CLAUSAL ARCHITECTURE:
THE LICENSING OF MAJOR CONSTITUENTS IN A VERB INITIAL LANGUAGE
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Draft
Comments very welcome.

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THE PROBLEM AND THE PROPOSAL

1.1 STRUCTURAL POSITIONS AND THE LICENSING OF MAJOR CONSTITUENTS

One of the early goals of the Government and Binding approach within the Principles and Parameters framework was the motivation of transformations deriving various word orders of surface sentences. The primary motivation for movement was the notion of licensing. In particular, NPs moved to receive case licensing. One of the most important results coming out of this approach was the notion that the position immediately preceding tensed verbs in SVO languages was special in some sense, being intrinsically linked to "subjecthood". The basic semantic distinction between subjects and predicates thus had a structural correlate: subjects were to the left of and external to the predicate, in the specifier of IP. Infl, the head of IP, was nominative case assigner. The licensing of subjects in the specifier of IP seemed particularly attractive in light of the fact that the conditions on subject licensing appear to differ in finite and non-finite clauses. This could be attributed to different variants of INFL possessing different subject licensing properties, thus reducing the matter to a lexical rather than structural issue. In the past few years this basic approach to subjecthood has been maintained within a number of revisions to the theory of clausal architecture. Split IPs, multiple specifiers, the switch from a feature-building to a feature-checking approach and other innovations have all left intact the idea that the highest position of the highest functional category is associated with some basic notion of subject.

An empirical problem with such a proposal is found in languages that do not regularly license their subjects in this position. Foremost among these languages are the VSO languages, in which it can be shown (as will be seen below) that the subject is in a position lower than the specifier of the highest functional category. Consider the following sentence from Modern Irish:

(1) Leanann an t-ainmhmí an briathar i nGaeilge.

"The subject follows the verb in Irish."

If the verb occupies the highest head of the inflectional complex, and appears to the left of the subject, as we will show that it does in (1), it follows straightforwardly that the subject cannot be in the specifier of this highest functional projection. This raises questions about the nature of subject licensing in VSO languages. Do their subjects behave the same way as subjects in other languages? Are they licensed in the same manner as subjects in other languages? Why are subjects positioned differently in these languages? These are some of the issues we will address in this volume by analyzing the structure of Modern Irish.

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Carnie and Harley Clausal Architecture

Chapter 1

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In this structure we associate three of the properties commonly associated with subjecthood with three distinct structural positions. Starting at the top, we associate the highest functional projection, following McCloskey (1996), with properties that satisfy Chomsky's (1981) Extended Projection Principle requirement that every clause have a 'subject'. We claim that the features associated with this functional projection explain a wide number of properties associated with subjects in Modern Irish. In particular, we show that it is the weakness of these features that forces VSO ordering. Further, we correlate the strength of these features with certain surprising properties of subjects in infinitival clauses in Irish. We depart from more traditional views of clausal architecture in identifying this functional projection as TP, rather than AgrS. In this we follow Ouhalla (1994), who argues that TP dominates AgrS in all VSO languages. We differ from Ouhalla, however, in claiming that this functional structure is universal, and that the difference between VSO and SVO languages lies in the feature strength associated with the uppermost head, rather than in parameterization in the ordering of the functional projections themselves. Under TP, we have the functional projection AgrSP, which we associate with nominative case assignment. This is the position occupied by the subject NP in VSO languages. We argue extensively that the extension to the theory involving the licensing of multiple specifiers will account for the properties associated with items in this position, contra Chomsky (1995). Immediately under AgrS is a light vP, which introduces the external argument.

It is impossible to talk about the positioning or licensing of a single major constituent, like the subject, without also discussing the relative positioning of other major constituents. For the discussion of subject properties, we address these issues first. In chapter 4, we address the question of how the object is licensed, and develop a particular view of the functional projections in the lower part of the clause. In chapter 4, we address the question of how the object is licensed, and develop a particular view of the functional projections in the lower part of the clause. In chapter 4, we address the question of how the object is licensed, and develop a particular view of the functional projections in the lower part of the clause. In chapter 4, we address the question of how the object is licensed, and develop a particular view of the functional projections in the lower part of the clause.
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1.2 MINIMALIST ASSUMPTIONS.
Before turning to the arguments for the proposals we make above, we will quickly sketch our basic assumptions about the structure of grammar. In this work, we are assuming that the grammar is structured along the lines suggested by Chomsky (1991, 1993, 1995), known as the minimalist approach to principles and parameters syntax. For the most part, we will adopt the slightly older approach to minimalism found in Chomsky (1993) rather than the more radical "chapter 4" version found in Chomsky (1995), although we will make reference to that later work where appropriate and where our conclusions are in significant agreement or disagreement with it. The minimalist program for linguistic theory holds that the only conceptually necessary constraints on the grammar are those imposed by external conditions such as meaning and sound. There are two levels of interface between the grammar and such external systems. One is Phonetic Form (PF) which interfaces with the articulatory-perceptual system, and the other is Logical Form (LF) which interacts with the conceptual-intentional system. CHL is a series of operations that maps lexical items to these interface levels. The derivation starts with an operation SELECT which chooses items from the lexicon and identifies the number of times that item appears in the sentence. The set formed by this operation is called the numeration, which determines the reference set for cross-derivational comparisons by economy constraints. After the numeration has been determined, a series of other operations apply to lexical items to structure them into the sentences which we hear and understand. One of these operations is Merge, where the result of its application is a Bare Phrase Structure. Bare Phrase Structure, Chomsky (1994/1995b) introduced the following set theoretic notation for the output of Merge:

\[
(\gamma, \{\alpha, \beta\})
\]

\(\alpha\) and \(\beta\) are the items (or more precisely terms) that are being merged, \(\gamma\) is the label representing the whole constituent. Normally \(\gamma\) will be the set of unchecked features associated with one of the two terms. This set theoretic notation can be translated informally into the tree in (4).

\[
\gamma
\]

\[\begin{array}{c}
\alpha \\
\beta
\end{array}
\]

Notice that there are no X-bar theoretic constraints on the structures produced by Merge. The effects of X-bar theory are either read directly off the tree via some kind of structural algorithm (Speas 1990) which works with the constituent-to-constituent system or they are entirely underdetermined (Carnie 1995). Another operation that the derivation may undergo is Move/Attract. Move is a specialized kind of Merge (see Kitahara 1997 for a proposal that Move is entirely subsumed under Merge). Move takes an item that has already been integrated into the tree and copies it, then merges this copy back into the tree. This operation accounts for the various displacement effects that motivated transformations in early generative grammar. In earlier versions of minimalism (Chomsky 1991), Move was motivated by the featural requirements on the displaced item (Greed). In later versions the motivation lies in the requirements of the targeted position. This later formulation has come to be known as Developmental Competition by Economy Constraints. After the numeration has been determined, a series of other operations apply to lexical items to structure them into the sentences which we hear and understand. One of these operations is Merge, where the result of its application is a Bare Phrase Structure. Bare Phrase Structure, Chomsky (1994/1995b) introduced the following set theoretic notation for the output of Merge:

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\[\begin{array}{c}
\alpha \\
\beta
\end{array}
\]
Attract/Move can operate in two ways, by substitution or by adjunction. In the latter case, a complex label \(<\gamma,\gamma>\) is formed, indicating that the label is a segment of a category, rather than a category itself.

Attract is motivated by the requirement that formal features be checked against one another. For example, the tense features on a verb must be checked against the tense features of a functional head (or more precisely the features of the functional head must be checked against the features on the verb). This is accomplished by moving the verb into some local relation with the functional head. Within this local relation formal features are "checked." There are two potential local relations for feature checking: Specifier-head checking (via substitution) and head-head checking (via head-adjunction). It is not entirely clear what determines which locality relation is used. Chomsky (1995) claims that all movement is really movement of formal features. Bare features, however, require some phonological support, thus the movement of entire words or phrases is motivated by the phonological requirements of the formal feature. The issues here are again murky. For example, it isn't clear what phonological requirement forces an entire DP to move in the checking of a D-feature (however, see Noonan (1998) and Carnie (1995) for some speculations about non-phonological motivations). Here, we will assume that some such requirement underlies all movement, but will abstract away from the particulars.

The system outlined thus far makes the remarkable prediction that, issues of linearization aside, all languages should have identical syntactic derivations. This raises a basic empirical problem: languages clearly differ in the overt positioning of various components. For example, in some languages (e.g. English) wh-words seem to check their features in the specifier of CP, but in other languages (e.g. Japanese) they are allowed to remain in situ. Similarly, in some languages finite verbs appear to raise overtly (such as in French and Irish), but in others they seem to remain in situ (English). To account for these differences, Chomsky (1993) appealed to the idea that all operations are identical both quantitatively and qualitatively cross-linguistically, but languages differ from one another in the timing of these operations with respect to another operation, called Spell-Out. This operation, applied only once in the derivation, strips off features relevant only to the PF interface level, leaving the remainder for LF. Movement operations are timed relative to this Spell-Out operation. Overt movements (such as wh-movement in English) occur after Spell-Out, whereas covert movements in English or wh-movement in French) are made before Spell-Out. Certain movement operations (such as spell-out or non-teleonomic modifications) Here, we will assume that some such feature checking (via substitution) and head-head checking (via head-adjunction). If there isn't any feature checking (via substitution) and head-head checking (via head-adjunction). If there isn't any movement is really movement of formal features. Bare features, however, require some phonological support, thus the movement of entire words or phrases is motivated by the phonological requirements of the formal feature. The issues here are again murky. For example, it isn't clear what phonological requirement forces an entire DP to move in the checking of a D-feature (however, see Noonan (1998) and Carnie (1995) for some speculations about non-phonological motivations). Here, we will assume that some such requirement underlies all movement, but will abstract away from the particulars.
The timing of operations is determined by the complex interaction of language-specific lexical variation in feature "strength" on certain lexical items with a set of cross-derivational fitness metrics called the economy constraints. Features that must be checked before Spell-Out are marked as "strong" in the lexicon. Those that may be checked covertly are marked as "weak". The economy constraint of Procrastinate (loosely, "wait as long as possible to perform a given operation") delays all weak feature checking until the covert component.

Another notion of locality is found in the economy constraint of Shortest Move (Chomsky 1993), which has been reworked as the Minimal Link Condition (MLC) in later style minimalism. Shortest Move held that given two targets, an element undergoing movement had to move to the closer position. Under certain circumstances, two targets could be made equidistant by the operation of verb movement. This was an economy constraint in the truest sense. A derivation with a Shortest Move violation would be dispreferred to one without such a violation. The MLC, by contrast, isn't properly a cross-derivational economy constraint. Rather, it is a condition on the application of the Attract operation. Chomsky defines the MLC as:

\[
\text{Minimal Link Condition}
\]

\[
\text{K attracts } \alpha \text{ only if there is no } \beta \text{ closer to } K \text{ than } \alpha, \text{ such that } K \text{ attracts } \beta.
\]

For our purposes in this book, the difference between Shortest Move and the MLC is unimportant. Here, we will adopt the MLC terminology. However, it should be noted that for purposes in this book, the difference between Shortest Move and the MLC is unimportant.

The final set of assumptions which we should outline here have to do with the process of linearization. As noted above, derivations of CHL do not result in ordered trees, rather, they result in unordered pairs. We will follow Chomsky (1995)'s adaptation of Kayne's (1994) Linear Correspondence Axiom (LCA). The LCA imposes a linear order on derivations of a simple, non-recursive sentence. The primary recursive assumption is to do with functional categories. As we consider the definition of a simple, non-recursive sentence, let's begin with the operation of Merge which forms the structure from lexical items:

The operation of Merge applies next taking items from the numeration and reducing their numerical index by 1. If overlap occurs, the Merge operation reduces items in a way where the number of times a word appears in the derivation depends on whether the item was affected by the Merge operation. For the purposes of this discussion, we will assume that the MLC represents all the formal features associated with the functional complex. The numbers in the pairs in (7) indicate the number of time a word appears in the derivation. The LCA imposes a linear order on derivations of a simple, non-recursive sentence. Let's consider the definition of a simple, non-recursive sentence:

\[
\text{The LCA imposes a linear order on derivations of a simple, non-recursive sentence.}
\]

Let's consider certain assumptions to do with functional categories. As we consider the definition of a simple, non-recursive sentence, let's begin with the operation of Merge which forms the structure from lexical items...
By assumption, there are two formal features in this tree that need to be checked. One is the strong EPP (or alternatively nominative Case -- see chapter 3) feature of the INFL node, and the other is the Tense V-feature of the INFL node. The EPP feature, being strong, must be checked in the overt syntax. This is accomplished by the attraction of the closest D-feature (contained in the DP [the platypus]). The DP containing this feature is thus copied and merged with the highest INFL node:

{INFL {INFL {arrived {arrived, [the {the, platypus}}]}}}  

The bottom copy is not pronounced, which we indicate by the strike-through. The D-features of [INFL] and [the platypus] are checked in this local relation. The next thing to occur is the operation of Spell-Out, which peels off the features relevant only to the phonology and sends that part of the derivation to PF, where the LCA applies and linearizes the string into the sentence we hear/articulate. The rest of the derivation continues on its way to LF in the covert component. The weak V-features of INFL are checked by the covert adjunction of those features from the verb to INFL.

1.3 MULTIPLE FUNCTIONAL HEADS VS. MULTIPLE SPECIFIERS

There is one area in which we are in significant disagreement with Chomsky (1995), concerning the number and nature of functional categories. Chomsky claims, contra earlier work in the Minimalist approach, that the functional category Agr is a meaningless category that is absent from work in the Minimalist approach. He thus considers Agr to be a category that is purely grammatical (i.e. it links two elements in a clause) rather than having a semantic function. He thus considers AgrP's to be falsified, claiming that their effects can be equally accounted for using multiple specifiers of the semantically motivated functional categories. Here, we will argue that there are two formal features in this tree that need to be checked with a reasonable version of minimalist theory. In chapter 3, we show that in Modern Irish,农 can be checked by the covert adjunction of those features from the verb to INFL. In chapter 4, we look at the motivation for movement to subject position. For the reasons we have already given, we do not deny the importance of the Minimalist Program. The key of the argument is to show that the development of minimalist theory is not automatic within the functional heads in Principles and Parameters theory, particularly within theSUBMODULE, English Grammar FOR PRINCIPLES AND PATTERNS THEORY

1.4 EMPIRICAL VS. CONCEPTUAL ARGUMENTS FOR SYNTACTIC THEORY

One of the recent trends in Principles and Parameters theory, particularly within the minimalist program, has been the development of arguments for particular versions of the theory based entirely upon conceptual grounds. While we do not deny the importance of conceptual arguments, it is our strong belief that we must not lose sight of perhaps the most important goal of linguistic theory: to develop a theory that is at least minimally empirically adequate. The study is primarily empirically driven, rather than conceptually driven. While we use conceptual arguments when they are consistent with the data, we believe that wherever possible an empirical argument takes primacy. Take for example the issue of AgrO mentioned above. We present strong empirical evidence in favor of the existence of a head农 in Modern Irish,农. The study is primarily empirically driven, rather than conceptually driven.

AgrO and Harpy

Causal Architecture

Come and Harpy

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Causal Architecture

Come and Harpy

AgrO and Harpy

Causal Architecture

Come and Harpy
Finally, we would like to address the question of the universality of the approach we intend to pursue. In order to develop an in-depth study of clausal architecture, we here investigate the word order behavior of one specific language: Modern Irish Gaelic, a VSO Celtic language spoken by about 30,000 people on the extreme western coast of Ireland. The conclusions reached in this volume are primarily about the behavior of arguments in one specific VSO language. Notice that although we are proposing that the clausal architecture we develop here is universal, it is not necessarily the case that all languages with VSO order derive their word order in the same way, even when using the same basic tools. Consider the comparable situation in SVO languages discussed in the classic paper by Pollock (1989). Pollock noticed that outwardly similar SVO declarative sentences in English (11a) and French (11b) have quite different behaviors with respect to negation (11e-f), adverbial placement (11c-d) and yes-no question formation (g-h).

(11) a) Kenneth sees Art each year
    b) Pierre voit Stefan chaque année.

In English VP-adverbials like "often" appear to the left of main verbs in English, but to the right of verbs in French. Similarly, the negation morphemes "not" and "pas" appear to the right of verbs in French, but to the left of main verbs in English. Pollock attributes these distinctions to fundamental differences in the way in which SVO order is derived in the two languages: French SVO involves verb-movement whereas English does not. Similarly, we claim that there is no a priori reason why all cases of VSO order are necessarily derived from essentially the same basic structural templates. Several approaches to the theoretical derivation of VSO order have been proposed (see Hale 1980, Schwartz 1972, Anderson 1984, Awberry 1976, Tallerman 1990, Stenson 1981, McCloskey 1979, 1980, and Chung 1983) which held there was no underlying VP in VSO languages and that the clausal tree was flat with no hierarchical structure. The sentence "Kenneth sees Art each year" can be analyzed in either of these ways: "Kenneth sees Art each year," or "Each year Kenneth sees Art."
Chung (1995) has recently argued that in Maori, VSO order is derived by postposing the object from an underlying VOS order. We will not be considering any of these possible derivations of VSO for Irish, since, as will be seen in chapter 2, the evidence is overwhelming that a verb-movement approach to Irish word order is correct. In Appendix A, we have provided extensive discussion of non-verb-raising approaches to VSO order and some discussion of why they are not applicable to Modern Irish.

1.7 OUTLINE OF MONOGRAPH

The primary focus of this volume is on the licensing of constituents in verb initial languages. An obvious prerequisite to understanding this topic is a discussion of how a verb comes to be clause-initial. This is the focus of discussion in chapter 2. There, we will discuss VSO order in detail. We will then turn to the more central issue of subject placement. After McCloskey (1996b), we show that Irish is a language which shows strong case features (which we associate with AgrSP) but weak EPP features (linked to TP). Finally, in chapter 5, we show that the position of the subject between the clause-initial verb and the base position of the subject is controlled by various functional morphemes and non-subject arguments. We will show that objects shift in the syntax to a position higher than the base position of the verb but lower than the base position of the subject arguments in the clause. In particular, we will show that objects shift higher than the base position of the subject.

The primary focus of this volume is on the licensing of constituents in verb initial languages. An obvious prerequisite to understanding this topic is a discussion of how a verb comes to be clause-initial. This is the focus of discussion in chapter 2. There, we will discuss VSO order in detail. We will then turn to the more central issue of subject placement. After McCloskey (1996b), we show that Irish is a language which shows strong case features (which we associate with AgrSP) but weak EPP features (linked to TP). Finally, in chapter 5, we show that the position of the subject between the clause-initial verb and the base position of the subject is controlled by various functional morphemes and non-subject arguments. We will show that objects shift in the syntax to a position higher than the base position of the verb but lower than the base position of the subject.

For Chamorro, Chung (1993) has recently argued that in Modern VOS order is derived by clausal architecture...
Chapter 2

THE POSITION OF VERBS IN IRISH

2.0 INTRODUCTION

The first major constituent of Irish which we consider the positioning and licensing of is the verb. We will begin by reviewing the evidence raised primarily in the work of McCloskey (1983) for an underlying VP constituent and verb-raising approaches to VSO order. Further evidence supports the view that the verb is base-generated in a lower position in the clause.

McCloskey (1983) presents some evidence that Modern Irish verbs do not move to C° but to a lower position in the inflectional complex. We will consider and reject the possibility that the verb is located relatively low in the inflectional complex as argued by Duffield (1995).

