bith* on this account: Irish null *bith* selects either AgrP or an NP predicate (i.e. (33) & (34), respectively, above), while SG *bith* selects AspP (e.g. (44)), but not AgrP ((33) with overt *bith* would be ungrammatical in SG). There are two discrepancies here, both of which are addressed by Adger: firstly, the claim that, in SI, NP is a predicate runs counter to the standard view in the literature that NP is not a predicate in Irish (see Chung and McCloskey 1987);¹¹⁷ secondly, the claim that SG *bith* cannot select AgrP as predicate is surprising in view of the fact that Irish null *bith* on the same account can select AgrP.

While the solutions offered could be described as fairly reasonable, an analysis in which they are not required in the first place seems preferable: it is argued that NP can, in principle, be a predicate in both Irish and in SG, provided its N feature can be checked/eliminated. Since M-merger with *aL* is possible in (34), the NP selected by null *bith* can be a predicate here (in contrast to this, the same derivation, (34), would crash if this were SG because *bith* is overt in this language and so both *bith* and the lexical VN would have N features to be checked/eliminated).¹¹⁸

To explain the proposed absence of AgrP complements to *bith* in SG, evidence involving SCs and clefting is provided to argue that AgrP simply cannot be a predicate in SG.¹¹⁹

¹¹⁷Adger cites the following example from SG (which shows the same patterning as Irish) to illustrate the point - the NP predicate of the SC is ungrammatical (Adger's (43d)):

(i) *Tha mi glic' ars' esan [_{SC} agus e tidsear]
 Be-pres I clever said he and he teacher
 'I'm clever' he said, and him a teacher'

¹¹⁸Similarly, checking/elimination via M-merger is not available in the examples cited in Chung and McCloskey as evidence that NP is not a predicate in Irish.

¹¹⁹Firstly, the ungrammaticality of the SC in (i), below, is cited to show that AgrP is prohibited as a predicate in SG; (ii) shows that a similar SC is allowed in Irish (his (63)&(64), respectively):

(i) *Feumaidh mi seo a dheanamh [_{SC} agus mo dhuthaich a shabhail]

Below an alternative account of the parallels to be drawn between subject Case-licensing in SG and Irish non-finite clauses is proposed which avoids the above difficulties but nevertheless includes the notion that *bith* in SG has a counterpart in Irish and that this projection is implicated in subject-licensing.

5.5.2.3 An alternative account of *bith* and null *bith*

In proposing an alternative here our main objective is to capture the fact illustrated in 5.5.1 that Irish non-finite clauses are significantly different from infinitival clauses/TPs both in terms of subject Case-licensing and in the morphological and syntactic characteristics of the lexical head which provides the arguments. Although Adger takes into account similar properties associated with SG non-finite clauses by proposing that, there, TP is not projected and that *bith* for this reason must occur in place of *v*, as demonstrated above the problems this gives rise to, particularly when the analysis is extended to Irish, suggest that it is not correct.

There is another way of explaining why *a bhith a'* must occur with a lexical subject in SG: what we propose is that *bith* allows the subject of VN (whether this be an internal or an external argument) to have its D features checked in a standard checking configuration i.e. in a spec-head relation with *bith*. *Bith* therefore heads a subject Case-licensing projection and in this respect is the equivalent of T in finite clauses. It selects AspP (headed by *a'*) which in turn dominates VP. The external argument is generated in [Spec, *v*P] (as already proposed for Irish in Chapter 4, section 2), not [Spec, *bith* P], so that the need for unaccusative verbs to be prohibited in SG non-finite clauses with a lexical subject is

-
- must I this Agr do and my country Agr save-VN
 'I must do this and (/if I am to) save my country'
 (ii) Tabharfaidh sé cnáimh le creinneadh dhó [_{sc}is an tír sin a choisint]
 give-fut it plenty with do-VN to-him and the country that Agr save
 'It will give him plenty to do and (if he is to) defend his country'

Secondly, it is argued that AgrP cannot be clefted with '*s am*', like other predicates in the language.

obviated. Because *bith* is a nominal, *aL* appears under the N° dominating *bith* to allow the N feature to be eliminated via M-merger, as proposed by us for VNs in SI non-finite clauses.¹²⁰

Consider now how the unexpected selection properties of *bith* and null *bith* described above can also be avoided. The assumption that SG *bith* selects AspP leads to an obvious comparison between *bith* and the aspectual auxiliary *be* in English, which takes either a progressive or perfect participle as complement (e.g. *to be running/to have been carried*):¹²¹ what we propose therefore is that the Irish equivalent of this SG subject Case-licensing projection is AspP, in keeping both with Adger's theory that SG *bith* has a direct counterpart in Irish, and with our claim above that English *NP+V-ing* and Irish non-finite clauses give rise to the same projection, namely, a clausal AspP (rather than a TP). Since on this approach SG *bith* and Irish Asp in non-finite clauses are categorially distinct (recall that *bith* is a VN and therefore nominal), in spite of having the same syntactic function i.e. to Case-license the subject of the non-finite clause in the absence of a TP, there is no expectation that the categories they select should be the same in the two languages: SG *bith* always selects AspP, while the related Asp head in Irish selects either VP (see NI (24a), and SI (24b) and (3a&b) above), or NP (as in SI (12a&b) and SI (24)c).¹²²

¹²⁰Notice that *bith* in SG has an inherent N feature (eliminated via M-merger with *aL*) and also checks the D features of the subject of the non-finite clause in a standard checking configuration. While this is clearly not a property of nominals generally, the nominal *bith* differs from other nominals in being without lexical conceptual structure i.e. it does not project arguments of the kind associated with a lexical NP.