2.1 UNDERLYING CONSTITUENCY

Consider the simple VSO sentence in (1):

1) Leanann an t-ainmní an briathar i nGaeilge
   'The subject follows the verb in Irish'

This sentence seems to lack an overt VP constituent, since the verb and its complements are separated by the subject. McCloskey (1983) however presents some evidence that there is no underlying VP in Irish. In particular, he shows that participles and objects in Irish form syntactic constituents. This constituent consists of the progressive participle and object (in bold-faced in the sentence below):

2) Tá na teangeolái [ag ól an beorach]
   'The linguists [are drinking the beer]' "The linguists are drinking the beer"

These sequences obey several standard tests for constituency in Irish. Only maximal projections may be clefted, and more specifically, only one maximal projection may be clefted at a time:3) *[Ull] [don ghasúr] a thug sé
   '[apple] [to-the boy] [wh gave he] "It was an apple to the boy that he gave"

In contrast, the progressive participle and the direct object can be clefted together:

4) Má's [ag cuartughadh leanbh do dhearbhrathra]
   [if+C [prog seek child your brother]]
   "If it is seeking your brother's child that you are...."

(McCloskey 1983: 14)

From these observations, it follows that when the verb is base-generated in a lower position, the subject follows the verb. This is consistent with the analysis proposed by McCloskey (1983) that Modern Irish verbs do not move to C°.

Knowing that many languages seem to have an operation of verb raising (e.g. French), it is not difficult to imagine that VSO order is derived via a similar operation, by which verbs simply raise to a functional projection higher than the base-position of the subject. Emonds (1980) was among the first to argue for this kind of approach to VSO order.

To summarize, we will consider the possibility that the verb is base-generated in a lower position in the clause. After a closer discussion into the syntax of verbs in Old Irish, which seems to show-dialects that are closer to the VSO order in Modern Irish, we will begin by reviewing the evidence raised primarily in the work of McCloskey (1983) and Sadler (1988) for an underlying VP constituent and verb-raising approaches to VSO order.
2.2 IRISH ELLIPSIS AS EVIDENCE FOR RAISING

McCloskey (1991), building on research by Chung and McCloskey (1987), provides strong evidence in favor of a verb-raising approach to VSO order for Modern Irish. He proposes the analysis schematized abstractly in (5). For the moment, we will abstract away from exactly what heads and specifiers the elements in the Irish sentence actually occupy, since McCloskey's arguments hold quite independently of what the actual locations of the verb and arguments are. We will return to exact location of these elements in later sections and chapter 3.

In (5) the verb has raised around the subject to a head higher than the surface position of the subject. This is the essence of the verb-raising approach to VSO order. What McCloskey noted is that in a structure like (5), once the verb has raised, there exists a constituent which consists of the subject, the trace of the verb, and the object (represented by ZP in (5)). This is true independently of the surface location of the verb and its arguments, as long as the verb has raised around the subject. The claim here is that if such a grouping passes tests for constituency separate from the verb, then we have evidence for the verb-raising analysis.

McCloskey's prediction is borne out. There is extensive evidence that the subject and object (and other VP internal material) do, in fact, form a constituent. Let us first consider the test of right node raising. The ZP constituent (the entire sentence minus the finite verb) appears rightmost in a Right Node Raising structure:

6) Níor thug, nó is beag má thug,
[an pobal aon aird ar an bhean bhocht]

The community paid no attention or almost no attention to the poor woman.

According to McCloskey, only constituents may participate in such structures. Therefore we may conclude that ZP is such a constituent.

The most compelling evidence for such a constituent, however, comes from ellipsis phenomena. Irish has a process of VP ellipsis which parallels English VP ellipsis in many ways. It applies under identity to a linguistic (i.e. non-pragmatically defined) antecedent. It is immune to island constraints. It may apply "backwards" (with the antecedent following the elided material). It tolerates antecedent-contained deletion. Finally, it shows strict/sloppy pronominal interpretations. McCloskey thus claims that this phenomenon is the Irish equivalent of English VP ellipsis. It differs from English VP ellipsis, however, in what is deleted. In English, the subject obligatorily remains, but the verb...
and the object (and any other VP internal material) is elided and replaced with did (too). In Irish on the other hand, the verb is the one element which is not elided, rather, it is the ZP constituent which is elided:7) English: S V O  and S V O  
Irish V S O  and V S O  
8) Duirt mé go gceannódh sí é agus cheannaigh subj object  
said  I that would.buy she it and bought . 
I said that she would buy it and she did. 
As McCloskey notes "...the almost unanimous view in the literature is that the elided material in VP ellipsis forms a syntactic constituent." The raising analysis, with a ZP constituent, provides us with an elegant account of these facts. The verb has raised outside of the domain of the ellipsis process, whereas the subject and object remain within the ZP constituent, which is elided3. The evidence from ellipsis is thus in favor of a verb raising approach to VSO order. 

A problem for McCloskey's story, however, lies in the fact that the ZP constituent fails several standard tests for constituency in Irish. For example, it cannot be the focus of an only phrase (9) and cannot be clefted (10):

9) *Ní chonaic ach [beirt an duine] 
Neg saw  but two-people the man"only two people saw the man"

10) *[Seán teach i nDoire] a cheannaigh 
John  house in Derry C bought“It was John a house in Derry that bought”

3McCloskey (1991) claims that this constituent is the VP, accounting for the parallels to English VP ellipsis. We will return to this below.

McCloskey claims however, that these violations should not be taken as evidence against the constituency of ZP. Instead, he shows that the ungrammaticality of sentences like that in (9)and (10) follows not from a lack of constituency, but rather from a violation of the ECP.

Recall that the constituent ZP has the trace of the verb movement in it. If ZP is fronted to the beginning of a clause in a cleft (higher than the verb), or is right-adjoined to the clause in an only-focus, then the trace is not antecedent governed by the verb, accounting for the ungrammaticality of the forms. This is seen in the bracketed diagram of a cleft in (11).

11) *[\[CP[ZP Subj  tv Obj \] C  \[IP V [  tzp\]]\] ]

These putative exceptions now account for McCloskey's claim that the subject and VP material, less the finite verb, form a syntactic constituent, lending strong support to a verb movement analysis of Irish VSO. 

2.3 VERB-RAISING TO WHERE?

Let us accept then McCloskey's basic claim that V-raising in Irish is derived from underlying SVO order. This is seen in the fact that the clause order of the cleft in (11) in which we have moved the subject (the ZP constituent) to the beginning of a clause is the same as in the plain sentence.

The question then is: where does the verb move to? One possibility is that the verb moves to the complementizer head of the cleft, which we will identify as CP, as in (12).

12) \[CP[Subj tv Obj] C  \[IP V [  tzp\]]\] 

In this case, the verb moves to CP, and the subject and object remain within the domain of the cleft.

Another possibility is that the verb moves to an INFL projection, which is at the highest projection in INFL. The verb has raised to AgrOP (Bobaljik and Carnie 1996) and TP (Duffield 1996) within INFL. The verb has raised to AgrOP (Bobaljik and Carnie 1996) and TP (Duffield 1996) within INFL. 

In either case, the verb moves to a position higher than the subject and object, which remain within the ZP constituent. This accounts for the ungrammaticality of the clefted sentences in (9) and (10).

We will argue in the next section that the verb moves to AgrOP, which we tentatively identify as TP. 

2.3.1 Raising to CP

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2.3 VERB-RAISING TO WHERE?

Let us accept then McCloskey's basic claim that V-initial order in Irish is derived from underlying SVO order via V-raising. The next question that arises is the location of the landing site of this movement. Various proposals have been put forward, including a V2-like movement of the verb to the complementizer head, and raising to various INFL projections, including AgrSP (Bobaljik and Carnie 1996, Duffield 1991, Noonan 19XX), TP (Duffield 1996, McCloskey 1996) and AgrOP (Bobaljik and Carnie 1996). Here, we will present a proposal: raising in AgrOP (Bobaljik and Carnie 1996) and AgrOP (Bobaljik and Carnie 1996) within INFL. Variable projections have been reformulated in a number of different ways, including the one presented here. 

A problem for McCloskey's story, however, lies in the fact that the ZP constituent fails several standard tests for constituency in Irish. For example, it cannot be the focus of an only-focus, and cannot be clefted.

In either case, the verb moves to a position higher than the subject and object, which remain within the ZP constituent. This accounts for the ungrammaticality of the clefted sentences in (9) and (10).

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Perhaps the earliest raising analysis of VSO order involves the raising of the verb to the complementizer head in a manner familiar from V2 languages and from question formation in SVO languages like English. This approach to VSO order was first proposed by Emonds (1980), who suggested that all verb fronting was motivated by "attraction to the complementizer." This approach was also popular in the early work in the Government and Binding framework (Stowell 1989, Déprez and Hale 1986, Hale 1989). More recently it has been proposed to account for the change from V2 in Middle Welsh to VSO in Modern Welsh by Clack (1994) and Sáinz (1994), for Pembrokeshire Welsh by Watanabe (1993) and for Old Irish VSO by Carnie, Pyatt, and Harley (1994) and Carnie, Harley and Pyatt (forthcoming).

German and Dutch are typical examples of V2 languages. In tensed clauses without an overt complementizer, the verb must appear in "second position." The first position in the sentence is occupied by any constituent. In example (12) below (data from Haegeman 1991), the verb kaufte always appears in the second position, and any of the other elements (the subject Karl, the object dieses Buch, or the temporal adverb gestern) can appear in the first position. The standard analyses (den Besten 1981, Platzack 1986a, b, 1987, 1995 among many others) of V2 hold that there is a requirement that the complementizer position be filled in tensed clauses. The verb raises to the empty complementizer position in matrix clauses. There is an additional requirement that the specifier of a matrix clause is filled by some constituent (the CP head in tensed clauses). The verb raises to the empty complementizer position in matrix clauses. The specifier of a matrix clause must appear in second position.

In example (13) below (data from Haegeman 1991), the verb kaufte always appears in the second position, and any of the other elements (the subject Karl, the object dieses Buch, or the temporal adverb gestern) can appear in the first position. In clauses with overt complementizers, by contrast, there is no V2 ordering. The verb appears in final position:

13) Ich dachte daß Karl gestern das Buch gekauft hat
I thought that Karl yesterday the book bought has
'I thought that Karl bought the book yesterday'.

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An obvious extension of this approach is to posit a set of languages where verbs must raise to C, but the requirement on filling the specifier of CP is not imposed, resulting in a VSO ordering. In this analysis, a VSO sentence might have a derivation as in (15).

15) CP
    C                        IP
    Subj                  I'
    INFL VP
    Verb Obj
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The verb raises through its inflectional complex to C° and all the other arguments stay in their canonical positions.

Carnie, Pyatt and Harley (1994) and Carnie Harley and Pyatt (forthcoming) (henceforth CPH/CHP) argue that Old Irish is a language that derives its word order this way, at least for the set of simplex VSO sentences.

A major difference between Old Irish and Modern Irish lies in the complexity of the verbal system. The morphology of the Old Irish verb includes verbal roots, inflectional endings and a series of preverbal particles. The preverbal particles are of three types: conjunct particles (C), preverbs (P) and object enclitics (E). These particles, the verb and its person/number endings form what is called the 'verbal complex'. Excluding the enclitics for the moment, there is a strict ordering to these forms. An example of a maximal verbal complex is given in (17).

We have nothing to say about the positioning of these elements, except to note that they do not participate in the series of alternations which we argue below reflect movement to C°.

### (15) Old Irish Verbal Complex

- Conjunct Particles (C)
  - negation, question marker, complementizers

- Preverbs (P)
  - Alters verb meaning, adds perfective aspect

- Verb (V)+Subject inflection (S)
  - The verb root itself and person agreement.

- Enclitics (E)
  - Object clitics and relative markers

### (16) Ní-m• secheth

| C (E) P V-S |

| neg-me• see.3S | preverb.1s-ACC follow.3SG-FUT |

A similar more elaborate view:

Following Chomsky and McCloskey (1987), CPH assume the conjunct particle position (C) corresponds to the C° position. This would explain why it must be ordered before the other preverbal particles (P). In Modern Irish, the conjunct particles form phonological units with overt complementizers (see Duffield 1991, 1995 for discussion and a slightly more elaborate view):

- goN 'that' + níL 'neg' → nachN  'neg.comp'
- goN  'that' + níorL 'neg-past' → nárL  'neg.past.comp'
- aL "that [+wh]" + níL 'neg' → nách  "neg.comp.[+wh]"

Similar facts are found in Old Irish:

- coN 'that'   + ní 'neg' → coNí  'neg comp'
- Ø 'that[+wh]'   + ní 'neg' → nád  'neg.comp.[+wh]'

CPH assume that the conjunct particles correspond to C° in the older form of the language as well.

The issue of whether negation, questionhood, and other 'conjunct particle' functions are base generated in C° is of obvious concern here. See Carnie Harley and Pyatt (forthcoming) for extensive discussion.
Given this cast of characters, CPH show how certain morphological, phonological and syntactic processes argue for having both raising of the verb to the left edge of IP and to \( C^\circ \).

In Old Irish, the verb and its inflection take two different forms depending upon whether or not it is in absolute initial position. These two forms are traditionally called ABSOLUTE and CONJUNCT (20) (examples taken from Strachan 1949):

\[
\begin{align*}
\text{Absolute} & & \text{Conjunct} \\
\text{beirid} & - \text{beir'he} & \text{carries'} \\
\text{berait} & - \text{berat'} & \text{they carry'} \\
\text{marbfa} & - \text{marbub} & \text{I will kill'} \\
\text{midimmir} & - \text{midemmar} & \text{we judge'}
\end{align*}
\]

The absolute form is used when the verbal root is in absolute first position in the clause, that is, when the inflected verb is not preceded by any conjunct particles, preverbs or pronouns (21). The conjunct form is used when the verb is preceded by a conjunct particle (complementizer) or a preverb (22).

\[
\begin{align*}
\text{ABS the man the sword} & \quad \text{CONJ *ABS the man the sword} \\
\text{(20)} & \quad \text{(21)}
\end{align*}
\]

Interestingly, the appearance of a verb in its conjunct form is not necessarily a function of the presence of a conjunct particle or preverb. Rather, the conjunct form is found anywhere that the verb is not in absolute first position. This is often called Bergin’s rule (Bergin 1938). This is especially true in some poetic forms where strict VSO order is not obligatory. Take for example the following lines from the Énna Labraid Luad Cáich as cited in Carney (1978):

\[
\begin{align*}
\text{An mbeir in fer in claideb?} & \quad \text{Beir, 'carries', in conjunct form. In this case, it seems likely that the verb is simply copied, without the associated clausal structure (see McCloskey 1991 for a discussion of the effect of raising in Modern Irish). In this case, the verb is not preceded by any conjunct particle or preverb. The answer to the question is simply the verb copied into the clause in its conjunct form, without the associated clausal structure.}
\end{align*}
\]

Function of the presence of the preverbs or conjunct particles. Rather, the conjunct form is found in absolute first position, wherever the verb is not preceded by any conjunct particle or preverb. Bergin’s rule (also extensively named “Bergin’s Law” (see for example Lehmann and Lehmann (1975)) is usually not phrased exactly this way. For example, in Thurneysen (1946:§513) it is articulated as ‘Simple and compound verbs may be placed at the end of the clause. Each has its own particle, but the sentence is subject to the condition that the verb be not preceded by any conjunct particle or preverb.’ However, Carney (1978) argues that the formulation adopted in the text above is more accurate, since verbs can appear medially in some poetic forms where strict VSO order is not obligatory. The verb in question is in absolutive case, whereas the verb in question is in absolutive case. The verb is in absolutive case. Given that case of the verb, CPH show how certain morphological and phonological processes are not necessary. According to this view, the verb is in absolutive case. However, Carney (1978) argues that the formulation adopted in the text above is more accurate, since verbs can appear medially in some poetic forms where strict VSO order is not obligatory. The verb in question is in absolutive case, whereas the verb in question is in absolutive case. The verb is in absolutive case.
In this fragment, the verb soí takes conjunct form, despite the fact that it does not appear with a conjunct particle or preverb. CPH conclude, then, that conjunct verbal inflection is a feature of non-initial position. We claim that this distribution is definable in a systematic way: when the verb has raised to C° it takes the absolute morphology. We assume that the movement to this position is caused by a filled C° requirement. When the verb is in any other position (either at the left edge of IP or in verb medial order as in the poem fragment above), it takes the more basic conjunct form.

Consider the case of (22) above, where the C° has been filled with the conjunct particle ní 'neg' thus blocking the raising of beir 'carries-3S-CONJ' to C°. The verb raises through the inflectional heads to the left edge of INFL just like it would in Modern Irish; the inflected verb is thus realized as beir.

The resultant S-structure is seen in (24).

When the inflected verb beir 'carries' raises to C°, it actually is incorporating into a null C°. This C-INFL-V complex is then realized as absolute beirid instead of conjunct beir.

An important variation to this pattern occurs in relative clauses. If the null C° is [+wh], then a third form of the verb is used in lieu of the absolute form (26). For example, in the sentence below, the inflected verb of the relative clause: gaibid 'grabs.ABS' surfaces as gaibes, the relative form of the verb.

(26) Isoinferi [CPØigaibesi [IP tibúaid]]

COP one-man OPP grabs-3S-RELvictory

'It is one man who grabs victory.'

The differences between the relative form and the matrix absolute form show that the morphology of the absolute is used to signal which null C° ([±wh]) is present in the complementizer position. Since the verb form in the relative clause is realized as beir, it indicates that the relative clause is in an absolute initial position. The fact that the verb form changes depending on the presence of a null complementizer in the complementizer position lends support to the theory that these verbs are in fact in C°.

11. See Zwart (1993) where comparable morphological alternations are seen in Dutch verb second constructions.

12. This pattern is not unattested in Modern Irish; in some dialects, special relative forms of the verb can appear in relative clauses, as in (i) below.

(i) an bhean aL gheobhas buaidh

the woman that get.FUT.REL victory

"The woman who will conquer"

Again, this observation that there must be some relationship established between C° and the verb in Modern Irish is perfectly valid. However, the crucial difference between Old and Modern Irish is that in Modern Irish, the verb is always moved to the complementizer position, whereas in Old Irish, the verb is left in its infinitive form. This movement to the complementizer position is caused by a filled C° requirement. We assume that the verb in this position is caused by a filled C° requirement. When the verb is in any non-initial position, we claim that this distribution is caused by a semantic relation of noun-noun agreement. We assume that this agreement is a semantic relation of noun-noun agreement. We claim that this distribution is caused by a semantic relation of noun-noun agreement.
CPH also consider alternations in the forms of preverbs, and show how they lend support to the analysis that in absolute clauses, the verb is in C°. The preverbs are the prepositional components of Old Irish compound verbs. For example, given the basic verb beirid ‘carries’, the addition of a preverbal particle shifts the meaning in unpredictable ways:

\[ \text{as•beir} \] means ‘says’ (literally ‘out-carry’). Similar forms, such as shine/outshine and blow/blow up, are occasionally found in English and prepositional preverbs and separable prefixes are found frequently in many other Germanic and Slavic languages.

Certain preverbs may also cause a shift in aspect, giving perfective force\(^{13}\). In Old Irish, the use of these particles is quite common, and helps to form a large class of Old Irish verbal morphology. CPH claim that depending upon what other elements appear in the complex, these preverbal particles can behave as if they were either in C° or as if they were combined with the verb in INFL. In particular, CPH propose that given a compound verb with no conjunct particle, a preverbal particle satisfies the filled C° requirement.

Consider the following compound verb:

\[ \text{as•beir} \]

as the subject of a sentence, this means ‘I say this.’ However, when this verb comes after a Conjunct particle like \( \text{ní} \) (28), the form changes to \( \text{epur} \) when it follows a conjunct particle like \( \text{ní} \) (28).

Despite the obvious differences between these forms, there is no suppletion here. Instead, rules of stress shift, syncope, proization, reduplication and lenition all interact to muddy the forms (see McCloskey 1978 and McCone 1987, 1994 for more detailed discussion of the actual phonological forms). The domain of application of these phonological rules provides evidence for our analysis. The entire verbal complex forms a single phonological unit that cannot be broken apart by adverbs and other intrusive material. Following the phrasal phonology frameworks of Selkirk (1984), Hayes (1989), and Nespor and Vogel (1986), CPH call this grouping the ‘clitic group’ - (\( \kappa \)). However, there is a smaller phonological unit, the word (\( \omega \)), which is the domain of stress and syncope. Consistently, conjunct particles (C) and enclitic pronouns stand outside the phonological word (\( \omega \)). Preverbal particles (P), on the other hand, vary in their position, depending upon what other material is present in the clitic group (\( \kappa \)).

\[ \kappa \ P \ [\omega \ (P) (P) (V)] \]

14Except in the highly marked tmetic construction found in poetic works.

15We use \( \kappa \) here instead of the more common C, in order to distinguish clitic groups from Complementizers and Conjunct particles.
For concreteness let us consider the example of stress. Stress in Old Irish is always
on the leftmost syllable in the word. This is true of absolute verbs, nouns, and adjectives.
When the verb is complex however, either with a conjunct particle or with a preverb, the
stress falls on the second non-enclitic morphological unit, indicated here in boldface:

\[
\begin{align*}
\text{(30)} \quad a. & \quad C \cdot \ 'P \\
& \quad (P) (P) \ V \\
\text{b.} & \quad C \cdot \ 'V \\
\text{c.} & \quad P \cdot \ 'P \\
\text{d.} & \quad P \cdot \ 'V
\end{align*}
\]

There thus is a special 'pre-tonic' slot in initial position for a preverb or conjunct particle,
which does not participate in the metrical structure of the rest of the verbal complex. We
will indicate the division between the pre-tonic position and the rest of the complex with the
symbol \(<\cdot>\) (following Thurneysen 1946). Prosodically, this pretonic position
 corresponds to a form which is outside the domain of \(\omega\), but is still within the domain of
the clitic group (\(\kappa\)). Usually, the enclitic and any syllabic material it brings with it will be
part of the pre-tonic. We can thus describe the distribution of the elements as follows:

\[
\begin{align*}
\text{(31)} \quad i. & \quad \text{Conjunct particles are always pretonic} \\
ii. & \quad \text{If there is no conjunct particle, then the first preverb is pretonic}
\end{align*}
\]

If we add a conjunct particle to a verb with preverbs, then the previously pretonic preverb
joins the rest of the verbal complex and participates in its metrical structure, causing the
stress pattern to change, as seen in \(\text{(32)}\) below.

\[
\begin{align*}
\text{(32)} \quad a. & \quad \text{as•b} \text{ur} 'say-1s' /as. \text{bjur} / (\text{stress on the second syllable}) \\
& \quad \text{b.} & \quad \text{•e} \text{pur} 'say-1s' /e. \text{bur}/ (\text{stress on the first syllable})
\end{align*}
\]

The boldface syllable is the one that receives the stress. In \(\text{(30a)}\) the preverb \(\text{as}\) appears in
pretonic position and does not participate in the metrical structure of the verb (stress falls on
the pre-tonic position and does not participate in the metrical structure of the verb (stress falls on
the second syllable). When the conjunct particle is added, the preverb behaves as if it is part of
the second element in the complex, and takes main stress. The other phonological alternations (/a/~/e/
and /sb/~/b/ (orthographic <p>)) follow from this shift in metrical structure.

Supporting evidence for this approach to preverbs again comes from their behavior
in relative clauses. Recall that absolute verb forms in relative clauses varied in form
depending upon the \([\pm\text{wh}]\) content of the complementizer head, lending support to the
notion that these forms represented incorporation of the verb to C°. The pretonic preverb
\(\text{im(m)}\) 'about', as in the sentence

\[
\text{imm•rádi} \quad \text{he thinks/meditates' (literally 'about-speak')} \quad \text{in the example in \(\text{(33a)}\) below, then in a relative clause the suffixed form imma or imme appears}
\]

\[
\text{(33)} \quad \text{A • d} \quad \text{d.} \quad \text{c.} \quad \text{b.} \quad \text{A \ (d) (d) • d} \quad \text{A \ (d) (d) \ (d) • c}
\]

\[
\text{(30)} \quad \text{a.} \quad \text{b.} \quad \text{c.}
\]

\[
\text{(30)} \quad \text{a.} \quad \text{b.} \quad \text{c.}
\]
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(33b), as noted by Greene (1977:24). Let us emphasize again that this form, with a pretonic preverb, only appears if there is no complementizer particle occupying the preverbal slot. (33) a. imrádi about•speak. `he thinks/mediates`
b. imma•rádi about.REL•speak.CONJ. `who thinks/mediates' (Thurneysen 1946:§841)

This provides further evidence that the pretonic slot is in fact the realization of the complementizer head, as the relative marking appears on the preverb, precisely what is predicted by the idea that these elements are in C°.

The final piece of evidence CPH present in favor of our account comes from Object Enclitics. The somewhat convoluted facts of enclitic placement do not lend themselves obviously to a phonological analysis, while on the approach adduced here, a straightforward syntactic account is possible.

Old Irish has second position enclitics (E) which include object pronouns, relative pronouns, and conjunctions. Following the tradition in Celtic grammars we will call these Wackernagelian clitics.

19. The enclitic pronouns20 are always found after the first morphological element in the verbal complex (34). The following examples are taken from Strachan (1949):

(34) a. Ní-m• accai  (Ní + m + ad + cí-3s)

'she does not see me'
b. at-on•cí (ad + (do)n + cí-3s)

'she sees us'
c. bertaig-th-i21   (bertaig -th +i)

'she shakes him'

The distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed; sometimes they precede the verb (when there is a preverb or conjunct particle); other times they follow the verb (when the verb is absolute). Similarly, there is no easy phonological characterization of their placement. Sometimes they precede the first phonological word, i.e. when there is a pretonic slot in the phonological phrase. When the verb is absolute, however, there is no phonological slot in the phonological phrase, so there is no enclitic placement. Sometimes they precede the verb (when there is a pretonic slot), sometimes they follow the verb (when there is no pretonic slot). Thus the distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed.

21This form is later replaced by no-s•mbertaigedar, with the 'do-support'-like null preverb no. However, the absolutive form continues to be used when there is no object pronoun. We will be concerned mainly with the period when object clitics adjoined after the main verb; it seems likely that the shift to insertion of a "dummy" preverb heralded the beginning of the shift to the Modern Irish system, in which the verb does not raise beyond expanded INFL.

and in order to emphasize it, we present here a few further examples that illustrate the principles that govern the placement of enclitics.

The distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed. Sometimes they precede the verb (when there is a pretonic slot), sometimes they follow the verb (when there is no pretonic slot). Thus the distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed.

The following examples are taken from Carnie and Harley.

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(34) a. Ní-m• accai  (Ní + m + ad + cí-3s)

'she does not see me'
b. at-on•cí (ad + (do)n + cí-3s)

'she sees us'
c. bertaig-th-i21   (bertaig -th +i)

'she shakes him'

The distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed; sometimes they precede the verb (when there is a preverb or conjunct particle); other times they follow the verb (when the verb is absolute). Similarly, there is no easy phonological characterization of their placement. Sometimes they precede the first phonological word, i.e. when there is a pretonic slot in the phonological phrase. When the verb is absolute, however, there is no phonological slot in the phonological phrase, so there is no enclitic placement. Sometimes they precede the verb (when there is a pretonic slot), sometimes they follow the verb (when there is no pretonic slot). Thus the distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed.

21This form is later replaced by no-s•mbertaigedar, with the 'do-support'-like null preverb no. However, the absolutive form continues to be used when there is no object pronoun. We will be concerned mainly with the period when object clitics adjoined after the main verb; it seems likely that the shift to insertion of a "dummy" preverb heralded the beginning of the shift to the Modern Irish system, in which the verb does not raise beyond expanded INFL.

and in order to emphasize it, we present here a few further examples that illustrate the principles that govern the placement of enclitics.

The distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed. Sometimes they precede the verb (when there is a pretonic slot), sometimes they follow the verb (when the verb is absolute). Similarly, there is no easy phonological characterization of their placement. Sometimes they precede the first phonological word, i.e. when there is a pretonic slot in the phonological phrase. When the verb is absolute, however, there is no phonological slot in the phonological phrase, so there is no enclitic placement. Sometimes they precede the verb (when there is a pretonic slot), sometimes they follow the verb (when there is no pretonic slot). Thus the distribution of enclitics is somewhat puzzling from a syntactic perspective if no filled C° requirement is assumed.

The following examples are taken from Carnie and Harley.

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(33) a. imrádi about•speak. `he thinks/mediates`
b. imma•rádi about.REL•speak.CONJ. `who thinks/mediates' (Thurneysen 1946:§841)

This provides further evidence that the pretonic slot is in fact the realization of the complementizer head, as the relative marking appears on the preverb, precisely what is predicted by the idea that these elements are in C°.

The final piece of evidence CPH present in favor of our account comes from Object Enclitics. The somewhat convoluted facts of enclitic placement do not lend themselves obviously to a phonological analysis, while on the approach adduced here, a straightforward syntactic account is possible.

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21This form is later replaced by no-s•mbertaigedar, with the 'do-support'-like null preverb no. However, the absolutive form continues to be used when there is no object pronoun. We will be concerned mainly with the period when object clitics adjoined after the main verb; it seems likely that the shift to insertion of a "dummy" preverb heralded the beginning of the shift to the Modern Irish system, in which the verb does not raise beyond expanded INFL.
Thus a Wackernagel-style analysis of this cliticization under which these enclitics attach after the first prosodic unit is prima facie untenable. Note that an account of enclisis according to which the enclitic attaches either to the first phonological word or to the first prosodic unit (the clitic group $κ$) would predict that the enclitic would suffix itself to the entire verbal complex rather than appearing medially. However, the enclitic only follows the first phonological word if there is no pretonic element; when there is a pretonic element the enclitic precedes the first phonological word. While a phonological account would have to include a two-part rule to this effect; the syntactic account argued for here requires no such disjunctive rule. The distribution of enclitics is transparent when we assume that Old Irish had a filled C° requirement. Once we make this claim, the distribution of enclitic pronouns is straightforward: (36) Enclitics (E) adjoin to C°.

It is possible an account could be proposed according to which the enclitic looked for the first phonological word ($ω$) and affixed itself to the left (rather than the right). Such an approach would run into problems in the instances where no pre-tonic units appear in the verbal complex, (i.e., the absolutive verb forms). In these cases the enclitic adjoins to the right of the first phonological word giving V-E order. Also, such an approach seems unnecessarily unusual; accounts of Wackernagelian cliticization tend to use suffixation to the first prosodic unit. Arguing for prefixation in the middle of the first prosodic unit seems particularly abstruse given that a clear syntactic constituent is available to the analysis. See Eska (1996) for a diachronic perspective on the issue.

An equally empirically adequate account, consistent with the analysis of verb movement to C° proposed here, is found in Duffield (1994). He proposes that there is an extra position between the highest Inflectional position and the C°. This is the Wackernagelian 'head' C° position. He proposes that there is an 'empty' C° position in such a way as to provide the necessary cliticization of Wackernagelian clitics in Old Irish.

This is true whether the C is filled by a conjunct particle, a preverb or an absolute verb form. CPH provide extensive evidence in favor of the idea that certain verbs (those with absolute flexion) are in C° in Old Irish. There are a number of questions raised by the approach presented in CPH which we will not consider here. In particular the issues of the motivation for the movement to C° and the issue of how the movement occurs without violating the head-movement constraint are of particular importance. We refer you to the original work for discussion.

Let us now consider whether there is any evidence that verbs in Modern Irish also appear in C°. A well-known fact about Modern Irish is that the conjunct/absolute distinction has some remaining reflexes in some irregular verbs. When these irregular verbs appear in clauses with certain classificatory particles, a conjunct (or dependent) form of the verb is selected. However, some constructions indicate that the confluency of cliticization is not in C°. A well-known fact about Modern Irish is that the cliticization is cliticization is to the right of the C.

2.3.2 Modern Irish: Raising to C° or I°?

Let us now consider whether there is any evidence that verbs in Modern Irish also appear in C°. A well-known fact about Modern Irish is that the conjunct/absolute distinction has some remaining reflexes in some irregular verbs. When these irregular verbs appear in clauses with certain classificatory particles, a conjunct (or dependent) form of the verb is selected. However, some constructions indicate that the confluency of cliticization is not in C°. A well-known fact about Modern Irish is that the cliticization is to the right of the C.

If it is possible an account could be proposed according to which the verb is located in the

prominent word in a position left of C°? This is what a Wackernagel-style analysis of cliticization under which these enclitics attach after the first prosodic unit is prima facie untenable.
between the Old Irish and Modern Irish systems. Notice that the absolute/conjunct alternation is found in every simplex verb in Old Irish. In Modern Irish, the independent/dependent alternation is found in only six irregular (and highly suppletive) verbs. These verbs show further irregularities in taking the present tense complementizer particles in the past tense. This alternation is clearly of a different and more limited form than the syntactic Old Irish situation, one which is probably lexical and paradigmatic rather than syntactic.

We claim, as is standard in the literature on Modern Irish (see for example Duffield 1995), that the appearance of the conjunct/dependent form with the particle in this small class of irregular Modern Irish verbs is due to a selectional relation between C° and INFL. When there is a C° of the dependent selecting type, then the dependent form is selected for those verbs which have one. Note that this approach is not tenable for the more regular alternation in Old Irish. CPH note that the conjunct form is found without any complementizer at all (in Bergin's rule sentences). It would seem unusual to claim that a particular relation holds between a null C° and a non-initial verb (resulting in conjunct flexion), but that in an otherwise completely equivalent verb-initial sentence, the same relation does not hold of the null C° and verb, thus resulting in absolute inflection. As seen above, not only is conjunct inflection found with conjunct particles, it is also found when the verb is compounded with a pretonic prepositional preverb, and there is no overt complementizer particle present. If a selectional restriction between the C° and the verb is the trigger for the conjunct inflection, it is surprising that it should also be triggered by these pretonic prepositional preverbs. In modern Irish, there are no separable prepositional preverbs, so that a selectional account of the dependent/independent alternation is available. Thus, the similarities between Old Irish and Modern Irish seem rather to be of an accidental and historical nature and do not provide evidence for a raising to C° approach for Modern Irish.

McCloskey (1996a) has argued that raising to C° is unavailable for deriving basic VSO order in Modern Irish. First off, as first noted in Koopman and Sportiche (1991) and discussed in Bobaljik and Carnie (1996), there is the question of word order in embedded clauses with complementizers. Recall that in German, when a clause is embedded, the complementizer position is filled, and V2 order does not arise. If Irish admitted of a comparable analysis then we would expect the order C°-SOV or C°-SVO in embedded clauses. This prediction is immediately falsified by the facts of Irish. In fact we only get C°-VSO order. The verb still must raise:

\[
\text{Sílim gur chonaic Seán an platapas} \quad \text{("I think that John saw the platypus")}
\]

The motivation for this verb-first ordering cannot be an obligatorily filled C° requirement; since there is a filled complementizer, the verb should not have to raise if it should be moved. The motivation for the verb-first ordering cannot be an obligatorily filled C° requirement.

It should be noted that these facts hold true of Old Irish as well. A recursive CP structure like that posited for many "embedded V2 languages" like Yiddish (see Iatridou and Kroch (1992) for discussion) could also account for this order. In Irish, CP would be merged only if the complementizer is present, and the verb can be moved to a higher position if the complementizer is null. McCoey (1996) has argued that raising to a higher position in Old Irish is motivated by the presence of a pro-drop complementizer, which is absent in Modern Irish.

We claim here that the ordering is the result of a pro-drop complementizer, which is absent in Modern Irish and is present in Old Irish. This ordering is clearly of a different and more limited form than the syntactic Old Irish situation, one which is probably lexical and paradigmatic rather than syntactic.

When the complementizer is absent, the order is SVO in Old Irish, and SOV in Modern Irish.

\[
\text{Say that the man carries the sword} \quad \text{("They say that the man carries the sword")}
\]

This structure is not found in Old Irish; it was constructed by us to simplify some of the irrelevant problems (e.g. pro-drop) found in many textual examples with embedded clauses.

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So this does not serve as definitive evidence against the idea that some verbs (the Modern Irish equivalents of the absolute forms) are not in $C^\circ$.

McCloskey (1996a) presents a more complicated argument from the behavior of adverbs showing that the verb is no higher than the left edge of IP in Modern Irish. In English, there is a set of adverbs and adverbial clauses which appear to the right of complementizers but to the left of subjects (data from McCloskey 1996a):

40)

a. That in general he understands what is going on seems fairly clear.

b. It's surprising that most of the time he understands what is going on.

These adverbial elements can never appear with embedded scope to the left of the complementizer in English (the following sentence is to be read with the adverb having scope only over the embedded clause, as in the sentence in (40)):

41) *It's surprising in general that he understands what is going on.

McCloskey (1996a) argues that the pattern seen above follows from the Adjunction Prohibition of Chomsky (1986):

42)

Adjunction Prohibition

(Chomsky 1986)

Adjunction to a phrase selected by a lexical head is ungrammatical. Under this principle, adverbials are allowed to adjoin to IPs that are complements to $C^\circ$, a functional head. However, they are forbidden to adjoin to CPs that are selected by a verbal head, a lexical category. In this sense, then, the adverbials shown above in (40) and (41) can be called IP-adjoined adverbs. In contrast, in matrix clauses, where there is no lexical selection of CPs, these same adverbials can appear to the left of both complementizers and subjects in both matrix and embedded CPs (data again from McCloskey 1996a): 44)     Adverb          C       V   S

Líonaim d'éagla dá dtógfainn mo radharc dóibh go dtí fainn.  
Fill.1s of fear if lift.1s.cond my sight that fall.1s  
"I fill up with fear that, were I to take my eyes off, then I would fall."

Thus Irish shows the converse pattern to English as schematized in (45):

45)   English Irish

...Adv that [IP ...* (embedded) ok

...that Adv [IP ...ok * (always)

At first glance, it might appear that Irish lacks the Adjunction Prohibition. However, under closer examination it becomes apparent that this is not the case. Irish does have restriction on adjunction to CPs. Consider the following example (data from McCloskey):

46)   Irish

Ich fársaidh é a bhreith, nuair a b'fheidfear é  
'Ha faired I, when you are able"
They never found out who was stealing their turf that year.