¹²¹John [be [VP running]]

The aspectual features of *run* associated with the progressive inflection *ing* check against the Asp head *be* dominating VP. Notice that in SG *bith* selects AspP (headed by *a'*) while in English *be* selects a VP with a verb inflected for progressive aspect. The difference arises simply because in SG *a'* is the head of its own Asp projection whereas in English the aspectual morpheme is an inflection on V.

¹²²SI (12a) has the following structure:

(i) Ghuigh sí [_{AspP} é [_{Asp} [_{NP} a theacht]]] slán
 pray-PAST she him-acc aL come-VN safe
 'She prayed for him to survive'

SI (23)c, as explained in 5.4.2, has the following structure:

(ii) Ba mhaith liom [_{FP} an doras_i [_F [_{NP} a phéinteáil t_i]]] SI
 COP good with-me the door aL paint-VN
 'I would like to paint the door'

The F in (ii) is Asp.

Summing up this section as a whole, it has been argued that the category of the proposed subject Case-licensing projection in Irish non-finite clauses, labelled FP in the previous section, is AspP. In support of this view parallels have been drawn with English *NP+V-ing* clauses, analysed as AspPs in Chapter 3, and with the projection headed by *bith/be* in SG which occurs obligatorily with lexical subjects in non-finite clauses of that language and, like progressive *be* in English, takes a complement containing an aspectual morpheme (*ag*).

5.6 Conclusion

In this chapter we have argued, contra the general view found in the literature, that Irish non-finite clauses are AspPs rather than IP/TPs and that the subject of the clause is (typically) Case-licensed in a standard checking configuration in [Spec, AspP] rather than simply by default. In reaching this conclusion we have taken into account the fact that they have little in common with non-finite IP/TPs in languages like English and more with non-finite clauses in SG which arguably are also not IP/TPs. Moreover, they share a number of syntactic properties with Gerund Clauses in English which we have already argued in Chapter Three are AspPs.

The asymmetries between NI and SI relating to word order and the distribution of *aL* have been attributed to distinct analyses of both VN and *aL* in the two dialects - in NI VN is verbal and *aL* is AgrO, while in SI VN is nominal and *aL* a sublexical element which allows the nominal features of VN to be eliminated via M-merger in the morphological component (the V features of VN in NI are checked in a standard checking configuration against either AgrO or Asp at LF).

Our claim that VN is verbal in NI and nominal in SI is consistent with the fact that VN in

the latter case, only, can take an in situ argument in genitive Case and that a PRO argument appears not to be projected into the syntax; it also makes available an explanation for the fact that *aL* in NI occurs mainly with transitive VNs and therefore is arguably an AgrO head (and selects a verbal complement i.e. VN) while in SI it is not restricted in this way. By proposing that in SI *aL* is sublexical and has the grammatical function outlined above, we not only account for its freer distribution in SI but also provide further evidence that in Irish uninterpretable features can be checked via M-merger when checking in a standard checking configuration is not possible, as already argued in Chapter four.

Chapter 6

Conclusion

6.0 Asp as a Subject Case-licensing Head in Tenseless Clauses - reviewing the advantages and assessing the theory

In this thesis we have defended the claim that English Absolutes and Gerund Clauses, and certain Irish clausal adjuncts and complements to V cannot reasonably be assigned the category labels usually applied to clausal phrases in the literature - finite IP/TP, non-finite IP/TP or SCs. Our examination in Chapters 2 and 3 of the syntactic category of English Absolutes and English Gerund Clauses, and the manner in which the subject of these phrases is Case-licensed, has led to the conclusion that the inventory of clausal categories should be extended to include clausal AspPs in which the subject is Case-licensed via features on Asp which are a syntactic reflex of the aspectual properties of the predicate. Further support for this view has been provided in Chapters 4 and 5 where not only the traditional category labels, but also the familiar subject Case-licensing mechanisms, have been shown to be inadequate in accounting for the properties of the Irish clausal phrases referred to above - all have been analysed as additional instances of AspPs in which Case-licensing of the subject depends either on features of the Asp head, as proposed for English, or on M-merger. Below we first draw together briefly the main empirical advantages to be gained from positing clausal AspPs in English and in Irish (6.1). The theoretical limitations of our proposals are then discussed and some general conclusions are drawn (6.2).

6.1 Data from English and Irish: summing up the problems and the solutions

The need to reappraise the general assumption that IP/TP +finite, IP/TP- finite and SC are

the main if not the only clausal categories first arose in the light of a number of anomalies presenting themselves in English Absolutes and English Gerund complements to V which in both cases related to subject Case-licensing and could not be plausibly resolved within the terms of the more traditional approach.

Taking English Absolutes first, three main puzzles had to be solved: i) if an *NP+V-ing* Absolute were simply a (CP)IP (with *ing* capable of Case-licensing a subject in the manner of finite Infl) then what made examples like *Anne writing the letter..* and *John owning the Mercedes..* ungrammatical? ii) if verbless Absolutes (unaugmented by P) were also simply (CP)IP(+finite), with the difference that Infl in this case is not morphologically realised, then why would *the game over* be grammatical but *the game serious* ungrammatical? iii) if all Absolutes were (CP)IPs of the kind found in finite clauses (i.e. capable of Case-licensing a subject in the specifier) then why would lexical NP not be in complementary distribution with PRO in all cases? if, on the other hand, all were -finite (CP)IPs then how could the Case-licensing of a lexical NP subject be accounted for, particularly in examples where the Absolute was not augmented by P?

Our analysis of Absolutes showed that aspectual properties of the predicate (i.e. individual versus stage-level and a-telic versus telic) are crucial in determining whether and how a subject is Case-licensed: a-telic predicates always require either the presence of *ing* in the derivation or an ECM prepositional complementiser to Case-license the subject (the former in a spec-head configuration). Furthermore, when *ing* is the Case-licenser and the predicate is stage-level it must be affixed to a functional verb which raises the subject out of the lexical projection. Predicates which we have analysed as ‘derived telics’ require neither *ing* nor an ECM prepositional complementiser to Case-license the subject. In view of these observations, as well as the fact that there is little evidence of an independent Tense projection in Absolutes, the proposal that they are actually AspPs rather than IP/TPs emerged as the most plausible answer to the questions posed in (i)-(iii) above.

In the case of English Gerund complements to V, the main problem concerned the

distribution of lexical NP and PRO subjects which suggested strongly that they are not (CP)IP/TPs like main clauses and infinitives. If the gerund were a (CP)IP(+finite) then a lexical subject was incorrectly predicted to always be possible (and PRO consequently prohibited); if it were (CP)IP(-finite) then the issue could indeed be resolved, but only by invoking selection properties of matrix V so that some verbs would arbitrarily select CP only (allowing a PRO subject only), others IP only- where matrix V has an ECM property (so that PRO is prohibited), and others again either CP or IP (allowing lexical NP and PRO). However, apart from the fact that this approach would effectively consist merely of a description of the data, other compelling objections were raised, relating to the potential for syntactic movement of the gerund itself and the subject within it, which affirmed the view that an alternative categorial analysis was called for. The morphological similarities between *NP+V-ing* Absolutes and Gerund Clauses, considered together with other crucial facts concerning the relationship between lexical properties of matrix V and the temporal interpretation of its gerund complement, led to a more explanatory account in which Gerund Clauses are also AspPs with a tense feature on the head which conditionally Case-licenses a lexical NP subject.

The issues which had to be addressed in Irish also concerned subject Case-licensing in clause-like structures which did not sit easily either as traditional IP/TPs or SCs. These were the ‘*agus* adjuncts’ and CFC complements to lexical categories analysed in Chapter 4 (recall that these can have a verbless predicate or one in the form *ag+VN*), and the so called ‘non-finite clauses’ of Chapter 5.

The weaknesses we identified in previous analyses of ‘*agus* adjuncts’ and CFC complements to lexical categories were as follows: firstly, the notion of default Case for the subject had been posited largely due to the lack of plausible alternatives, which in turn was directly related to the assumption that the clause itself is a bare lexical projection and that ECM from outside is not available. Secondly, the *agus* preceding the lexical CFC was generally treated as a co-ordinating conjunction (on a par with English *and*), in spite of the fact that it differed considerably both in terms of distribution and semantic function from the uncontroversial co-ordinating conjunction *agus*. Thirdly, the assumption that these

were bare lexical projections ran counter to the *morphological evidence* of an AspP layer dominating the lexical CFC, at least when the predicate of the CFC contained the progressive marker *ag*, and to evidence from the placement of adverbials that these clauses do indeed contain functional structure above the lexical projection. By analysing them as AspPs of the kind posited for English and adopting the notion of feature-checking in the morphological component under adjacency (M-merger) we were able to dispense with the notion of default Case, to offer a more appropriate analysis of *ag*, and to take into account the arguably aspectual properties of *agus* in this environment.

Finally, in Chapter 5, the issue of subject Case-licensing in Irish non-finite clauses was addressed, together with differences between NI and SI in terms of word order and the distribution of the particle *aL*. Previous analyses had either invoked default Case here also or omitted any discussion of the subject Case-licensing facts. Moreover, accounts of the word order differences between the dialects were not convincing. We argued that in NI two overt arguments can appear before VN while in SI only one is possible because there is only one functional projection dominating the lexical CFC in SI, namely, AspP, while in NI there can be two - AspP and AgrOP. The claim that in both dialects Asp is the subject Case-licensing head was based on evidence from two sources: firstly, parallels with *NP+V-ing* complements to V in English concerning the lack of potential for the subject of either to be Case-licensed from outside the clause, and certain noun-like properties of the ‘verb’ form; secondly, comparisons with subject-Case-licensing in SG non-finite clauses where *a bhith a’* always appears following an overt subject. We argued that in SG subjects are Case-licensed in the specifier of the projection headed by *bith* - this *bith* was then shown to resemble progressive *be* in English, since like progressive *be* it selects a complement which is headed by an aspectual morpheme. This in turn led to the proposal that Irish has a non-overt counterpart to SG *bith* and that the category of this null *bith* is AspP.