McCloskey suggests that the solution to this paradox is that the adverbs in (43) are IP adjoined, despite the fact they appear to the left of the complementizer. He claims that the C° in Modern Irish lowers to attach to the verb because it requires support as a clitic, as illustrated in (47).

\[
\text{IP} \rightarrow \text{Adv} \rightarrow \text{I+V} \\
\]

This kind of analysis is supported by two kinds of evidence. First, the lowering analysis of complementizer clitics in Irish predicts that the adverb will appear between the complementizer and any element in the specifier of CP. This is shown in (48):

a) Cé riamh a chuala í

"Who ever heard her"

b) Céí t

C \[IP riamh \[IP aC + Chuala ti í]\]

McCloskey then claims that these fronted NPs, like IP adverbs, appear to the left of complementizers, but more interestingly, they appear to the right of IP adjoined adverbs (50).

McCloskey argues that if the complementizer is lowering for phonological reasons (at PF), to adjoin to the verb, then its LF position should license negative polarity items which have IP adjoined via narrative fronting. This prediction is borne out:

51) [Pingin rua char caith mé ar an bhád

"Not a red cent did I spend on the boat" (lit "Red Cent, did I not spend on the boat.") (McCloskey 1996a)
In this sentence, the negative polarity item 'red cent' is licensed by the negative complementizer char, which follows it. The fact that the lowering is a PF phenomenon, accounts for why the polarity item is licensed. The LF position of the negative complementizer c-commands the IP adjoined position of the negative polarity item.

Given these assumptions about complementizer lowering, where does this leave us with VSO? Since the verb is to the right of the adverbs, and these adverbs mark the left edge of VP, then it follows that the verb must be in the lowest functional category, and cannot be in C. Modern Irish does not have raising to C°.

2.3.3 Where in IP is the verb?

Given that the verb in Modern Irish is not in C°, as argued above, we must now ask where in the functional structure it appears. Duffield (1995) argues extensively that it is actually quite low in the functional structure. In particular, he argues that the functional structure of the clause looks like that in (32):

\[
\text{TP} 
\text{T'} 
\text{T} 
\text{NegP} 
\text{AgrS'} 
\text{AgrS} 
\text{VP} 
\text{V'} 
\text{t} 
\text{Obj} 
\text{Subj} 
\text{Neg'} 
\text{Neg} 
\text{AgrS'} 
\text{AgrS} 
\text{VP} 
\text{C} 
\]

This is not in fact exactly the tree Duffield argues for. He has an additional functional projection above TP to host second position clitics and declarative topics. But this also has some serious problems with the assumption underlying Duffield's basic argumentation for placing the verb in this position.

In some ways this structure is similar to the one we will be arguing for in Chapter 3, in particular the ordering of TP and AgrS are particularly similar. We, however, do not agree with Duffield's arguments for this structure, and, in particular, we believe the verb is in the highest functional category, rather than the lowest. First of all, let us note that in the subsequent chapter we will argue that subjects in Modern Irish are VP-external. There is extensive evidence from adverbial placement and case properties that they have moved extramurally from adverbial position and case properties. The LF position of the negative complementizer c-commands the IP adjoined position of the negative polarity item.

Functional structure of the clause looks like that in (32):
heads higher than the verb. He argues that since a kind of tense-conditioned morphology (\text{doL}, \text{d'L}, \text{-rL,L}) appears in the particle higher than the verb, the verb cannot be as high as T. Similarly, since negation appears in a particle preceding the verb, the verb is not as high as negation (all data from Duffield 1995):

\(\text{a) \ D'L'ith \ sé \ an \ bia}\)

\(\text{Pst eat he the food} \) "He ate the food"

\(\text{b) \ (DoL) \ chuir \ siad \ ar \ an \ bhórd \ é}\)

\(\text{Pst put them on the table it} \) "They put it on the table"

\(\text{c) Ní\-r \ mhol \ sé \ na \ mic \ léinn.}\)

\(\text{Neg-Pst praise he the sons learning-gen} \) "he praised the students"

If the tree in (52) is correct, and tense and negation do occur in these particles to the left of (and presumably higher than) the verbal head, it thus follows that the verb is in a lower head than T° and Neg°. There are ... First of all, it is not at all clear that the morphemes Duffield is analyzing as T° are in fact tense, and not some more clause-peripheral (and perhaps complementizer like) functional category like Mood. As argued extensively in Carnie (1997) and Doherty (1997), the analysis of these morphemes as T° seems to be quite misguided. As noted by Duffield himself, verbs in Irish show a full range of tense inflectional suffixes (see Christian Bros. 1990 for a full list):

\(\text{a) Ní \ chuir-eann \ sí \ ar \ an \ mbórd \ é}\)

\(\text{Neg put-present she on the table it} \) "She didn't put it on the table"

\(\text{b) Cuir-fidh \ mé \ ar \ an \ mbórd \ é}\)

\(\text{put-future I on the table it} \) "I will put it on the table"

This is problematic for the view that the verb is not in T°. Duffield claims that these verbal markers do not show tense but rather mood and aspect. To us this claim seems very strange. These morphemes show a full range of tense forms ranging from past (\text{-amar}, \text{Ø}, etc.) to present (\text{-eann}, etc.) to future (\text{-faidh}, etc.). The preverbal particles, by contrast, only vary on a past/non-past axis. It seems backwards to claim that the full range of tense inflection is not T°, but the more limited set instantiates the node. Ó Sé (1990) analyzes the temporal morphology in Irish preverbal particles, and the equivalent particles in copular clauses, as representing realis/irrealis mood.

Duffield presents one piece of evidence in favor of his claim. He notes that in infinitival clauses, the shifted position of subjects (which he takes to be the specifier of TP) below NegP doesn't mean that the verb is in a lower head than NegP. Instead, Duffield seems to assume that the only possible position for NegP is below TP. This can be seen to arise in complex clauses in which the adverbial...

\(\text{\[TP \ Subjecti \ [NEGP gan . . . [VP ti \] ]\]}\)

\(\text{\[... Máire gan an fear sin a phósadh \]... Mary not the man that prt marry}\)
Given this empirical evidence, the basic support for the idea that negation is low in Irish evaporates. The basic fact that negation appears quite high in the clause, usually adjoined to a complementizer, lends support to the \( \Sigma P \) analysis. To summarize the discussion so far, we have shown that Duffield’s evidence does not necessarily point to an analysis where the verb occupies a low position in the functional hierarchy. In fact, we have shown that it is equally consistent with an analysis of a more refined CP structure, where negation (in the form of \( \Sigma P \)) and Mood are found in the A-bar complex, giving a structure like (56):

\[
\text{(56) \[CP \ C \[\sigma P \text{Neg} \[\text{MOODP Mood} \[\text{TP T+V} \[...\]
\]
\]
\]
\]
\]

We will not attempt further discussion of this refined or expanded CP here, as it lies well outside of the scope of this work. However, it is worth reiterating that our structure seems to be more compatible with Duffield’s analysis than the one that places the verb to the left of the subject, since it allows the verb to occupy the highest inflectional head in the IP complex.

2.4 SUMMARY AND CONCLUSION

In this chapter, we have discussed the positioning of the verb in VSO clauses in Irish. The verb is clearly in a derived position, higher than the surface position of the subject. We’ve shown, following McCloskey, that the verb in Modern Irish, unlike in older forms of the language, does not occupy \( C^0 \) and is therefore appearing somewhere in the inflectional complex. We then went on to argue that the basic data is most compatible with an analysis placing the verb at the left edge of the inflectional complex. In chapter 4, we will claim that the subject occupies the second highest specifier in the inflectional complex. Since the verb is to the left of the subject and is not in \( C \), it follows that it is in the highest inflectional head in the IP complex.

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Chapter 2

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3.0 INTRODUCTION

In chapter 2, we discussed the position of the verb in VSO sentences. Now we turn to the positioning of the other major non-subject constituents in the Irish clausal structure.

3.1 THE PROBLEM OF DETERMINING THE POSITION OF OBJECTS.

Our first task is to determine the base and surface position of the object in non-verb initial sentences, where the object (both on the surface and underlyingly) is to the right of the base V position. It is thus often easy to determine both positions in English, for example, the object is to the right of the verb, whereas in Irish, this initial knowledge is not. The object is to the right of the verb. Our first task is to determine the base and surface position of the object in non-verb initial sentences.

In this chapter, we will begin by discussing the problem of determining the position of the object.

In English, the object is to the right of the base V position, whereas in Irish, the object is to the left of the base V position. In Irish, the object is to the right of the verb.

In this chapter, we will focus on the positioning of the object.

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Chapter 3

3. The Base Position of Objects in Modern Irish

3.2 The Base Position of Objects in Modern Irish

The assumption will be discussed in great detail below and in Chapters 4 and 5. We are assuming here of course that the array of Irish is restricted high in the sentence. This is a contrasting view with Koizumi (1994), Harley and Noyer (1997), and Croll and Terken (1999).

We have already stated that our own hypothesis is that Irish is always non-underlying object. The two possible object positions are thus the subject position and the object position. This prediction is thus made in great detail below and in Chapters 4 and 5.

We are assuming here of course that the object is restricted high in the sentence. This is a contrasting view with Koizumi (1994), Harley and Noyer (1997), and Croll and Terken (1999). We have already stated that our own hypothesis is that Irish is always non-underlying object. The two possible object positions are thus the subject position and the object position. This prediction is thus made in great detail below and in Chapters 4 and 5.
As discussed in Aronoff (1981) and O'Grady (1989) in standard Irish (An Caighdeán), we find (S)OV order:

4) \[ \text{Ba mhaith liom [an teach a thógáil]} \]

'C good with.1s the house.ACC PRT build

'I would like to build the house.'

One obvious analysis of these facts is to claim that Irish is underlyingly SOV (as suggested in Collberg (1990)). There are several problems with such an approach, however. First, it has been noted (Duffield 1991) that Irish is generally a head-initial language. It has prepositions rather than postpositions, determiners precede their nouns, complementizers precede their clauses, and nouns precede all their modifiers.

This is seen in (5):

5) a) in Derry
   b) the woman
   c) the big woman
   d) Ceapaim [go bhfuil sé ansin]

'Think.1.s that be.pres he there'  "I think that he is there"

If we were to pursue an underlying OV analysis of Irish, we would have to abandon the assumption that a given language's headedness is internally consistent. We would have to claim that all phrases in Irish, except the VP, were head-initial, but that the VP was head-final.

This is clearly an undesirable result. Similarly, it's generally the case in true head-final languages (such as Japanese) that oblique arguments and adjuncts precede the head.

Irish, however, obliques, quasi-arguments like measure phrases (Duffield 1995), and adjuncts follow the verb giving (S)OVX order (6):

6) a) \[ \text{Ba mhaith liom [Seán an teach a thógáil le casúr]} \]

'C good with.1.s John the house PRT build with hammer

'I want John to build the house with a hammer.'

b) DATA From Duffer about quasi Arguments

Finally, given an SOV analysis of Irish we would never expect to find post-verbal objects. This too is an incorrect prediction. In progressives, a post-verbal object is the only acceptable form:

7) a) Tá mé ag scríobh an abairt anois (colloquial)
   b) Tá mé ag scríobh na habairte anois (formal)

'Be.pres I prog write the sentence.acc now'  'Be.pres I prog write the sentence.gen now'

Similarly, in the Munster dialect (as is discussed extensively below) if an overt subject is present in an infinitive clause, then objects appear post-verbally:

8) \[ \text{Ba mhaith liom [CP Seán aL scríobh na habairte]} \]

'C good with.1.s John ACC PRT write the sentence.GEN

'I want John to write the sentence'

Consider now the distribution of case in the examples in (7) and (8). Note that although both genitive and accusative cases are allowed postverbally (depending upon the register) in both progressives across dialects and in Munster infinitives, only the accusative is allowed in preverbal position (the gray portion of 9b):

9) a) \[ \text{Ba mhaith liom [an teach a thógáil]} \]
   b) \[ \text{Ba mhaith liom [CP Seán aL scríobh na habairte]} \]

'C good with.1s the house.ACC PRT build

'I would like to build the house.'

The exception to this is in modal constructions which precede direct nouns: e.g., (9a) for

10) \[ \text{Ba mhaith liom [an teach a thógáil]} \]

'C good with.1s the house.ACC PRT build

'I would like to build the house.'
This suggests that the preverbal position is the position of structural case assignment, and that the post-verbal position is the base-generated position of objects. All of the above evidence points towards an analysis where objects are base-generated to the right of the verb, and the underlying word order of Irish, as of English, is SVO.

If we assume an underlying SVO order, as argued for in section 3.2, and Irish infinitivals exhibit SOV order in infinitivals, it follows straightforwardly that Irish is a language with leftwards object shift. In this section we consider the nature and location of this shift. The argument here is drawn from cross dialectal syntax with different word orders emerging in two dialects of Irish. These facts were first laid out in McCloskey (1980), and discussed in more detail in McCloskey and Sells (1988). In all dialects of Irish, non-finite verbs occur in a special form (also found with periphrastic tenses) called the verbal noun (VN). We first consider a word alternation in the southern (literary) dialect of Irish.

We refer the reader to Ó Siadhail (1989) for a more extensive discussion of the dialect splits in Modern Irish. The isoglossic split that we will be discussing divides Ulster Irish and Connacht Irish from the Munster dialects. We will, following general practice in the syntactic literature on this subject, refer to the Ulster and Connacht dialects as the "Northern dialects" and the Munster dialects as the "Southern" ones. The reader should note, however, that in practice there are three distinct dialect splits for other syntactic and phonological features (e.g. the double subject construction discussed in McCloskey and Sells (1988) and Ó Baoill (1994) is strictly limited to the Ulster dialect and is never found in Connacht or Munster.

Modern Irish is, unfortunately, an endangered language. Current estimates suggest that there are about 30,000 speakers use it as their everyday language, and these estimates may well be overly optimistic (Hindley 1992). Gaeltachtaí (the official Irish speaking areas) are limited to isolated pockets on the west coast of the island. They are geographically, and to a certain extent culturally, isolated from one another. This means that the dialects of Irish are sometimes quite disparate in their grammars. There are three main dialect areas: the "Munster dialect", centered now mostly in the Corca Dhuine peninsula in Co. Kerry; the "Connacht dialect", found in Conamara in Co. Galway; and finally the "Ulster dialect" found on the northwest coast centered around the town of Derry. Other Irish speaking areas exist, but they tend to be dialectally speaking isolated from the above.

We refer the reader to Ó Siadhail (1989) for a more extensive discussion of the dialect splits in Modern Irish. The isoglossic split that we will be discussing divides Ulster Irish and Connacht Irish from the Munster dialects. We will, following general practice in the syntactic literature on this subject, refer to the Ulster and Connacht dialects as the "Northern dialects" and the Munster dialects as the "Southern" ones. The reader should note, however, that in practice there are three distinct dialect splits for other syntactic and phonological features (e.g. the double subject construction discussed in McCloskey and Sells (1988) and Ó Baoill (1994) is strictly limited to the Ulster dialect and is never found in Connacht or Munster.)
'I want to wait It also allows overt subjects (11) (under some interesting circumstances which we will discuss in detail below). When this happens, the particle \textit{aL} appears before the verb. This particle will become an important part of our discussion. We will show that this particle emerges precisely in spec-head case relationships and we will associate it with various Agr heads. In the southern dialect, this head appears with both embedded subjects and objects\textsuperscript{8}. In (12), we have a sentence where the \textit{aL} particle is triggered by the presence of an overt object.

\begin{itemize}
\item \textbf{11)} Ba mhaith liom \[CP Seán \textit{aL} fhanacht\] S
\item \textit{aL} V (south)
\item C   good with.1.S      John.ACC  PRT wait
\item \textbf{12)} Ba mhaith liom \[ PROi an abairt \textit{aL} scríobh\] PRO O
\item \textit{aL} V
\item C  good with.1.S          the sentence.ACC   PRT write (south)
\item 'I want to write the sentence'
\end{itemize}

Now, consider the situation where there is both an overt subject and an overt object. In these cases, a marked order emerges: the subject precedes the particle \textit{aL}, and the object is postverbal, usually with genitive case\textsuperscript{9} (13). This option\textsuperscript{11} is only available when there is an overt subject, otherwise OV order must be used.

\begin{itemize}
\item \textbf{8} In the northern dialect the situation is significantly different as we will make clear below
\item \textbf{9} We leave aside here the question of why a subject is found near this accusative particle, and will address the issue in chapter 4.
\item \textbf{10}See Duffield (1991) for more discussion of case marking in this dialect.
\item \textbf{11}McCloskey (p.c.) tells us that in fact this option is so marked that it may well be difficult to find speakers who actually use it. It is clear however that this order is part of the literary standard.
\item \textbf{12)} Ba mhaith liom \[CP Seán \textit{aL} scríobh na habairte\] S
\item \textit{aL} VO-gen
\item C   good with.1.S      John.ACC    PRT write    the sentence.GEN(south)
\item 'I want John to write the sentence'
\end{itemize}

For the moment, we leave aside the issue of what forces this order, returning to this question below. What is important to note at this juncture about example (13) is that the postverbal object is marked with an inherent genitive case. By contrast, note that in sentence (12), the object is marked with structural accusative. As we observed in section 3.2, this seems to argue that objects are underlyingly post-verbal in Irish, and shift leftwards to get accusative case when necessary. We will return to this observation of the nature of the \textit{aL} particle.

We adopt the position presented first in Duffield (1991) (contra McCloskey and Sells 1988, Guilfoyle 1993, Ramchand 1993, and Duffield 1995), and articulated most fully in Bobaljik and Carnie (1996) that the \textit{aL} particle is an Agr head and is itself the accusative case assigner. In particular, we claim that it is the Spell-Out of the AgrO head. This claim is supported by the fact that the presence of this particle is tightly linked to the appearance of accusative case. Consider the facts from Northern Irish. This dialect does not allow the SVO order seen in (13) above.

\begin{itemize}
\item \textbf{13)} Ba mhaith liom \[CP Seán \textit{aL} scríobh na habairte\]*SVO(north)
\item \textit{aL} V (north)
\item C   good with.1.S      John.ACC    PRT     write    the sentence.GEN
\item 'I want John to write the sentence'
\end{itemize}

Instead it always requires an SOV order (15). The \textit{aL} morpheme, however, only appears when an overt object is present (16).

\begin{itemize}
\item \textbf{15)} Ba mhaith liom \[CP Seán \textit{aL} scríobh\] SO
\item \textit{aL} V (north)
\item C   good with.1.S      John.ACC the sentence.ACC TRAN write
\item 'I want John to write the sentence'
\item \textbf{16)} Ba mhaith liom \[CP Seán fanacht\] SV (north)
\item C   good with.1.S      John.ACC wait
\end{itemize}

We adopt the position presented first in Duffield (1991) (contra McCloskey and Sells 1988, Guilfoyle 1993, Ramchand 1993, and Duffield 1995), and articulated most fully in Bobaljik and Carnie (1996) that the \textit{aL} particle is an Agr head and is itself the accusative case assigner. In particular, we claim that it is the Spell-Out of the AgrO head. This claim is supported by the fact that the presence of this particle is tightly linked to the appearance of accusative case. Consider the facts from Northern Irish. This dialect does not allow the SVO order seen in (13) above. Instead it always requires an SOV order (15). The \textit{aL} morpheme, however, only appears when an overt object is present (16).
There are empirical reasons to believe that \( \phi \) movement is not in standard

Given this close link between \( a_L \) and accusative case, leftwards shift of the object to the specifier of AgrO, headed by \( a_L \), seems to be fairly well motivated. This is schematized in (17):

\[
\begin{array}{c}
\text{AgrO'} \\
\text{AgrO} \\
\text{VP} \\
\text{aL} \\
\text{V'} \\
\text{V} \\
\text{Obj} \\
\end{array}
\]

Unlike Duffield (1991), but following Bobaljik and Carnie (1996), we assume that this object shift for case reasons happens in both finite and non-finite clauses.