The claim that AgrOP is absent in SI was based on evidence, firstly, that *aL* here is not an agreement particle (under AgrO), contra the view often expressed in the literature, and secondly, that VN is a nominal category while in NI it is verbal. Since AgrO is generally

assumed to select a verbal rather than a nominal complement it is not predicted to occur dominating VNP in SI. The proposal that the V features of VN in NI are checked in a standard checking configuration with Asp (or AgrO where Asp is absent) while the N features of VN in SI are eliminated via M-merger with α L allowed us to explain the wider distribution of α L in that dialect. Finally, we come to a discussion of the theoretical limitations, apparent and genuine, of the proposals summarised above.

6.2 Limitations

In concluding this thesis we must consider the extent to which the properties posited as the fundamental determinants of subject Case-licensing in English and Irish clausal AspPs may in any real sense be said to constitute a genuine class or set of properties comparable, for example, with the familiar +/-finite features associated with subject Case-licensing in IP/TPs.¹

The facts which might seem to indicate, contra our view, that they do not form a plausible set of properties can be summed up as follows: we have argued that in the case of English Absolutes it is the a-telic versus telic and individual versus stage-level distinctions which together determine whether and how a lexical NP is Case-licensed as subject, while in Gerund Clauses the crucial factor has been whether or not, on the basis of lexical properties of matrix V, the event described by the Gerund is interpreted as ‘unrealized’ or ‘realized’ with respect to the event in the matrix clause - in the former case a non-finite T feature licenses PRO only, in the latter a finite T feature licenses either lexical NP or PRO. In our account of Irish, on the other hand, the relationship proposed between subject Case-licensing and aspectual properties of the predicate has taken a different form: the conclusion with regard to Irish *agus* adjuncts has been that it is M-merger with *agus* which allows the subject to be Case-licensed - the relationship between the aspectual properties

¹The properties determining subject Case-licensing in TP clearly do form a genuine class, logically, i.e. when V is tensed, T is finite and licenses lexical NP only; when V is untensed T is -finite and licenses PRO only.

of the predicate and subject Case-licensing is therefore less obvious, and in this respect differs from the one proposed for English Absolutes. Finally, in the case of Irish SC and non-finite clause complements to a lexical head a T feature has been posited on the Asp head of the complement which has the same effect as the one proposed for English Gerund Clauses i.e. it Case-licenses a lexical NP subject - however, while in English it is argued that the T feature can have the value +/-finite (hence the lexical NP versus PRO alternation) no reference has been made to a distinction of this kind in the case of Irish - in other words the lexical NP versus PRO alternation in Irish has not been discussed.

It is clear from the situation just outlined that the principles and properties of subject-Case-licensing in clausal AspPs are more diverse than those found in IP/TPs; arguably, there are good reasons why this should be so. Take, to begin with, subject Case-licensing as proposed for English Absolutes versus Gerund Clauses. Since the latter are selected phrases i.e. the matrix verb is subcategorised for a Gerund Clause complement, while the former are not, it is not surprising that lexical properties of matrix V should influence the interpretation of the complement in the manner proposed i.e. with respect to whether the event described in the complement is understood to be contemporaneous with the matrix event, to precede it, or to follow it in time. If, on the basis of our analysis of English Absolutes, we are correct in assuming that aspectual properties of the predicate are the key to subject Case-licensing in AspPs then it is also not unexpected that where a full temporal-cum-aspectual interpretation of a clause depends on factors external as well as internal to it, as in the selected environment of Gerund Clauses, the conditions for subject Case-licensing should also involve additional considerations to those obtaining in non-selected environments. More specifically, in Gerund Clauses the temporal notions of preceding, following or being contemporaneous with the event of the complement interacts with the a-telicity associated with the *ing* affix on its verb, to yield a range of different interpretations. There is a dimension to the temporal-cum-aspectual interpretation of complement AspPs, therefore, which is absent in adjuncts, and which might reasonably be predicted to have a reflex in the syntax. The fact that the conditions for subject-Case-licensing are not the same might therefore be said to be predictable.

Consider next the differences identified above between subject Case-licensing in English Absolutes and Irish *agus* Adjuncts. There are two main reasons why the conclusions reached in each case should not be expected to be identical: firstly, there is the fact that the aspectual morphemes in English and Irish have different properties - in English Absolutes aspect can be morphologically realised as the verbal affix *ing* and/or via the (unbound) auxiliary *have*, while the aspectual morphemes found in the Irish adjuncts discussed i.e. *agus* and *ag*, are both unbound (with *agus* moving from Asp to C); secondly, M-merger is available in Irish as an additional subject Case-licensing mechanism to checking in a standard checking configuration. Consequently, the Asp head *agus* can and must move independently to clause initial position to be adjacent to the subject, while English *ing* only Case-licenses a subject in a spec-head configuration - it therefore moves for checking no further than the (Asp) head above the projection into which the verb (whether this be functional or lexical) to which it is affixed is inserted. The important parallel between English Absolutes and Irish *agus* adjuncts is the fact that in each an Asp head can generate a morpheme which Case-licenses the subject in the absence of a Tense projection: in Irish this is *agus*, in English it is *ing*.

Finally, we come to the gap in the theory that a T feature on the head of Asp is responsible for subject Case-licensing in English Gerund Clauses and Irish SC and non-finite clause complements to a lexical head: the question which remains unanswered is whether the proposed T feature in Irish also has the values +/-finite and if so whether this can account for the distribution of lexical NP and PRO subjects. Our aim from the outset in the case of Irish SC and non-finite clause complements to a lexical head was not to address the lexical NP versus PRO alternation but rather to find an alternative to the notion of default Case for a lexical NP subject (and to explain the word order in the case of non-finite clauses) by correctly identifying their underlying syntactic structure. This less ambitious approach was informed by the fact that the criteria adopted to account for the +/-finite value of the proposed T feature in English Gerund Clauses (i.e. whether the complement is interpreted as 'realized' or 'unrealized' with respect to the matrix) were in many cases not relevant in the Irish clauses: as demonstrated in Chapters 4 and 5 the lexical heads which select SC and non-finite clause complements in Irish are different from those selecting Gerund Clause complements in English, not only with respect to the range of

categories found (i.e. prepositions, adjectives and nouns, as well as verbs) but also, more importantly, in terms of the semantic properties of those heads, several of which are interpreted as adverbs of quantification e.g. *minic*/often, *annamh*/rare, *gnáthach*/usual. For this reason we have left the issue of the distribution of lexical NP and PRO subjects in Irish AspPs to future research. What seems clear however is that an analogy on the basis of category between English Gerund Clauses and Irish SC and non-finite clauses is justified. This at least makes available an explanation for the Case-licensing of lexical NP subjects in these phrases.

Summing up on the limitations referred to above: the fact that the exact conditions under which the Asp head Case-licenses a subject vary in each of the constructions analysed does not significantly undermine our claim that a genuinely motivated set of principles and properties has been identified. Where variation occurs it can be attributed to two main factors: i) the degree of syntactic independence attaching to the AspP clause i.e. whether it is an adjunct or a complement, since this affects its temporal-cum-aspectual interpretation; ii) the kind of aspectual morphology found in the phrases concerned, and how this interacts with the subject Case-licensing mechanisms available in that language.

Whatever genuine limitations there may be to the accounts of individual constructions proposed above, we hope at least to have demonstrated in this thesis that while the notion +/-finite is one important factor in determining how a proposition will be projected in the syntax (e.g. as +/-finite TP) and the kind of nominal which can appear as subject (e.g. lexical NP or PRO), aspectual properties such as a-telic versus telic and individual versus stage-level are also determinants in contexts where tense is not an independent syntactic projection. It remains to be seen whether our claim that telicity ranks second to finiteness in terms of its potential to Case-license subjects can be further substantiated with evidence from other languages.

References

- Abney, S (1987) *The English Noun Phrase in its Sentential Aspect*, Phd.Dissertation, MIT Press, Cambridge, MA
- Adger, D (1994) *Functional Heads and Interpretation*, PhD, University of Edinburgh
- (1996a) 'VSO Clause Structure and Morphological Merger', *York Research Papers in Linguistics*, YRPL- 97-01
- (1996b) 'Subjects and Finiteness in Irish and Scottish Gaelic', paper presented at the first Celtic Linguistics Conference, UCD, Dublin
- (1996c) 'Aspect, Agreement and Measure Phrases in Scottish Gaelic', in R.Borsley and I.Roberts (eds), *The Syntax of the Celtic Languages: a comparative perspective*, CUP, Cambridge, England, 200-222
- (2000) 'Feature Checking under Adjacency and VSO Clause Structure', *Syntax and Semantics, Volume 32, The Nature and Function of Syntactic Categories*, Academic Press
- Andersson, S (1972) *Aktionalität im Deutschen: Eine Untersuchung unter Vergleich mit dem Russischen Aspekt system*, Acta Universitatis Upsaliensis, Uppsala
- Aoun, J and D.Sportiche (1983) 'On the Formal Theory of Government', *The Linguistic Review*, 2, 211-236
- Arad, M (1996) 'Arguments and Events,' *ms* University College London
- Baker, M (1988) *Incorporation*, Chicago: University of Chicago Press
- Barss, A and H. Lasnik, (1986) 'A Note on Anaphora and Double Objects', *Linguistic Inquiry*, 17, 347-354
- Barwise, J (1981) 'Scenes and Other Situations', *The Journal of Philosophy*, 78, 369-397
- Benmamoun, E (1995) 'Agreement Asymmetries and the PF Interface', *ms* School of Oriental and African Studies
- Bobaljik, J (1992) 'Nominally Absolute is not Absolutely Nominative', *Proceedings of WCCFL XI*, UCLA
- (1995) *Morphosyntax: the syntax of verbal inflection*, PhD, MIT
- Bobaljik, J and A. Carnie (1996) 'A Minimalist approach to some problems of Irish word order', in R.Borsley and I.Roberts (eds), *The Syntax of the Celtic Languages: a comparative perspective*, CUP, Cambridge, England, 223-240