3.4 PROBLEMS WITH THE AGROP ANALYSIS.

The account of object placement we have given above in section 3.3 is simple and consistent with both the basic facts and much recent theorizing. It is not, however, without controversy or problems. Some of these problems are tied to the functional projection AgrO itself, others to its placement, and yet others with respect to specific theoretical issues. In this section, we present the problems we consider to be linked directly to the object argument, and present our solutions to these problems. In chapter 4, we examine some other problems related to the interdependence between the positions of the subject and object arguments, and further extend our functional structure on the basis of that discussion.

3.4.1 AGR0? ASPECT? OR LITTLE V?

In light of recent work (e.g. Chomsky 1995) on functional structure, perhaps the most controversial part of our approach to object positioning is in our identification of \( a_L \) with a semantically vacuous Agreement projection. At least two alternatives to this exist in the literature: the first is that \( a_L \) is an aspectual head, the other that \( a_L \) is the head Chomsky calls 'little v'. We believe that neither of these approaches is correct, and that the more empirical evidence that \( a_L \) is an aspectual head than that \( a_L \) is the head Chomsky calls 'little v'.

Let us first consider the \( a_L \) as aspect approach (Guilfoyle 1994), building on some

In empirical and other evidence, our functional structure is the basis of our discussion.

Affirmations and counter-examples of our functional structure on the basis of this discussion, and further questions raised in the previous chapter. The position of the subject and object

Given the close link between \( \phi \) movement and accusative case, we examine some other

This section, we present the problems we consider to be highly complex, and the object

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3.4 PROBLEMS WITH THE AGROP ANALYSIS.

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Gaelic equivalent of this particle behaves like an agreement morpheme. As discussed in McCloskey and Hale (1984), subject agreement and overt nominal arguments in Irish and Scots Gaelic are in complementary distribution. Except under very specific circumstances, the presence of an overt nominal argument precludes the appearance of agreement. Interestingly, in the speech of older speakers, the “transitive” particle behaves in exactly the same way as overt subject agreement. When an overt object NP is present, it takes the form of the default third person possessive pronoun aL (19a). When no overt object NP is present it is inflected for person and number (19b). When agreement is present no overt NP may surface (19c). (These data are the Irish equivalents to Adger’s Scots Gaelic examples.)

19) a) Ba mhaith liom na buachaillí a bhualadh
   “I would like to strike the boys”

b) Ba mhaith liom mo aL/doL/aL/a/arN/bhúrN/aN  (m)b(h)ualadh
   “I would like to strike me/you/him/her/us/you/them”

c) *Ba mhaith liom na buachaillí a
   “I would like to strike the boys”

14Duffield (1991) claims that this option is not available for Irish. To our knowledge, he is incorrect in this regard. According to Ó Siadhail (1989) use of agreement is available in the speech of older speakers, especially in the Ulster dialect. Younger speakers tend to prefer using an overt pronominal and the default aL, but both forms are found. In prescriptive grammars and formal registers, the form with no overt nominal and an agreement particle is preferred. The second argument against analyzing aL as an aspectual particle comes from the fact that it can co-occur with other aspectual particles. In particular it occurs in conjunction with the proximate perfective particle tar éis:

20) Tá an teangeolaí [tar eis] an beoir aL ól.
   “The linguist has just drunk the beer”

This is not true of any other aspectual morpheme:21) *Tá an teangeolaí [tar eis] an beoir ag ól / ag ól an beorach.
   “The linguist has just been drinking the beer”

Notice that in sentence (20) the object follows aspect morphology. This is true more generally, the direct object (whether bearing structural accusative or inherent genitive) always appears to the right of and precedes aspect morphology. The only exception appears to be when a transitive subject occurs in the subject of the clause in question (e.g., the object follows aspect morphology). This is less moré
transitive clauses in non-finite contexts. In many ways then, the basic word order facts like
that in (20) seem to argue for a structure like that in (22).15

15 There is one more fact that bears discussion here: that being the word order in the
progressive aspect in Irish. Consider the sentence in (i):

(i) Tá mé ag scuabadh an bád / an bháid
Be I prog sweep the boat-acc/the boat-gen
"I am sweeping the boat"

In progressive aspect, unlike the perfective and the infinitive, the object always remains
post-verbal, where it can take either accusative or genitive case depending upon register and
dialect. The difference between the progressive aspect and other aspect constructions, we
believe, lies in the phonological status of the aspect particle. This particle is light (/´/) and
may very well be a clitic. We claim, then, that the verb raises to it for phonological support at
PF. The object could either remain in situ, take genitive case, or take accusative case in the
progressive aspect, with different word order differences in these forms. This follows from the
fact that agreement on progressive aspect is part of the VP, while object case is not. In a direct parallel to subject agreement on tensed verbs in tensed matrix clauses, we find
an agreement on progressive aspect in tensed contexts. This means that in the case
of the aspect particle, rather than an independent head, this object must be part of the
transparent word order. Where the object is dependent and null, there should exist an
adjunct phrase corresponding to it. We claim that the object either remains in situ
taking genitive case, or takes accusative case in the
spec of AgrO, which is lower than the raised verb supporting aspect. The phonological change
from genitive to accusative, and dialect differences in these forms, may well follow from the
ambiguity between these two post verbal object positions. This approach makes a very clear
prediction about agreement. If the verb has raised to Asp in the progressive, object
agreement, when overt (i.e. when the object is pronominal and null), should surface as part
of the Asp-Verb complex rather than as an independent head. This turns out to be the case.
In a direct parallel to subject agreement on tensed verbs in tensed matrix clauses, we find
that agreement on progressive participles is part of the AspP-V unit, rather than being a part
of the VP. Where the aspect particle is dependent and null, there should exist an
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of the Asp-Verb complex rather than as an independent head.
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22) Asp AgrOP VP AspP AgrO V taréis an beoir aL ól

The argument against aL being the head of Chomsky's little v is a slightly more difficult. Chomsky (1995) proposes that the case assigning/object shift causing functions of AgrO can be attributed to a light verb which introduces a subject argument. We might ask if aL is Chomsky's 'little v'. Notice that once again this proposal seems counterintuitive to the distribution of the aL morpheme. aL only surfaces when there is an accusative argument: in general, objects. This is opposite to the behavior expected from little v, which is linked to subject arguments. It is also important to observe that aL has the property (seen above in (19)) of agreeing with the direct object, a property that remains mysterious in the little v analysis. Even more remarkable is evidence brought up by Adger (1995). He notes that in Scots Gaelic, a language very closely related to Modern Irish, there is an obligatory, overt, subject-introducing light verb which can occur in the same clause as aL.

23) a) *Bu thoigh leam sibh/Màiri air an doras aL dhùnadh C like  with.1s you/Mary on the door aL close "I'd like you to have shut the door"
b) Bu thoigh leam sibh/Màiri a'bhith air an doras aL dhùnadh. C like  with.1s you/Mary prt.be on the door aL close "I'd like you to have shut the door" (Adger 1995)

For a subject to be licensed in Scots Gaelic an overt light verb a'bhith 'be' must be present, which, it seems obvious, should be analyzed as the realization of the little v head. This verb, if some options should be suggested as the realization of the little v head, is not to be raised in a subject clause in any high verb, although this must be present for a subject to be licensed in any high clause:

(Adger 1995)

The options with a high verb should show exactly the realization of the little v head. This verb must be raised in a subject clause in any high verb, although this must be present:

The answer gained c. being the head of Chomsky's little v is a slightly more...
In this chapter, we have considered the preliminaries of argument movement in Modern Irish. In particular, we've shown, using evidence from infinitivals, that Irish is underlyingly VO, and has a rule of object shift. The landing site of this object is argued not to be AspectP or vP, but an VP internal AgrOP projection. This was supported by word order data involving aspectual morphology and adverbials.

In the next chapter, we will complicate matters by discussing the interaction of subject movement with the object shift discussed above.

3.5 CHAPTER SUMMARY

In this chapter, we have discussed the interaction of aspectual morphology and adverbials. We have shown, using evidence from infinitivals, that Irish is underlyingly VO, and has a rule of object shift. The landing site of this object is argued not to be AspectP or vP, but an VP internal AgrOP projection. This was supported by word order data involving aspectual morphology and adverbials. In the next chapter, we will complicate matters by discussing the interaction of subject movement with the object shift discussed above.
Chapter 4

THE POSITIONING AND LICENSING OF SUBJECTS IN VSO ORDER

4.0 INTRODUCTION

Here, we turn to the discussion of subject position and licensing presaged in Chapter 1, and provide the final motivation for the clausal architecture which we present there. Some of the conclusions we will elaborate on in this chapter have been hinted at or partially explored in the previous chapters. For example, in chapter 2, we argued that the verb raises through the finite Inflectional complex to the highest head, where it remains in the left periphery. The subject argument, which immediately follows the verb, then must appear in the specifier position of a head lower in the INFL complex than the head occupied by the verb. By the same token, since the subject immediately precedes the object, and since we have shown in Chapter 3 that the object shifts in the overt syntax to the head of some functional projection, it must be the case that the subject occupies the specifier position of an inflectional projection. If this were the case, then the subject would occupy the specifier position of a functional projection that occurs in the overt syntax in the head of some verb.

However, there are serious problems, both theoretical and empirical, with such an account of Irish word order. In particular, the evidence that the object raises overtly presents three difficulties for this system. As we will see below, there are theoretical problems in deriving the SOV order of infinitives. In particular, if objects are shifted leftwards, movement of the subject to a pre-object position will result in a violation of minimality. We call this the "minimality problem." We also raise the issue of the motivations for the movements we are proposing. In particular, given Chomsky's (1993) AgrS-T-AgrO hierarchy, the set of movements required for Irish result in a structure where the strength of the Subject and Object AgrP features must differ — not a conceptually desirable result. We call this the "featural problem." In resolving these issues, we show how the conclusions about subject movement presented in McCloskey (1996) and adapted to the current architectural proposal resolve that issue as well. McCloskey's surprising result — that Modern Irish lacks the Extended Projection Principle, which can be assimilated to the featural treatment proposed elsewhere in the Minimalist Program — will then be used to explain a final peculiarity of Irish syntax: the distribution of PRO. In chapter 5, we present a new theory of PRO licensing, and demonstrate how it accounts for a variety of phenomena in PRO distribution in Irish, Icelandic and English more satisfactorily than the current case-based PRO treatments of, e.g., Chomsky and Lasnik (1993).
AGAINST VP INTERNAL SUBJECTS

Recall from Chapter 2 the existence of a family of analyses of VSO order which claim that the verb moves leftward around the subject, which remains in situ. The particular mechanism which permits the subject to stay in place in such analyses is usually some type of parameterization of nominative case assignment. For example, Sproat (1983, 1985) argues, using evidence from Welsh, that VSO languages differ from SVO languages in terms of the direction of their subject case assignment. VSO languages have strictly rightward case assignment. For Sproat, the verb must raise around an IP-based generated subject to adjoin to the S node in order to assign case rightwardly to the subject.

\[ \text{S} \rightarrow \text{NP} \rightarrow \text{VP} \]

This kind of story, given the VP internal subject hypothesis of Fukui and Speas (1986), Kitagawa (1986), Kuroda (1986), Koopman and Sportiche (1991), translates nicely into an account of VSO order. Under such an account, the subject remains VP internal, and the verb raises to INFL where it assigns rightward case under government.

\[ \text{IP} \rightarrow \text{INFL} \rightarrow \text{VP} \]


If we are to adopt the kind of theory outlined in the Minimalist Program (Chomsky 1993), discussed above in Chapter 1, however, this approach is unavailable to us. In the minimal framework, only Agreement (or other functional) categories (with adjoined verbal heads) assign case, and only so in the minimal spec-head relation. Case assignment under government is not an available option. However, case assignment may apply covertly at LF, due to the principle of Procrastinate. Chomsky's system, however, does allow subjects to surface VP internally, as discussed in the MPLT. Recall that movement for case checking may apply covertly at LF, due to the principle of Procrastinate. Chomsky (1993) subjects to surface VP internally, as discussed in the MPLT. Recall that movement for case checking may apply covertly at LF, due to the principle of Procrastinate. Chomsky (1993)
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(1993) claims that in VSO languages, the verb moves overtly before Spell Out and the arguments remain in situ until LF:

\[
\begin{align*}
AgrsP & \quad AgrS' \quad AgrS \quad TP \\
V & \quad T' \quad T \quad AgrOP \\
AgrO' & \quad t \quad VP \\
Subj & \quad V' \\
V & \quad Obj
\end{align*}
\]

At Logical Form, the arguments raise for case/feature checking:

\[
\begin{align*}
AgrsP & \quad AgrS' \quad AgrS \quad TP \\
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AgrO' & \quad t \quad VP \\
Subj & \quad V' \\
V & \quad Obj
\end{align*}
\]

There are two serious empirical problems with such an approach. First, there is evidence from Irish showing that subject DPs are VP external in the overt syntax in Irish. Recall McCloskey’s (1996b) facts about the placement of certain temporal adverbs. These are presumably VP adjoined, appear between the subject and the object in Irish:

\[\text{Níor shaothraigh Eoghan ariamh pingin} \]

If we assume that adverbs cannot be adjoined to a single bar level category, following, e.g., Travis (1988), Koizumi (1994), such an adverb position should not be available if both subject and object are VP internal. The second piece of evidence is discussed by Bobaljik and Carnie (1996), and elaborated in detail in Chapter 3 is that there is evidence from infinitives for overt object shift:

\[\text{Redodd Siôn ddim i ffwrdd ran pingin} \]

Under the assumption that adjectives are adjoined to a single bar level category, subjects in Pembrokeshire Welsh are higher than Negation, thus are higher than the specifier of VP.

Although it may be well motivated for Irish, this argument for Breton and Carnie (1996), and discussed in detail in Chapter 3 is that there is evidence from infinitives for overt object shift:

\[\text{Níor shaothraigh Eoghan ariamh pingin} \]

If we assume that adverbs cannot be adjoined to a single bar level category, following, e.g., Travis (1988), Koizumi (1994), such an adverb position should not be available if both subject and object are VP internal. The second piece of evidence is discussed by Bobaljik and Carnie (1996), and elaborated in detail in Chapter 3 is that there is evidence from infinitives for overt object shift:

\[\text{Redodd Siôn ddim i ffwrdd ran pingin} \]

Under the assumption that adjectives are adjoined to a single bar level category, subjects in Pembrokeshire Welsh are higher than Negation, thus are higher than the specifier of VP. It should be noted, however, that the class of constructions like this is very limited. In general, as noted by Ernst (1992) and Ó Siadhail (1989), adverbs appear at the end of their clause after the object and oblique arguments if there are any.

(1996) claims that in VSO languages, the verb moves overtly before Spell Out and the arguments remain in situ until LF:

\[
\begin{align*}
AgrsP & \quad AgrS' \quad AgrS \quad TP \\
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AgrO' & \quad t \quad VP \\
Subj & \quad V' \\
V & \quad Obj
\end{align*}
\]
There are three arguments that the subject of a VSO finite clause is not VP-internal.

1. There is a third argument that the subject of a VSO finite clause is not VP-internal, which arises from the behavior of objects in the passive. Object arguments, when a verb is passivized, appear to the left of the passive participle, as can be seen in the example in (6) below. Assuming base-generated SVO order, as outlined in Chapter 3 above, this entails that the derived subject of a passive construction has moved from its base position to the right of the finite verb. If derived subjects move for functional reasons and yet remain to the right of the finite verb, then we must assume that non-derived subjects also move overtly to this position and check the relevant features. To treat them as remaining in situ would be non-minimalist, as we would then assume an otherwise unmotivated difference in the position of the subject in actives and passives.

We can therefore assume a surface VP-internal subject approach to VSO is not tenable for Irish. Given this, we can now ask where the subject is located.

4.2 THE SPLIT-VP HYPOTHESIS

In Chapter 3 we argued that objects shifted to an AgrO projection headed by aP.

This position was claimed to be dominated by AspP, as evidenced by the positioning of aspect morphemes and temporal adverbs relative to the shifted objects. We alluded in Chapter 3 to the possibility that these functional projections were actually VP internal.

AspP

AgrO

VP

[100x230]Subj

obj V

vP

v

We may safely assume that derived subjects of a passive clause still remain in a non-projectional, non-prototypical VSO sentence structure. Hence clause. 

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In Irish. Given that nominative subjects always appear to the left of objects in Irish, and that Irish has overt movement of objects, it follows that if the object has shifted to the outside of the VP, the subject must also be outside the VP, a conclusion drawn independently by McCloskey (1996b) for Irish, and by Fassi Fehri (1993), Aoun, Benmamoun and Sportiche (1994), Rouveret (1991) for other VSO languages.

There is a third argument that the subject of a VSO finite clause is not VP-internal.
In this section we consider the evidence for this and show that a split VP (first proposed by Travis (1988)) is required for deriving the correct surface and underlying positions of the subject in Irish.

Let us first consider a couple of theoretical problems and empirical problems that arise under the view of objects we have proposed in section 3. First consider the following word order facts from Northern Irish:

10) a) Ní thaithníonn leat [ PROi dul]
    "You are not pleased to go"
    PRO V (north)

b) Ní thaithníonn leat [ mé an abairt aL scríobh]
    "you are not pleased (for) me to write the sentence" ECM V (north)

c) Ba mhaith liom [ CP é an abairt aL scríobh] 'I want him to write the sentence' ECM(acc) V

Northern Irish allows both overt and null subjects in embedded infinitivals (a fact that we will return to in the next chapter). Observe from these sentences, however, that the subject precedes the object. Similarly, note that in a tensed VSO clause, even if, as we have claimed, the object is shifted, then the subject precedes the object. As first observed in Bobaljik and Carnie (1996) and later expounded upon in Duffield (1995), this word order is problematic for the Minimalist (c. 1993) approach to these facts. In particular, it can be shown that the subject-first order of these clauses will necessarily result in a violation of Shortest Move and depending upon the featural motivations, the MLC formulation of locality as well.

Consider the following line of reasoning over subject placement: If the object has shifted to the left of the base position of the subject, and the subject appears to its left, then it follows that the subject is moved leftwards as well. This is also supported by the fact that subjects appear to the left of temporal adverbs, which we have argued appear higher than the functional projection AspP and AgrOP. Under a traditional VP-internal subject approach, the movement of the subject from Spec, VP to the specifier of AgrP requires leftward movement. This results in a violation of Shortest Move, since the subject precedes the object. This problem arises when the specifier of the object projection, Spec, VP, is higher in the phrase structure.

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The minimality problem: If OV order is derived, and subjects are base generated in the specifier of VP, why is SOV order not a violation of Shortest-Move? One simple and straightforward solution to this problem is to generate subjects higher in the clause than the surface position of objects. For Irish, this was proposed first in the literature by a variety of people, Guilfoyle (1993), Carnie (1995) and Noonan (1995). It is also what lies in spirit behind Chomsky's little v proposal (1995:352). The instantiation of this proposal which we adopt is the split VP repeated below:

\[
\vcenter{\hbox{\begin{array}{c}
\text{Asp} \quad \text{AgrOP} \\
\text{VP} \\
\text{AspP} \\
\text{AgrO} \\
\text{Subj} \\
\text{obj} \\
\text{V} \\
\text{vP} \\
\end{array}}}
\]

Movement of the subject will not result in a violation of minimality, since the violation-causing Agr projection is generated below it.

This approach also solves a problem that has not been noted before in the literature on Irish aspectual clauses. This is an apparent violation of the head-movement constraint in motivations). We leave this possibility open here, and simply assume the more conservative SM approach. This approach also solves a problem that has not been noted before in the literature on Irish aspectual clauses.

The recent perfective. We assume that the auxiliary verb \( \text{bí/tá/raibh} \) in Irish is generated as a light verb rather than being simply an overt realization of tense. (See Carnie (1995) shows that these patterns like verbs rather than like tense.) In traditional stacked VP systems for auxiliary constructions (see, for example, Guilfoyle (1990), Hoekstra and Mulder (1990) and Dubinsky (1994) for discussion) where all the functional projections dominate all the verbal heads, the verbal auxiliary must skip two heads on its way to initial position. In sentence (14), the auxiliary \( \text{Tá} \) must skip both the AgrO head and the aspectual head 9:

\[
\vcenter{\hbox{\begin{array}{c}
\text{I} \\
\text{AgrO} \\
\text{Tar} \\
\end{array}}}
\]

This is an obvious violation of Travis' (1984) Head-Movement Constraint (HMC). The split VP hypothesis provides a nice account of these effects, avoiding the HMC violation. The approach which we adopt is the split VP repeated above.

9 We assume that the light verb can be realized as either a null light verb, which the main verb raises to (resulting in VSO order), or as an auxiliary, as in all aspectual constructions.
This configuration of functional projections provides us with an elegant placement for each element in the recent perfective clause. Thus far we have seen purely syntactic arguments for this structure from Irish, to the effect that without it, we are forced to postulate movement which violates economy conditions. Rather than abandon economy conditions, we propose to adopt this more elaborate architecture. Elsewhere in the literature, there are other syntactic treatments of the VP which reach the same conclusion on the basis of evidence from other languages (Koizumi (1994), Runner (1995), Harley (1995b), Bobaljik (1995), and others). In addition, Kratzer (1995) provides semantic arguments that a split-VP architecture is the only way to solve the problem of deriving the correct interpretation. Rather, she concludes, subjects must be arguments of a separate function than the verb, which then combines with the main verbal head to give the correct interpretation. Bobaljik and Carnie (1996) observe that derived subjects appear in a position to the right of the verb, which is functional, but that derived subjects appear in a position to the left of the verb, which is functional, and so the problem of deriving the correct interpretation remains.

If we ceased our investigation at this point, we could perhaps assume that there was only one functional projection above vP in whose head the verb appeared, subjects remaining in situ in Spec-vP, and conclude that we had solved the problem of deriving VSO order in Irish. However, the subject overt movement in VSO order in Irish conflicts with the VP-internal subjects in the split-VP architecture. Moreover, derived subjects must appear in a different functional projection from the one in which the verb appears, giving the correct word order and providing a plausible temporal adjunction site for the adverbial.

In the present case, it provides us with a convincing solution to the Minimality problem of Bobaljik and Carnie (1996). If subjects are generated higher than objects, objects may shift overtly to the left of the verb to check Case and yet not violate any economy conditions. However, the problem of deriving VSO order in Irish remains.

The diagram below illustrates the functional architecture that we propose to adopt in our analysis of Irish.

---

**Diagram:**

- **A**: Main Verb
- **v0**: Finite Verb
- **vp**: VP (functional head)
- **vP**: VP (internal structure)
- **Spec-vP**: Subject position
- **vP-subject**: Subject position
- **vP-object**: Object position
- **AspP**: Adverbial position
- **Asp**: Adverbial

The architecture proposed above provides a plausible account of the placement of adverbials in Irish, as well as the correct order of subjects and objects. This architecture allows for the derivation of VSO order without violating any economy conditions.
must appear between vP and the uppermost functional projection in the INFL complex. We illustrate the structure of the INFL complex above vP as it must therefore appear in (16) below, not providing categorial labels for the relevant functional projections for the moment. (16)

Subj vP

AspP

finite verb

In the next section, we turn to McCloskey's arguments for the existence of the FP2 projection and its identity. We then demonstrate that such a projection resolves a theory internal problem having to do with featural content of the functional projections.

### 4.3 UNACCUSATIVES AND SUBJECT MOVEMENT IN IRISH (MCCLOSKEY 1996b)

McCloskey (1996b) argues against the widely accepted view that subjects in VSO languages are VP internal at SPELOUT, adducing evidence from Irish unaccusative clauses and passives. In Irish there are two large classes of semantically unaccusative verbs. The first class, which McCloskey dubs the "salient" unaccusatives, are those whose single internal argument appears in a prepositional phrase. The second class is termed the "putative" unaccusatives, whose internal arguments are NPs (DPs). Some verbs can appear in either class, shifting their single argument position from a prepositional phrase in a salient unaccusative to a DP in a putative unaccusative. The second class is then the "putative" unaccusatives, whose internal argument is an NP (DP).

4.3 Unaccusatives and Subject Movement in Irish (McCloskey 1996b)

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The interpretation of the two examples is essentially interchangeable:

(17)

Salient unaccusative

a. Neartaigh ar a ghlór

strengthened on his voice

"His voice strengthened"

b. Neartaigh a ghlór

strengthened his voice

"His voice strengthened"

Putative unaccusative

Prima facie, the VS word order does not indicate any obvious structural difference (other than the presence of the preposition) between these two sentences. However, there are several tests which provide evidence that the single argument insalient unaccusative cases is VP-internal. The cluster of properties which distinguishes the position of the argument in constructions of the salient type from constructions of the putative type can be seen in the table below, corresponding to examples in (19) and (20a-f). In every case, the single argument in putative unaccusatives behaves exactly like a canonical subject in an Irish transitive clause (indicated by the shading of that column), while the argument in salient unaccusative behaves like a canonical VP-internal PP.

---

### Carnes and Harley: Clausal Architecture

---

This voice strengthened this voice

b. Neartaigh a ghlór

putative unaccusative

This voice strengthened this voice

a Neartaigh on a ghlór

salient unaccusative

---

Carnes and Harley: Clausal Architecture

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We will not recapitulate all these arguments here, referring the reader to McCloskey’s work for the full exposition, but will discuss one. In Irish, as noted above, unmarked finite clause order is VS. By contrast, in non-finite clauses and small clauses, the order is SV. This is generally assumed to be because the verb does not move to the left edge of IP in non-finite clauses, either remaining in VP or only moving partially. In (120a) one can see that the PP of a salient unaccusative appears to be VP-internal, as it follows the verb even in a non-finite clause, like objects and PPs in transitive non-finite clauses. It thus appears to be VP-internal. In putative unaccusative non-finite clauses, however, the single argument precedes the verb, like a canonical subject (19b).

(19) Non-finite clauses
   a) Salient unaccusatives
      Indiaidh fealladh air fiche uair after fail [-finite] on-him twenty time
      “After he had failed twenty times.”
   b) Putative unaccusatives
      Indiaidh a shaibhreasméadú after his wealth increase [-finite]
      “After his wealth had increased.”

Similar evidence from clefting (as noted above, only VP-internal material may cleft), restrictions on subject resumptive pronouns (the highest subject argument in a relative clause may not be resumed by a pronoun while all other VP-internal material may be so), and adverbial placement (as outlined above) are shown in (20a-f). We refer you to McCloskey for more details.

(20) Clefting with the verb
   a) Salient unaccusatives
      [Ag éirí ar an leanbh] a bhí COMP was [rise [PROG] on the child] COMP was
      “It was becoming more agitated that the child was”
   b) Putative unaccusatives
      *[Is mo shaibhreas ag méadú] a          tá COMP my wealth increase [PROG] COMP is
      “*It’s increasing that my wealth is”

Highest Subject Restriction
   a) Salient unaccusatives
      an cnapán ar laghdaigh air the lump COMP lessened on-it
      “The lump that shrank”
   b) Putative unaccusatives
      *an cnapán ar laghdaigh sé the lump COMP lessened it
      “The lump that shrank”
McCloskey's argument is straightforward. The single argument of an unaccusative verb moves out of the VP only when it cannot receive Case from a preposition. This movement for Case-checking is clearly still lower than the highest inflectional head in expanded INFL, as the verb still appears to the left of the subject in finite clauses. If, on the other hand, the single argument receives Case from a preposition, as in the case of the salient unaccusatives, the whole prepositional phrase remains within the VP in its base-generated position. The movement (and lack thereof) in the putative and salient unaccusative cases is illustrated in the diagrams in (21), with only the relevant functional heads represented (the elision marks the position of the functional heads vP, AspP, and AgrOP, which are not relevant to the discussion at the moment):

\[\text{(21)}\]

Now let us consider the likely categorial identities of the two functional projections. Notice that in the Salient Unaccusative case, we have sentences without any subject DP, as the PP is a complement to V, and no specifier position higher than VP is filled at all. This means that the subject position is optional, the sort of behavior which in a Minimalist system is associated with AgrPs. Further, the sentences in which movement does not occur are instances where a DP receives Case from another source such as a preposition in the PP complement. This is illustrated in (22), with only the relevant functional heads represented.

\[\text{(22)}\]

With regard to the discussion at the moment:
We have thus arrived at the clausal architecture which we outlined in Chapter 1, working our way up from the bottom of the cluster of functional projections. The final structure in its entirety is illustrated again in (23) below, with some of the various checking characteristics of the functional projections indicated:

4.4 CONSEQUENCES OF THE REVERSAL OF TP AND AgrS

In this next section we show how intricate problems in determining the position of the finite verb in Irish, the obvious candidate is T, since the movement of the verb is conditioned by the finiteness of the clause: it moves to this position in finite clauses but does not move in non-finite clauses. This entails that the strength of the V-feature of T correlates with finiteness, as has been amply demonstrated for other verb-movement languages such as French. In this way we return to the classic TP over AgrS ordering of functional projections initially argued for in Pollock (1989), and argued for by Ouhalla (1991) for verb-initial languages.

In sum, we have shown that the basic ordering T over AgrS over AgrOP over V over vP over vP is overtly occupied by the finite verb in Irish, and that the clausal architecture which we outlined in Chapter 1 is thus the correct one. The final structure in its entirety is illustrated again in (23) below, with some of the various checking characteristics of the functional projections indicated.

Consider the fact that Irish objects move overtly for case-checking, shifting from their base-generated position to the right of the verb into the specifier of an AgrO projection to the left of the verb (if the verb is non-finite — this movement is not detectable if the verb is finite and hence has itself moved leftwards to a high functional projection.

We have thus arrived at the clausal architecture which we outlined in Chapter 1, working our way up from the bottom of the cluster of functional projections. The final structure in its entirety is illustrated again in (23) below, with some of the various checking characteristics of the functional projections indicated.
feature mismatch between the subject and object AgrPs. Recall that the subject AgrP under that system was the highest functional projection in the expanded INFL complex, appearing immediately below $C^\circ$. The verb, as we showed in Chapter 2, moves to the leftmost and highest functional projection in the expanded INFL complex, not reaching the $C^\circ$ head, as illustrated once again in (24): 

\[
\begin{array}{c}
\text{AgrSP} \\
\text{AgrS}' \\
[ \text{V} \text{V} \text{i} \text{i} \text{AgrO} ] \\
[ \text{AgrS} ] \\
\text{TP} \\
\text{ssssuuuubbbbjjjj} \\
\text{tiAgrO'p} \\
[ \text{AgrO} ] \\
\text{OOOObbbbjjjj} \\
\text{mmmmAgrO''} \\
\text{tiVP} \\
\text{tkV'} \\
\text{tm} \\
\end{array}
\] 

The problem is obvious: the D-features on AgrS which would require an DP to move to its specifier and check it must clearly be weak in this system, as no DP appears in Spec-AgrS to the left of the verb. However, we have clearly shown that the D-features on AgrO are strong, as the object shifts in the overt syntax outside VP to check its case features in the specifier of AgrO. On this system, the D-features on AgrS and AgrO are of a different valency. While the D-features on AgrS could potentially cause more problems, as no DP appears in Spec-AgrS to the left of the verb, the problem of the D-features on AgrO is more critical, as no DP appears in Spec-AgrO to the left of the verb.

Now consider the architecture we have arrived at here. The problem is obvious: the D-features on AgrS which would require an DP to move to its specifier and check it must clearly be weak in this system, as no DP appears in Spec-AgrS to the left of the verb. However, we have clearly shown that the D-features on AgrO are strong, as the object shifts in the overt syntax outside VP to check its case features in the specifier of AgrO. On this system, the D-features on AgrS and AgrO are of a different valency. While the D-features on AgrS could potentially cause more problems, as no DP appears in Spec-AgrS to the left of the verb, the problem of the D-features on AgrO is more critical, as no DP appears in Spec-AgrO to the left of the verb. The problem is obvious: the D-features on AgrS which would require an DP to move to its specifier and check it must clearly be weak in this system, as no DP appears in Spec-AgrS to the left of the verb. However, we have clearly shown that the D-features on AgrO are strong, as the object shifts in the overt syntax outside VP to check its case features in the specifier of AgrO. On this system, the D-features on AgrS and AgrO are of a different valency. While the D-features on AgrS could potentially cause more problems, as no DP appears in Spec-AgrS to the left of the verb, the problem of the D-features on AgrO is more critical, as no DP appears in Spec-AgrO to the left of the verb.
In switching the ordering of the TP and AgrSP projections, therefore, not only do we arrive at a structure which is consistent with McCloskey's conclusions about the position and ordering of functional projections in Irish, but we resolve the conceptual problem of the differing feature valencies of the Agr projections.

There is one serious consequence of the reversal of the projections for Chomsky's case-assignment system. Under the clausal architecture proposed here, no dependence between the T head and the case-assigning Agr head can exist. Under Chomsky's proposal, the nominative Case feature is a property of the lexical T head. The AgrP which dominates TP serves merely as a facilitator. The T head adjoins to the Agr head, and hence an DP moving into Spec-AgrS may check the nominative Case feature on the T head. The AgrP has no case-assigning head which is checking the feature.

Under the present proposal, where the T head is the uppermost projection in the INFL complex, no such dependency between the T head and the Agr head may exist. If it were necessary for the Agr head to combine with T to permit T to assign case, McCloskey's account of the facts of Irish unaccusative clauses would be impossible. He shows crucially that subjects move, for Case reasons, to a projection below the projection in which the finite verb appears. When no Case-checking needs to occur (because the single argument is in a PP), no DP movement needs to take place despite the fact that the finite clause should still have a strong Case feature. Rather, the entire clause should still have a strong Case feature, and the finite clause in question must therefore be repeated. We argue that this sequence holds true for both English and Irish, and that the feature specifications in the current system are listed in the table below.

<table>
<thead>
<tr>
<th>Language</th>
<th>D-feature of T</th>
<th>D-feature of Agr</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>Strong</td>
<td>Weak</td>
</tr>
<tr>
<td>Irish</td>
<td>Weak</td>
<td>Strong</td>
</tr>
</tbody>
</table>

There are arguments that in fact, the Agr feature in English is strong. Koizumi (1994), Harley (1995), and Harley and Noyer (1997) present arguments that the object shifts overtly to Spec-AgrO, while the verb moves to vP and stops there. The feature specifications for English and Irish in the current system are listed in the table above. The feature specifications for English and Irish in the current system are listed in the table above.
The next question which we must address, then, is the nature of the D-feature on T and its variation in feature strength between Irish and English, and the consequences of removing all Case assignment properties from Tense entirely. The first of these issues we address in the next section; we go on to treat the second in Chapter 5.

4.5 THE EPP IS NOT UNIVERSAL (MCCLOSKEY 1996)

What is the feature, then, which drives movement of an DP to the leftmost position in Spec-TP in languages like English or Icelandic but is permitted to remain empty in Irish? In Chomsky 1993 and later work, T contains a feature responsible for the assignment of nominative Case, and also contains a strong D-feature, the checking of which satisfies the Extended Projection Principle. Under the current analysis, as outlined above, Case assignment is solely the province of the Agr phrases. The only D-feature which T must check is the remaining EPP feature.

Unlike any other morphosyntactic feature in the framework, however, the EPP feature is assumed by Chomsky (1993) and later Minimalist work to be universally strong. The EPP feature represents the generalization, thought to be inviolate, which is loosely worded in grammar-school classes as "Every clause must have a subject." Efforts to derive the EPP from the notion of predication have been made, notably in Heycock (1991), consonant with the presumed universality of the EPP: if it is indeed universal, it would be necessary for movement to Spec-TP to be subject to constraints which are not testable. As going over the arguments for strong Agr in English is beyond the scope of this work, however, we will follow most of the literature in assuming that English is a language with a strong Agr.

The surprising result of McCloskey's work, outlined above, however, is that EPP feature, like any feature, is subject to variation, such that some languages show overt movement to satisfy the EPP, and some languages do not. Irish, as it has no movement to Spec-TP in the overt syntax at all, is therefore a language without a strong EPP feature.

The insertion of expletives, in Chomsky (1993), is for the purpose of satisfying the EPP feature, when a subject noun phrase, the associate of the expletive, is (for whatever reason) permitted to remain in situ, as in the example in (27) below.

(27) There is a man in the room.

A language with a weak EPP feature, then, should not require the insertion of an expletive to satisfy the EPP feature. Where other constraints (e.g. Case assignment requirements) are satisfied, a clause should be able to surface with no subject argument at all, even if the EPP is not satisfied. The insertion of a weak EPP feature, then, should not require the insertion of an expletive.

28) Tharla(sé) go raibh siad ann.

"It happened that they were there."
If Irish has no true expletive-associate conditions, it constitutes further evidence that Irish is not subject to the EPP.

The conclusion presented above to the effect that AgrP is responsible for case assignment, independent of TP — that is, T has no case feature whose value is checked by AgrP — no longer has a case feature whose value is checked by AgrP. Thus, PRO's distribution is no longer case-related, but rather, it is conditioned by the EPP feature on T itself, which is responsible for the finiteness of the T head. We turn now to this topic in the next chapter.
EXTENSIONS AND PREDICTIONS: CASE-MARKED PRO AND INFINITIVAL SUBJECTS

5.0 INTRODUCTION

In this chapter, we turn to some of the consequences of the clausal architecture outlined in the preceding four chapters, given the theoretical apparatus which we have employed here. We show that McCloskey's reversal of the Tense and Agreement nodes' respective positions has ramifications for the Case system, as it is treated in Chomsky (1993), and equally has consequences for the checking of the subject feature, the EPP. Given these conclusions, we demonstrate that we are forced to revise the theory of PRO within Minimalism, and show that this revised theory has desirable predictive consequences in a range of languages, in particular, of course, in Irish, and also in Icelandic.

The line of reasoning we will pursue in this chapter, outlined briefly, is as follows: McCloskey shows that Case assignment may not be dependent upon or linked to Tense. Since the distribution of PRO in languages like English is linked to tense, the conditioning factor governing its distribution is not Case. The Extended Projection Principle, however, is checked by a feature linked to Tense. Therefore, the conditioning factor governing the distribution of PRO in non-finite clauses is linked to tense; the EPP.