- Bobaljik, J and D. Jonas (1993), 'Subject Positions and the Role of TP', paper presented at Glow 14, Leiden
- Borer, H (1994) 'The Projection of Arguments', in E. Benedicto and J. Runner (eds), *Functional Projections. University of Massachusetts Occasional Papers 17*, 19-47, Umass, Amherst
- (1998) 'Deriving Passive without Theta Roles', in Lapointe, Brentori and Farell (eds), *Morphology and its Relations to Phonology and Syntax*, CSLI
- Borsley, B (1993) 'On so-called verb-nouns in Welsh', *Journal of Celtic Linguistics*, 2, 35-64
- (1994) 'In Defense of Co-ordinate Structures', *Linguistic Analysis*, 24, 218-246
- Bowers, J (1993) 'The Syntax of Predication', *Linguistic Inquiry*, 24, 591-656
- Boyle, D (1973) 'Ach and Agus as Coordinate and Subordinate Conjunctions in Gaelic', *Papers from the Comparative Syntax Festival Ninth Regional Meeting of the Chicago Linguistic Society* (Differences between Main and Subordinate Clauses), 220-228
- Brecht, R (1985) 'The form and function of aspect in Russian', in M. Flier and R. Brecht (eds), *Issues in Russian Morphosyntax*, Slavica Publishers Inc., Columbus, Ohio, 413-457
- Bresnan, J (1982)b 'The Passive in Lexical Theory', in J. Bresnan (ed), *The Mental Representation of Grammatical Relations*, MIT Press, Cambridge, Massachusetts
- Burton-Roberts, N (1986) *Analysing Sentences, An Introduction to English Syntax*, Longman, New York
- Carlson, G.N (1980) *Reference to Kinds in English*, Outstanding Dissertations in Linguistics, J. Hankamer (ed), Garland Publishing, Inc.
- Carnie, A (1995) *Non-verbal Predication and Head Movement*, PhD MIT
- Chomsky, N (1981) *Lectures on Government and Binding*, Dordrecht, Holland: Foris
- (1986) *Barriers*, MIT Press, Cambridge, Massachusetts
- (1992) 'A Minimalist Program for Linguistic Theory', *MIT Occasional Papers in Linguistics*. MITWPL, Cambridge, Massachusetts
- (1993) 'A Minimalist Program for Linguistic Theory' in K. Hale and S.J. Keyser (eds), *The View from Building 20*, Cambridge, Massachusetts, MIT

Press

- (1995) *The Minimalist Program*, MIT Press, Cambridge, Massachusetts
- Chomsky, N and H. Lasnik, (1977) 'Filters and Control', *Linguistic Inquiry*, 8, 425-504
- Chung, S and J. McCloskey (1987) 'Government, Barriers and Small Clauses in Modern Irish', *Linguistic Inquiry*, 18, 173-237
- Comrie, B (1976) *Aspect*, Cambridge, Cambridge University Press
- Curme, G.O (1931) *A Grammar of the English Language*, VOL III, D.C Heath and Company, Boston
- Dahl, O (1981) 'On the definition of the telic-atelic (bounded-nonbounded) distinction', in P. Tedeschi and A. Zaenen (eds), *Syntax and Semantics: Tense and Aspect*, Volume 14, 78-90
- Diesing, M (1992) *Indefinites*, Linguistic Inquiry Monograph 20, MIT, Cambridge, Massachusetts
- Doherty, C (1996) 'Predicate Initial Constructions in Irish', paper presented at WCCFL, Santa Cruz, 15
- Duffield, N (1990) 'Movement and Mutation in Modern Irish', *MIT Working papers in Linguistics*, 12, MIT, Cambridge, Massachusetts
- Emonds, J (1978) 'The Verbal Complex V'-V in French', *Linguistic Inquiry*, 9 151-175
- (1985) *A Unified Theory of Syntactic Categories. Studies in Generative Grammar 19*, Foris Publications
- Enç, M (1987) 'Anchoring Conditions for Tense', *Linguistic Inquiry*, 18, 633-657
- Franks, S and N. Hornstein (1992), 'Secondary Predication in Russian and Proper Government of PRO', in R.K Larson, S. Latridou, U. Lahiri and J. Higginbotham (eds), *Control and Grammar*.
- Garey, H (1957) 'Verbal Aspect in French', *Language*, 33, 91-110
- Gazdar, G., E. Klein, G.K. Pullum and I.A. Sag (1985) *Generalised Phrase Structure Grammar*, Oxford, Basil Blackwell
- Green, D (1979) 'Perfects and Perfectives', *Eriu*, 30, 122-141
- Grimshaw, J (1991) 'Extended Projection', ms Brandeis University
- Gruber, J (1976) *Lexical Structures in Syntax and Semantics*. Amsterdam: North-Holland
- Guilfoyle, E (1994) 'VNPs, Finiteness and External Arguments', paper presented at NELS, Amherst, 24, 141-155