If this reasoning is correct, we make two strong predictions. Irish, demonstrating no EPP effects, should exhibit no restrictions on the distribution of PRO. That is, it should permit overt nominals in the subject position in infinitivals, and permit PRO to appear in the subject position in finite clauses. Secondly, we predict generally that PRO is case marked in the same manner as any overt NP, since its distribution has nothing to do with the Case licensing system. We will show that McCloskey's revised version of the EPP and Agreement nodes' consequences in the previous four chapters, given the theoretical apparatus which we have outlined in the preceding four chapters, fit the observed phenomena which we have mentioned in the introduction.

In this chapter, we turn to some of the consequences of the clausal architecture...
follows the infinitive verb. In (1b), on the other hand, the single argument of the unaccusative non-finite verb has no prepositional marker, and it precedes the non-finite verb, which McCloskey takes to indicate that the argument has moved from its base position in the complement position to a derived position to the left of the verb. This movement is motivated by the need for subject (nominative) case, as argued in the previous chapter. Note, however, that the finiteness of the verb has no effect on the availability of case. In these examples, these are non-finite verbs, which, according to conventional accounts, should not be able to assign nominative case. However, exactly the same movements that occur in a finite clause are here attested in a non-finite clause. We take this to be good evidence that Tense does not assign case in Irish, and indeed, given the universality of the proposed clausal architecture, in any language.

This conclusion, however, has deep implications for the theory of PRO licensing. PRO's distribution, in languages like English, is conditioned by the finiteness of TP. If case is not a feature of T, case may not be the feature which forces or disallows the appearance of PRO in this system. We have integrated AgrPs into the clausal architecture at the cost of making the claim that PRO's distribution, while dependent on Tense, is not dependent on Case. The distribution of PRO must then be the result of some other feature which depends upon Tense and may be subject to Case. We claim that PRO's distribution with dependents on Tense is a feature of Case. Thus, the distribution of PRO is not a feature of T, and may be subject to Case.

This conclusion, however, has deep implications for the theory of PRO licensing. Given that we have perhaps made a conceptual stride backwards in claiming that Irish is not subject to the EPP, persisting with this line of analysis might seem counterproductive. However, the line of argument concerning PRO which follows from McCloskey's analysis provides us with a strong and interesting prediction which turns out to be confirmed, and given the significance of this result, it seems to us that the claim of the EPP's non-universality must equally be true.

The prediction is as follows. As we demonstrate above, given the architecture we adopt, PRO's appearance must be conditioned by the EPP feature. This is not subject to the EPP, however, as we claimed above. Therefore, PRO's appearance must be conditioned by the EPP feature. However, the EPP must be checked by PRO in English, which follows from AgrCop's projection to the specifier of TP position. The Extended Projection Principle (EPP) is intended to be a universal constraint. PRO appears in the specifier of TP position.

EPP is a feature which enforces that the subject must dominate some element of the clause. This feature is derived from the requirement that clauses have a subject. McCloskey's work, however, shows that some languages, such as Irish, demonstrate no effects of the Extended Projection Principle. This means that the EPP is not a universal feature of all languages. It is subject to variation across different languages.

The conceptual motivation for the EPP is that it enforces the requirement that clauses have a subject. However, we claim that the EPP is not a universal feature of all languages. It is subject to variation across different languages. This means that the EPP is not a universal feature of all languages. It is subject to variation across different languages. This means that the EPP is not a universal feature of all languages. It is subject to variation across different languages.
Variants of the string EPP feature.

<table>
<thead>
<tr>
<th>Non-Finite Class</th>
<th>Finite Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>+phon</td>
<td>-phon</td>
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Thus, in Irish, overt subjects should be possible even in non-ECM infinitival clauses. This prediction is borne out. In (3a) we see an overt subject in an non-ECM infinitival clause:
Irish. The null subject in these constructions has all the interpretations which non-controlled PRO normally does: impersonal they, arbitrary one. Some examples may be seen in (4) below (data from Stenson 1989).

4) a. Buaileadh PROarbCiarraí sa gcluife deireanach
   They beat Kerry in the last game. "Kerry was beaten..."

   b. Siúilfear PROarbabhaile
   One will walk home.

   c. Deirtear PROarbgo bhfuil droch-aimsir in Éirinn.
   They say that Ireland has bad weather.

Stenson provides extensive argumentation to support her contention that PRO is the syntactic subject in this construction. First, she argues that the subject argument must be syntactically present in the autonomous impersonal for several reasons. The Impersonal forms of causative/inchoative alternating verbs necessarily entail the causative interpretation, and may not receive the arbitrary interpretation. Non-alternating unaccusatives, which never admit of an agentive interpretation, are ungrammatical with Impersonal morphology, and may not receive the arbitrary interpretation. Impersonal morphology is not compatible with the causative interpretation. Nor are there circumstances in which the Impersonal construction has the arbitrary subject in the autonomous impersonal. Finally, the null subject of the autonomous impersonal behaves differently from those constructions which have been thought to contain small pro on a number of points (absence of reflexive, demonstrative and contrastive marking, as well as the impossibility of subject coordination, movement of material, and coordinate attachment of subject). Subject-oriented adverbials are fine in sentences with Impersonal morphology. Impersonal morphology may appear on passives, with an arbitrary interpretation for the null derived subject, and finally, in control contexts, like that in (5) below, the Impersonal construction may serve as an antecedent for the controlled subject.

5) a. Caithfear a phutóga agus a chuid feola a scríobadh
   They will have to scrape his guts and flesh from the ground with spoons.

   b. Táthar ag iarraidh airgead a bhailiú
   They are trying to collect money.

In any case, such a movement of the null has been cast into doubt by Hicks (1989), who...
Irish, then, exhibits PRO in subject position in both finite and non-finite clauses. We claim that this behavior is exactly what is expected in a language which does not exhibit EPP effects, if the EPP feature of Tense conditions the distribution of PRO.

5.2 The [± Phon] formulation: extraction from English infinitivals

In English, the EPP feature is strong. This has two consequences. First, it must be checked before Spell-out, and second, when Tense is [-finite], it must be checked by a non-overt DP, as in infinitive clauses, the EPP feature will be [-phon]. Conversely, of course, in finite clauses, the EPP feature must be checked by a phonologically realized DP, as in that case it will be [+phon]. The [± Phon] formulation we adopt for the strong EPP feature is inspired by an old problem from wager-class verbs, which take an infinitive complement. In the infinitive, an overt NP is obviously ill-formed in subject position (6a,c), but, unexpectedly, a wh-trace is legitimate (6b,d):

6) a. *John wagered the horse to win.
   b. Which horse did John wager to win?
   c. *Mary assured me the woman to be intelligent.
   d. The woman that Mary assured me to be intelligent

The feature that PRO and wh-traces have in common is non-overtness. Our treatment will extend neatly to these facts, as we claim that Case (a requirement for wh-traces) is freely available in infinitives. This feature is perhaps similar to a requirement proposed for elements appearing in functional projections in Mohawk by Baker (1996); these elements are restricted to PRO, wh-traces or parasitic gaps: that is, essentially those which are not overtly phonologically realized.

It is further worth noting that on this formulation, we are forced to a Raising-to-Object analysis of ECM constructions. Consider the structure of the clause in (136):

Mary believed Susan to have left the room.

Obviously, on a standard account according to which the subject of the embedded infinitive remains in situ in the specifier of TP, the [-phon] EPP feature we propose will remain unchecked at Spell-Out and the derivation ought to crash. However, on an overt Raising-to-Object account, such as the one proposed in Harley (1995), the trace of A-movement in the specifier of TP will satisfy the [-phon] EPP feature and the sentence will be well-formed. Accounts of Raising-to-Object which are compatible with our clause structure in the Minimalist Program may be found in Koizumi (1995), Harley (1995) and most extensively in Runner (1995). If this treatment of English infinitivals turns out to be incorrect (for instance, wager-class verbs may turn out to have an alternative treatment) we may still preserve our account.
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by simply claiming that the EPP feature of TP varies between [±PRO] variants. In this initial formulation, however, we wish to make as general a claim as seems reasonable.

5.3 CASE ON PRO: EVIDENCE FROM ICELANDIC

A consequence of the analysis as presented is that PRO receives case just like any other NP, and nominative case is available in infinitival clauses in order to force PRO to appear in finite clauses, replacing the [±PRO] feature of TP. Thus, in order to force PRO to appear in finite clauses, the subject argument of the infinitival clause is replaced by PRO to force PRO to appear in finite clauses. In order to force PRO to appear in finite clauses, the subject argument of the infinitival clause is replaced by PRO to force PRO to appear in finite clauses.

This clearly suggests that PRO bears morphological case and nominal case, and...

(8) a) Strákarnir vonast til [a PRO leiðast ekki öllum í skóla] the boys Nom hope for [to PRO-Dat bore not all in school]
   "All the boys hope to not be bored in school.

b) Strákanum leiddist [a PRO verðið a kosnir í stjórnina] The boys-D accusative be elected [to PRO-N be elected to the board]
   "The boys were elected to the board.

Now, consider the examples in (8). Case agreement with floated quantifiers or participles associated with the subject in infinitival clauses is preserved with the PRO subject. For discussion see Harvey (1995).

This clearly suggests that PRO bears morphological case and nominal case, and...

The reciprocal with the NP with which they are affiliated would then be a problem just as...
In such infinitives is because the [-phon] EPP feature forces it to, not because abstract nominative case is not available. For a fuller working-out of these ideas, see Harley (1995).

Even in the present brief sketch, however, it should be clear that there is no obstacle to assuming that the appearance of PRO is conditioned by the EPP in languages like English and Icelandic, and indeed, there is evidence which demonstrates that PRO bears morphological case, further supporting the EPP-based treatment and casting doubt on the case-based treatment of, for example, Chomsky and Lasnik (1993).

5.4 THE CONCEPTUAL NECESSITY OF AGRP

Let us now examine the status of AgrPs in the larger context of a Minimalist theory. First, we consider the function of AgrPs in their original formulation, in the 1993 Minimalist Program. In that system, both EPP and Case features are checked by the Tense head, although an additional factor complicates the checking of the Case feature: in order to check the Case feature of Tense, the Tense head must raise to the Agr head which dominates it, as illustrated in (138) below, and the Case feature of Tense (as well as Tense's EPP feature) is checked via the mediation of this Agr head:

For Chomsky (1993), the Case feature must be a feature of the Tense head because Case conditions the appearance of PRO, which is clearly correlated with the presence or absence of finite or non-finite Tense. However, this set of assumptions results in a system which seems otiose and unnecessary; why can't the T head check its Case feature directly against a subject NP? Why is the Agr head necessary to check the Case feature of Tense? Why is it not clear why certain optional and unecessary complications arise in a system which seems otiose and unnecessary? Moreover, the appearance of PRO, which is clearly correlated with the presence or absence of Tense, is not a feature of the Tense head because the Case head is considered in the 1993 Minimalist Program. In this system, both EPP and Case features are checked by the Tense head, although an additional factor complicates the checking of the Case feature: in order to check the Case feature of Tense, the Tense head must raise to the Agr head which dominates it, as illustrated in (138) below, and the Case feature of Tense (as well as Tense's EPP feature) is checked via the mediation of this Agr head:

Here, however, we have presented arguments from both object movement and subject movement that demonstrate the empirical necessity of exactly this type of Agr projection: a projection which is only present when an NP which requires Case appears in the derivation, and to which this NP may move to receive said Case. How, then, may we modify the set of assumptions of Chomsky (1993), so that AgrPs are present, Case-checking mediated AgrPs, and replace the system so that the functional considerations that provide the empirical evidence we have advanced in connection with Chomsky's (1993) system are still be considered relevant?

The crux of the problem, then, is that the position taken by Chomsky (1993) is not that PRO is a feature of the Tense head, but rather that it is a feature of the Agr head. In order to accommodate the empirical evidence, Chomsky (1993) posits an Agr head which raises to the Tense head in order to check the Case feature of Tense. However, this set of assumptions results in a system which seems otiose and unnecessary; why can't the T head check its Case feature directly against a subject NP? Why is the Agr head necessary to check the Case feature of Tense? Why is it not clear why certain optional and unnecessary complications arise in a system which seems otiose and unnecessary? Moreover, the appearance of PRO, which is clearly correlated with the presence or absence of Tense, is not a feature of the Tense head because the Case head is considered in the 1993 Minimalist Program. In this system, both EPP and Case features are checked by the Tense head, although an additional factor complicates the checking of the Case feature: in order to check the Case feature of Tense, the Tense head must raise to the Agr head which dominates it, as illustrated in (138) below, and the Case feature of Tense (as well as Tense's EPP feature) is checked via the mediation of this Agr head:

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Here, however, we have presented arguments from both object movement and subject movement that demonstrate the empirical necessity of exactly this type of Agr projection: a projection which is only present when an NP which requires Case appears in the derivation, and to which this NP may move to receive said Case. How, then, may we modify the set of assumptions of Chomsky (1993), so that AgrPs are present, Case-checking mediated AgrPs, and replace the system so that the functional considerations that provide the empirical evidence we have advanced in connection with Chomsky's (1993) system are still be considered relevant?
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5.5 TP ON TOP AND TRANSITIVE EXPLETIVE CONSTRUCTIONS

Let us briefly consider the ramifications of the expletive insertion which occurs in this context. Conventional support for the expletive insertion which occurs in this context is provided by Bobaljik and Jonas (1996). We claim that the expletive we propose allows for a different distribution of PRO in Irish than in English. In English, PRO is distributed in a non-finite clause according to a Case requirement, while in Irish, PRO is distributed independently of Case. This allows for a more flexible distribution of PRO in Irish than in English, which is consistent with the data presented in this chapter.

The distribution of PRO in Irish is determined by the presence of a Case Filter. PRO is required to satisfy the Case Filter, which forces the insertion of an expletive to satisfy the Case Feature of T. The expletive insertion is triggered by the presence of PRO in a non-finite clause. This allows for a more flexible distribution of PRO in Irish than in English, which is consistent with the data presented in this chapter.

The question of whether PRO is distributionally restricted to finite clauses or not is an open one. The data presented in this chapter suggests that PRO is not distributionally restricted to finite clauses in Irish. PRO can appear in non-finite clauses as well, which is consistent with the data presented in this chapter.
Another configuration in which the EPP feature may be checked is available in the in a language like Icelandic, as seen in the Transitive Expletive Construction (TEC) in (11) below. Bobaljik and Jonas' (1996) analysis of this is that the subject DP can appear overtly in the specifier of TP, checking the EPP feature, as long as an expletive is simultaneously inserted in initial position in this specifier of AgrSP.

11) Icelandic Transitive Expletive (Multiple Subject) Construction

- a. fi D lauk einhver verkefninu...
  - there finished someone the.assignment ...

b. Bobaljik and Jonas (1996)
  - AgrSP  
  - TP  
  - VP  
  - NP
  - NP
  - (expletive)
  - ....
  - ....

Unfortunately, this analysis, while obtaining the correct word order facts, has an undesirable consequence: the expletive *fi* is inserted in the specifier of AgrSP to check strong phi-features, rather than to satisfy the EPP, which is checked in the specifier of TP by the indefinite subject. Note that the analysis fails to account for the behavior of the English expletive *there* by the same principles, because the EPP, which is checked in the specifier of TP by the subject, is not inserted in the specifier of AgrSP to check the EPP. Nonetheless, this analysis will determine the correct word order facts for an.

The clausal architecture we have established for Irish, on the other hand, permits an elegant account of the agreement facts and expletive positioning in Icelandic TECs. The current analysis is again illustrated in the tree in (12).
The expletive there seems to be the unification of the treatment of expletives across the two languages, which is highly desirable as a result of the architecture proposed here. It satisfies T's strong EPP feature, just like the insertion of the English expletive there.

5.6 FURTHER REMARKS ON THE DISTRIBUTION AND INTERPRETATION OF PRO

The present theory of PRO has other consequences, some of which seem immediately promising, others of which will require further investigation. One of the former is the following: in a strong EPP language, the appearance of PRO is determined by the presence of Tense. In clauses in which no Tense node is present, PRO in subject position should be freely distributed, exactly as in Irish infinitivals. This seems to be the case in gerunds, where either an overt subject or a PRO subject may felicitously appear, as illustrated for English in (13) below:

13) a. Her winning the speed skating is something I'd like to see.
   b. Breaking the speed skating record isn't possible.

We do not attempt a structural account of English gerunds here; see Siegel (1997) for a plausible analysis compatible with the present approach according to which gerunds are headed by AspectP. The crucial assumption, however, must be that no TP, finite or otherwise, is present in these gerunds. Hence, there is no EPP feature to force the [-phon] feature to apply, and we get free alternations between PRO and overt subjects.

We do not attempt to specify the interaction between PRO and overt subjects. Since PRO is sensitive to head-finality, it may be generated in any position, as may any DP, so long as it is appropriately theta-marked and case-licensed. Given this, it may seem that we predict the generation of many unattested structures, with PRO present in object position or as the object of a preposition. It is our intuition, however, that these structures may be appropriately ruled out by the nature of the requirements that PRO must satisfy to be interpreted. Without a concrete theory of the interpretation of PRO, our discussion of this point is speculative, but we feel there is a clear indication of the line of argumentation that must be adopted. We will assume that PRO is [+anaphoric], interpreting this to mean it has no phi-features of its own, and attempts to inherit them from c-commanding elements within the relevant domain, however that may be determined. If no appropriate element is available, it will be assigned a default interpretation of "arbitrary they" or "one".

Evidently, much work remains to determine the exact status of obligatorily controlled PRO. However, it is clear that future developments are possible.

Another prediction of the current proposal is that PRO may be freely generated in subject position, exactly as any DP, so long as it is appropriately theta-marked and case-licensed. This seems to be the case in gerunds, where either an overt subject or a PRO subject may felicitously appear, as illustrated for English in (13) above:
In this chapter, we have explored some theoretical consequences of the clausal architecture we have outlined. Moreover, the process of PRO, as we argued, must be

...
In the preceding five chapters, we have considered the structure of the Modern Irish clause in great detail. In order to account for many diverse facts, we adopt a highly articulated clausal architecture, including Agreement Phrases, which have been dropped from much recent syntactic discussion. However, given the substantial syntactic evidence for their existence which we consider, we feel that the elimination of AgrPs is premature. The onus is on those who favor a more stripped-down structure to account for the empirical evidence we present which mitigates against such an approach. In this chapter, we briefly summarize our arguments and conclusions.

The full structure we adopt is shown again in (1) below:

\[
\text{(1)} \quad \text{TP} \quad \text{T} \quad \text{AgrSP} \quad \text{Asp} \quad \text{AgrOP} \quad \text{VP} \quad \text{AspP} \quad \text{AgrO} \quad \text{AgrS} \quad \text{obj} \quad \text{V} \quad \text{EPP} \quad \text{CASE} \quad \text{External Arg} \quad \text{v} \quad \text{vP} \quad \text{In}
\]

In Chapter 2, we offered extensive argumentation, from both synchronic and diachronic facts, that the verb-initial order of Irish is derived by raising the verb to a functional projection outside of VP. The evidence we consider suggests that, although Old Irish did, in some instances, move the verb to C, Modern Irish never does. The verb-initial order is derived by raising the verb to the highest projection in the Inflectional complex. The arguments against a raising-to-C approach come largely from McCloskey (1996b). Since the verb appears to the right of the subject, the final determination of which functional head it occupies is forced by our analysis of subject position, but we note that it is suggestive that verb movement occurs only in finite clauses — that is, verb movement is head-driven. The verb, however, is raised by our analysis of subject position, but we note that it is partially driven by raising the verb to the highest projection in the Inflectional complex.