- Haegeman, L (1991) *Introduction to Government and Binding Theory*, Blackwell, Oxford, UK
- Higginbotham, J (1983) 'The Logic of Perceptual Reports: an extensional alternative to Situation Semantics', *The Journal of Philosophy*, 80, 100-127
- Holmberg, A (1986) *Word Order and Syntactic Features in the Scandinavian Languages and English*, doctoral dissertation, University of Stockholm, Stockholm
- Johannessen, J (1993) *Co-ordination: a minimalist approach*, doctoral dissertation, University of Oslo
- Johnson, Kyle (1988) 'Clausal Gerunds, the ECP and Government', *Linguistic Inquiry*, 19, 583-609
- Kayne, R (1993) 'The Antisymmetry of Syntax', unpublished paper, CUNY
- Kiparsky, P and C. Kiparsky (1970) 'Fact' in: M. Bierwisch and K.E Heidolph (eds), *Progress in Linguistics*, Mouton, The Hague
- Koopman, H and D. Sportiche (1988) 'The position of subjects', ms UCLA, Los Angeles, California
- (1991) 'The position of subjects', *Lingua*, 85, 211-258
- Kratzer, A (1989) 'Stage-level and Individual-level Predicates', ms University of Massachusetts, Amherst
- Krifka, M (1989) 'Nominal Reference, temporal constitution and quantification in event semantics', in R. Bartsch, J. Van Benthem and P. Van Emde Boas (eds), *Semantics and Contextual Expressions*, Foris, Dordrecht
- (1992) 'Thematic relations as links between nominal reference and temporal constitution', in I. Sag and A. Szabolsci (eds), *Lexical Matters*, Center for the Study of Language and Information, CSLI, Stanford
- Laka, I (1993) 'Unergatives that Assign Ergative, Unaccusatives that Assign Accusative', *MIT Working Papers in Linguistics*, 18, 149-172
- Larson, R (1987) 'Extraction and Multiple Selection in PP', in M. Browning and D. Higgins (eds), *MIT Working Papers in Linguistics*, 120-134, MIT, Cambridge, Massachusetts
- (1988) 'On the Double Object Construction', *Linguistic Inquiry* 19, 335-391
- (1990) 'Double Objects revisited: reply to Jackendoff', *Linguistic Inquiry*, 21, 589-632

- (1991) 'Promise and the Theory of Control', *Linguistic Inquiry*, 22, 103-139
- Levin, B and Malka Rappaport (1986) 'The Formation of Adjectival Passives',
Linguistic Inquiry, 17, 623-661
- Manzini, R (1983) 'On Control and Control Theory', *Linguistic Inquiry*, 14, 421-446
- Manzini, R and A.Roussou (1997) 'A Minimalist Theory of A-movement and Control',
ms Firenze/UCL and University of Bangor
- May,R (1977) *The Grammar of Quantification*, doctoral dissertation, MIT, Cambridge,
Massachusetts
- (1985) *Logical Form: Its Structure and Derivation*. MIT Press, Cambridge,
Massachusetts
- McCawley, J (1983) 'What's with With', *Language*, 59, 271-287
- McCloskey, J (1979) *Transformational Syntax and Model Theoretic Semantics Vol 9: A
Case Study in Modern Irish*, D.Reidel Publishing Company,
Dordrecht:Holland
- (1980a) 'Is there Raising in Modern Irish?', *Eriu*, 31, 59-99
- (1980b) 'A Note on Modern Irish Verbal Nouns and the VP Complement
Analysis', *Linguistic Analysis*, 6, 345-357
- (1983) 'A VP in a VSO Language', in G.Gazdar, E.Klein and J.K Pullum
(eds), *Order, Concord and Constituency*, Foris, Dordrecht
- (1984) 'Raising, Subcategorisation and Selection in Modern Irish',
Natural Language and Linguistic Theory, 1, 441-485
- (1986a) 'Inflection and Conjunction in Modern Irish', *Natural Language
and Linguistic Theory*, 4, 245-281
- (1986b) 'Case, Movement and Raising in Modern Irish', *Proceedings of
WCCFL 4*, 190-205
- (1991) 'Clause structure, ellipsis and proper government in Irish', *Lingua*,
85, 259-301
- (1996) 'Subjects and Subject Positions in Irish', in R.Borsley and I.Roberts
(eds), *The Syntax of the Celtic Languages: a comparative perspective*, CUP,
Cambridge, England, 241-283
- McCloskey, J and K. Hale (1984) 'On the Syntax of Person-Number Inflection in
Modern Irish', *Natural Language and Linguistic Theory*, 1, 487-533
- McCloskey, J and P. Sells (1988) 'Control and A-Chains in Modern Irish', *Natural*

- McCoard, R (1974) *Tense Choice and Pragmatic Oppositions: A Study of Preterit/Perfect Oppositions in English*, dissertation, University of California, Los Angeles
- Milsark, G.L (1974) *Existential Sentences in English*, doctoral dissertation, MIT, Cambridge, Massachusetts
- (1988) 'Single-ing' , *Linguistic Inquiry*, 19, 611-634
- Mohanan, K,P (1982) 'Infinitival subjects, government and Abstract Case', *Linguistic Inquiry*, 13, 323-327
- Mourelatos, A (1981) 'Events, Processes and States' in P.Tedeschi and A .Zaenen (eds), *Syntax and Semantics: Tense and Aspect*, Volume 14, 191-212
- Napoli, D (1988) 'Subjects and External Arguments.Clauses and Non-clauses', *Linguistics and Philosophy*, 11, 323-354
- (1993) *Syntax. Theory and Problems*,Oxford University Press, New York
- Noonan, M (1995) 'VP internal and VP external AgroP: evidence from Irish', in *Proceedings of Thirteenth WCCFL*, R. Aranovich et al (eds), CSLI publications, Stanford
- O'Siadhail, M (1989)*Cambridge Studies in Linguistics. Modern Irish: Grammatical Structure and Dialectal Variation*, Cambridge University Press
- Ouhalla, J (1990) 'Sentential Negation,Relativised Minimality and the Aspectual Status of Auxiliaries', *Linguistic Review*, 7
- Pollock, J (1989) 'Verb Movement,Universal Grammar, and the Structure of IP', *Linguistic Inquiry*, 20, 365-424
- Ramchand, J (1996) *Aspect and Predicational Structure:Evidence from Scottish Gaelic*, ms (April), OUP, Oxford, UK
- Reichenbach, H (1947) *Elements of Symbolic Logic*, Macmillan, New York
- Reuland, E (1983) 'Governing-ing', *Linguistic Inquiry*,14, 101-136
- Rizzi, L (1979) 'Wh-movement, Negation and the PRO-drop parameter' , mimeograph Scuola Normale Superiore, Pisa
- Riemsdijk, Henk van (1978) *A Case Study in Syntactic Markedness*. Dordrecht: Foris
- Rosenbaum,P (1967) *The Grammar of English Predicate Complement Constructions*, MIT Press, Cambridge, Massachusetts
- Ross, J.R (1972) 'Double-ing' , *Linguistic Inquiry* 3, 61-86

- Safir, K (1993) 'Perception, Selection and Structural Economy', *Natural Language Semantics*, 1
- Sag, I., G. Gazdar, T. Wasow, and S. Weisler (1985) 'Co-ordination and how to distinguish categories', *Natural Language and Linguistic Theory*, 3, 117-171
- Smith, C (1991) *The Parameter of Aspect*, Studies in Linguistics and Philosophy, Volume 43, Kluwer Academic Publishers, Dordrecht
- Sportiche, D (1988) 'A Theory of Floating Quantifiers and its Corollaries For Constituent Structure', *Linguistic Inquiry* 19, 425-449
- Stenson, N (1981) *Ars Linguistica Commentationes analyticae et criticae: Studies in Irish Syntax*, Gunter Narr Verlag Tubingen
- Stenson, N and Norwood, S (1975), 'Aspect and Complementation in Q-Celtic', *Papers from the Eleventh Regional Meeting of the Chicago Linguistics Society*, 547-557
- Stowell, T (1982a) 'Subjects Across Categories', *Linguistic Review*, 2, 285-312
- (1982b) 'The Tense of Infinitives', *Linguistic Inquiry*, 13, 561-570
- (1989) 'Raising in Irish and the Projection Principle', *Natural Language and Linguistic Theory*, 7, 317-359
- (1995) 'The Phrase Structure of Tense', in *Phrase Structure and the Lexicon*, Johan Rooryck and Laurie Zaring (eds), Kluwer Academic Publishers, Dordrecht
- Stump, G (1985) *The Semantic Variability of Absolute Constructions*, D. Reidel, Publishing Company, Dordrecht/Boston/Lancaster
- Tenny, C (1987) *Grammaticalising Aspect and Affectedness*, Phd. Dissertation, MIT Press, Cambridge, MA
- (1994) *Aspectual Roles and the Syntax-Semantics Interface*, Studies in Linguistics and Philosophy, Kluwer Academic Publishers
- Thrainsson, H (1995) 'On the (Non)-universality of Functional Categories', ms Harvard University/University of Iceland
- Travis, L (1991) 'Inner Aspect and the Structure of VP', paper presented at the twenty first annual meeting of the North Eastern Linguistic Society, University of Ottawa
- Tunstall, S (1993), 'Case in Aspectual Perception Complements', in E. Benedicto and

J.Runner (eds), *Functional Projections*, University of Massachusetts
Occasional Papers, 17

Van Voorst, J (1988) *Event Structure. Current Issues in Linguistic Theory*, 59

Visser, F (1973) *An Historical Syntax of the English Language*, Part III, E.J Brill, Lyden

Vendler, Z (1967) *Linguistics in Philosophy*, Ithaca: Cornell University Press

Wasow, T (1977) 'Transformations and the Lexicon', in P.W.Culicover, T.Wasow and
A. Akmajian (eds), *Formal Syntax*, Academic Press, New York

Williams, E (1981) 'Argument Structure and Morphology,' *The Linguistic Review* 1,
81-114

----- (1987) 'Implicit Arguments, the Binding Theory, and Control', *Natural
Language and Linguistic Theory*, 5, 151-180

----- (1994) *Thematic Structure in Syntax*, MIT Press, Cambridge, Massachusetts