In Chapter 3, we considered the question of whether Irish objects occupy their base-generated position at surface structure, and concluded that the answer is, in most instances, no. In most non-finite clauses, the object occurs to the left of the non-finite verb, which might lead one to posit an underlying SOV order for Modern Irish. However, there are a number of cases in which the object is raised by raising the verb to a functional projection outside of VP. The evidence we consider suggests that although Old Irish allows a number of cases, this is not the case for Modern Irish.
certain dialects, infinitive SVO orders, with genitive case marking on the object. Crucially, in this situation, a particle which agrees with the object appears to the left of the infinitive verb. This particle, however, never appears when the object appears to the left of the infinitive verb, and, furthermore, accusative-marked objects must appear to the left of the infinitive verb. However, prepositional phrases always follow the infinitive verb. This conjunction of facts suggests to us that the object is base-generated to the right of the verb and moves, for case reasons, to the position to the left of the verb. This position, when the object does not move there, is headed by the agreement particle. Since this position is associated with agreement and accusative case, we assume it to be identifiable with AgrOP.

We introduced another functional projection in this chapter, that of Aspect Phrase. Aspectual particles in Irish appear to the left of the above-mentioned object particles, and to the right of the subject. We take this to indicate the position of the AspP projection, which we assume is headed by these particles. Due to considerations of economy and certain empirical word order facts, we tied the presence of this AspP to a split vP structure in chapter 4.

Chapter 4 is concerned with the generation and placement of subject arguments in the Irish clause, adopting the split-vP structure which is now widely supported by an extensive literature. In Irish, facts from light-verb auxiliaries provide structural evidence for the existence of the upper vP head. We show, however, that the split-vP approach is not enough to capture the full range of facts about subjecthood in Irish. There must, in addition, be a functional projection between the position of the verb and the base-generated position of external arguments to which subject NPs move in the overt syntax. This is necessary because both derived subjects (= notional objects) and thematic subjects (= agents) appear in a position to the left of infinitival verb forms and temporal adverbials, and furthermore, cluster together in behavior with respect to a battery of syntactic tests. That is, subjects, whether themes or agents, appear overtly in the specifier of a functional projection outside vP. Crucially, however, if a thematic object can receive case from another source — for instance, from a preposition — no movement to this functional projection is necessary. We conclude, following McCloskey, that movement of subject arguments to this functional projection which is lower than the verb, is motivated for case reasons. The failure of the subject to move to the highest position is due to the fact that VSO languages are "weak EPP" languages in the sense of McCloskey (1996b). We tie EPP to a high tense projection, and case to a low Agr projection.

In the first four chapters, then, we have motivated the fully articulated structure illustrated in (1) at the beginning of this chapter. In chapter 5, we go on to present some empirical consequences associated with adopting this structure. In particular, we focus on the relationship between the value of Tense (finite or non-finite) and the availability of nominative case. The structure we have adopted does not allow for the standard account, whereby finite Tense has a nominative case feature available to assign. Interestingly, nominative case is clearly available in Irish non-finite clauses, providing initial empirical support for this conclusion.

When we consider the original motivation for associating nominative case with finite Tense, we arrive at the conclusion that it has to do with the conditions under which big PRO is licensed. In languages like English and Icelandic, for instance, there is no such constraint. However, in languages like Irish, where PRO is free in subject position of finite and non-finite clauses, it is necessary to assume that PRO is licensed by a functional projection below the verb. We suggest that in fact, the feature on the Tense head which accomplishes this is not case, but rather the Extended Projection Principle. If this is the case, languages without EPP effects like Irish might be expected to show a free distribution of PRO in subject position, which is in fact the case. We conclude that this is a necessary condition for the presence of EPP effects in Irish, and tie EPP to a high tense projection, and case to a low Agr projection, as in (1).
expletive-insertion for EPP-satisfaction, and the distribution of PRO in non-tensed environments. We conclude that there is considerable empirical evidence suggesting that PRO's distribution is conditioned by the Extended Projection Principle, and is not a problem associated with case in any way. The theory of clausal architecture we have arrived at on entirely independent grounds, then, makes interesting and testable predictions about core elements of syntactic theory, which turn out to have considerable empirical support.

Through an in-depth investigation of Irish clause structure we have arrived at firm conclusions about the syntactic structures which UG makes available, and illustrated some of the ways in which this universal syntactic structure can be exploited to yield differing word orders. An interesting question, which we leave open, is the issue of why certain languages have certain parametric settings and others do not, and further, why certain parametric settings seem to be more privileged than others. That is, why is the number of languages which have certain parametric settings and others do not, in general, lower than the number of languages which have certain parametric settings and others do not? What are the ways in which this universal syntactic structure can be exploited to yield different constructions among the language structures which UG makes available and illustrated some core elements of the language faculty in the mind/brain, which is the broader subject of inquiry of this investigation and of the Minimalist Program in general.
Appendix A

NON-RAISING APPROACHES TO VSO ORDER

A.1 Universals and Order

In the principles and parameters framework, it has long been assumed that simple differences in word order are the result of binary parameter settings such as the headedness and specifier parameters, or more recently due to the setting of strong/weak features on inflectional projections. For example, in the older GB framework SVO order is derived by assuming that both heads and specifiers appear on the right of the phrase structure tree. Similarly, SOV order could be derived by switching the headedness parameter to the left (Travis 1989). It would be a pleasing result if we could derive VSO order in a similar way, i.e., in the form of a VSO parameter as suggested by Sproat (1985). What is relevant for our purposes, however, is how well these alternatives fair with respect to Irish. Overwhelmingly, they seem to fair quite poorly.

Let us briefly consider the logical possibilities for deriving VSO order. Perhaps the simplest derivation of VSO is that there is no derivation at all: that VSO order is the base generated order. This approach is called the "Flat structure approach" and is discussed in section A.2. If we can rule out this option, there are two possibilities for deriving VSO order from a [VO] constituent. The first of these, that which is adopted in the main body of this book, is to move the verb to some initial position. Since this is thoroughly treated elsewhere, we leave this aside. The second possibility is to move the subject from a position that is VP external to a VP internal position: (S[VO] → tsubj [V S O] or [V O][S] tsubj). This kind of derivation is called the "subject lowering approach" and is discussed in section A.3. Finally, we have the option of deriving VSO order by moving the object from a VOS order to a VSO order ([V O][S] → [[V O][tobj] S] O). We call this the "object postposing approach" and discuss it in section A.4.

A.2 Flat Structure in the Syntax of VSO

Early work in the generative grammar of VSO languages, such as Schwartz (1972), Anderson (1984), Awberry (1976), Tallerman (1990), Stenson (1981), McCloskey (1979, 1980), and Chung (1983), assumed that VSO languages differed from SOV and SVO languages in lacking a VP phrase structure rule:

1) a) SVO: S → NP VP
   b) VSO: S → V NP NP

There is no such VSO parameter. Instead, VSO languages derive their word order by other means. This appendix, however, is intended to be a preliminary result, and we refer the reader to McCloskey (1993) for a more detailed discussion.

\[\text{A.2 Flat Structure in the Syntax of VSO}\]
This class of languages, then, had a "flat structure" for its underlying word order:

2)

S       V       NP     NP

Such a structure makes very clear predictions about the behavior of the subject and object arguments. As noted by Berman (1974), who was replying to McCawley's (1970) VSO analysis of English, it predicts that subject and object NPs, since they are both post-verbal, should not be distinguishable in contexts where only one NP argument appears. In other words, Verb-Object sequences and Verb-Subject sequences should behave identically with respect to various syntactic processes.

Anderson and Chung (1977) argue that this is not true for many languages that are clearly VSO. Samoan and Tongan, two VSO languages of the South Pacific, show demonstrable differences between VO and VS sequences in the interaction of Equi-NP Deletion and Subject-to-Object Raising — two rules that make reference to subjects and not to objects. If the VO and VS sequences are structurally indistinguishable, then verbs that allow both Equi and Subject-to-Object Raising to apply should allow Subject-to-Object Raising to apply to objects, provided Equi has applied to delete the subject in an embedded context. This prediction is false, as seen in the following Samoan data.

3)

a) 'Ua ma nanana' o tagata e maalue i le paalota
perfl want-pl people fut win in the election

"People wanted to win in the election."

b) E ma nanana' o tagata i le paalota 'ia manuia
fut want-pl people at the election irreal be-well

"People want the election to turn out well."

c) *Sa nanama' o tageta i le galo e pu'e
past want-pl people at the burglar fut catch

"People wanted the burglar to catch."

The Samoan verb "ma" allows Equi-NP Deletion, as in (3a), as well as Subject-to-Object Raising, as in (3b). Given that we could create a control context in which the subject of an embedded transitive clause was deleted via Equi-NP Deletion, the order VO to Object Raising is an (3c). Given this, we could create a context in which the order VO to Object Raising would result in the embedded clause. If VO and VS sequences are not distinguished in the grammar of a language, then verbs that allow both Equi and Subject-to-Object Raising to apply should allow Subject-to-Object Raising to apply to objects, provided Equi has applied to delete the subject in an embedded context. This prediction is false, as seen in the following Samoan data.

2We do not discuss here the two arguments that have been advanced in favor of flat structure for VSO languages, since, as will be seen below, the evidence against such an approach is overwhelming. The first of these arguments is presented in Chung (1990), where she argues that the subject position in Chamorro is properly governed, thus accounting for the lack of that-trace effects and Sentential Subject Constraints in that language. We refer the reader to Sproat (1985) for extensive criticism of this approach, and to Chung (1990) for a reinterpretation of these facts. The second argument has to do with the binding facts of Jacaltec discussed in Woolford (1991). This view is not consistent with more recent assumptions in the field of government and binding. Their argument then is not really consistent with more recent assumptions.

However, the empirical facts do show that VO and VS sequences are structurally indistinguishable, and that verbs that allow both Equi and Subject-to-Object Raising to apply must be distinguished in the grammar of a language. This is true for many other VSO languages, as well.

S

V

NP

NP

The Samoan data show that verbs that allow Equi-NP Deletion and Subject-to-Object Raising should distinguish subjects from objects.

2The diagram makes very clear predictions about the behavior of the subject and object arguments.
Typological arguments against a VP-less analysis (like that in (1)) of VSO languages were first presented in Emonds (1980), based on Greenberg's (1966) universals. In particular, Emonds argued that VSO languages are all derived from SVO structures. His observations based on the typology of VSO languages are quite insightful and foreshadow much later work on the head movement of verbal predicates. First, he notes that VSO languages are much rarer than SVO languages. This, he claims, follows directly from the fact that VSO order is always derived, and SVO is a base order; the more derivation, he claims, the rarer the word order type. Woolford (1991) points out that given our current assumptions about V to INFL movement in SVO languages such as French (see for example Pollock 1989), such an argument cannot hold, since many SVO languages also have derived word orders. She accounts for the relative rarity of VSO by the fact that there are simply more ways to derive SVO than VSO (cf. Emonds' observation that VSO order alternates with SVO order), so VSO appears to be more frequent than SVO in simple sentences. Emonds' second typological argument is harder to dispute. Greenberg's Sixth Universal says that all languages with a VSO order also have an alternate SVO order. The alternations between SVO and VSO would be entirely arbitrary under a flat structure analysis. However, if VSO is derived from SVO, then the correlation between the two orders is direct: SVO alternates are simply the cases where the verb-fronting rule has failed to apply.

Greenberg's universal number 12 is: "If a language has dominant order VSO in declarative sentences, it also has dominant order SVO in questions."

It should be noted, as an aside, that in fact Anderson and Chung are not arguing against a flat structure representation of VSO languages. Instead, they are arguing for a model, like that of Relational Grammar, that distinguishes subjects from objects as a primitive of the grammar, rather than trying to derive these relations from linear order with respect to the verb.

Tomlin (1984) claims that 46.8% of the world's languages are SOV, 43.6% are SVO, and 9.6% are VSO. Emonds (1973) notes that VSO languages are much rarer than SVO languages. This, he claims, follows directly from the fact that VSO order is always derived, and SVO is a base order; the more derivation, he claims, the rarer the word order type. Woolford (1991) points out that given our current assumptions about V to INFL movement in SVO languages such as French (cf. Pollock 1989), such an argument cannot hold, since many SVO languages also have derived word orders. She accounts for the relative rarity of VSO by the fact that there are simply more ways to derive SVO than VSO (cf. Emonds' observation that VSO order alternates with SVO order), so VSO appears to be more frequent than SVO in simple sentences. Emonds' second typological argument is harder to dispute. Greenberg's Sixth Universal says that all languages with a VSO order also have an alternate SVO order. The alternations between SVO and VSO would be entirely arbitrary under a flat structure analysis. However, if VSO is derived from SVO, then the correlation between the two orders is direct: SVO alternates are simply the cases where the verb-fronting rule has failed to apply.

Greenberg's universal number 12 is: "If a language has dominant order VSO in declarative sentences, it also has dominant order SVO in questions."
In other words, in VSO languages, complementizers—especially interrogative ones—and frequently inflectional elements as well are initial in their clause. Emonds correlates this property to what he considers to be the cause of verb movement in VSO languages.

Foreshadowing much later work, he claims that verb fronting is due to some morphological feature of the Complementizer head. He bases this on a principle he attributes to den Besten (1981):

"All instances of movement to a pre-subject position by a grammatical transformation are attraction to a sentence initial Comp."

Given this type of principle, the strong correlation between VSO order and clause initial complementizer particles is obvious: VSO order is caused by the clause initial particles. If we were to have a base VSO order, then the correlation between the order and clause initial particles would be mysterious; there would be no direct link between VSO order and clause initial particles.

Now turning away from typology, a great body of empirical evidence has surfaced showing that many VSO languages do not have a flat, underived VSO order. In a great many languages, there are sequences of untensed verbs or participles and objects that function as syntactic constituents, reminiscent of Verb Phrases. McCloskey (1983a) shows how participles and objects function in Irish, which is a prototypic VSO language. The constituent consists of the progressive participle and object (bold-faced in the sentence below):

4) Tá na teangeolaí ag ól an beorach
   Be.pres the linguists prog drink the beer-gen
   "The linguists are drinking the beer"

These sequences obey several standard tests for constituency in Irish. Only maximal projections may be clefted, and more specifically only one maximal projection may be clefted at a time. For example, a direct object and an indirect object may not be cleft together:

5) *[Ull] [don ghasúr] a thug sé
   apple to-the boy  wh gave he
   "It was an apple to the boy that he gave"

In contrast, the progressive participle and direct object can be clefted together:

6) Má's ag cuartughadh leanbh do dhearbhrathra
   if+C prog seek child your brother
   "If it is seeking your brother's child that you are ..."

(McCloskey 1983a: 14)

Similar facts are found in Breton:

7) Lenn eul levr brezhoneg a ran bembez
   to-read a book Breton do-1sg everyday
   "Read a Breton book is what I do everyday"

(Anderson and Chafe 1977: 22)

and in Welsh:

8) Gweld y ci y mae'r dyn
   See the dog be-the man
   "It is seeing the dog that the man is ..."

(Sproat 1985: 178)

McCloskey also notes that the participle and object can be the focus of the only 'only' particle, an honor reserved only for constituents in Irish (McCloskey 1983):

9) Ní raibh mé ach ag déanamh grinn
   Neg be.past I only prog make fun
   "I was only making fun" (McCloskey 1983a: 20)
There thus seem to be ample examples of VP-like constituents in VSO languages, lending strong support to the idea that VSO order is derived from some structure that has a VP constituent.

Driving the final nail into the coffin of flat structure for VSO languages is evidence concerning the relative prominence of subjects and objects. In flat structure, subjects and objects are sisters to one another, as is seen in (2), repeated here as (10):

(10) a) Chonaic Seán agus Máire lena chéile
   Saw     John and Mary  with. their other
   "John and Mary saw each other"

b) *Chonaic lena chéile Seán agus Máire
   Saw     with. their other John and Mary
   "Each other saw John and Mary"

Similar effects are seen in Niuean, as discussed in Woolford (1991):

(11) a) Fana  n-e          ia    a      ia  ni   neafi
    shoot empf-erg he abs him refl yesterday
   "He shot himself yesterday"

(Seiter 1980: 78)

If the object and the subject were sisters as predicted by the structure in (10), then we would expect this to be a Principle B violation: the subject pronoun could be c-commanded and bound by the object. Since the sentence is grammatical, it follows that the object and the subject pronoun are not both directly dominated by the same node. Choe (1987) discusses similar data in Berber:

(12) a) Chonaic Seán agus Máire lena chéile
    Saw     John and Mary  with. their other
    "John and Mary saw each other"

b) *Chonaic lena chéile Seán agus Máire
    Saw     with. their other John and Mary
    "Each other saw John and Mary"

Similar effects are seen in Korean as discussed in Watanabe (1991):

(13) a) Chonaic Seán agus Máire lena chéile
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    Saw     with. their other John and Mary
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Because of the evidence we have reviewed so far, we would expect examples of VSO order to be derived from some structure that has a VP...

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Given that we expect VSO order will be on structures that are dominated in the same way, we can then reason that each structure that has a VP constituent will have the same properties as the VSO order example we just looked at. If we assume that the structure has a VP, then the subject and the object must be siblings. This is because the subject and the object must both be derived from the same node. Since the sentence is grammatical, it follows that the subject and the object must be siblings.

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11) a) *y-utu-tj wrbaj proj 3ms-hit-himj boy-nomj
   “The boyj hit himj” (principle B)

b) *y-utu ixfnnsj arbaj 3ms-hit himselfj boyj
   “himselfi hit the boyi” (Principle A and C)

c) *y-utu pro i ibbas wrbai 3ms-hit pro father boy
   “hei hit the boyi’s father” (Principle C)

Sproat (1985) presents evidence from parasitic gaps in Welsh that shows the same type of effect: subjects and objects cannot be sisters in Welsh. Chung (1983) points out that in flat structure, in contrast to traditional [S NP VP] structures, both the subject and the object are properly governed by the verb. Thus we do not expect any subject/object asymmetries with respect to processes and constraints which refer to proper government, such as the ECP. For example, subject extraction in Chamorro, unlike English, is allowed to violate the that-trace filter:

14) Manu na katta sinangani hao as Juan na ginin i chi'luña?
   which L letter  INFO.Pass.tell you Obl Juan that from the sibling-agr
   “Which letter did Juan tell you that was from his sister”

11See, however, Woolford (1991) for a discussion of Sproat’s arguments.

12In particular, Chung was thinking of the lack of that-trace effects and Sentential Subject Condition violations in VSO languages. She later develops an alternate theory of the lack of these effects not based on government of the subject position by the verb (Chung 1990).

Simplifying somewhat, Kayne (1983) argues that the contrast between parasitic gaps in subjects and those in objects seen in (16) follows from the proper government restriction on the ECP, which English is supposed to license, but which Welsh is not. Welsh does, however, show parasitic gaps in a flat structure VSO language.

13See Massam (1994), however, for the speculation that such predictions could also be made in non-flat structure VSO languages, provided the subject is VP internal and is thus properly governed by lexical material from the trace of the verb, e.g., in sentences like (17):

17) a) *Here are the books [which they bought ei without knowing whether it would be a good idea.
   b) ?Here are the books [which they bought ei without knowing whether it would be necessary for them to read ei]

The ungrammaticality of sentence (15a) follows from the fact that the gap within the subject NP of the most embedded clause is not properly governed. In contrast, the parasitic gap in sentence (15b) is in a governed object position, accounting for its improved acceptability. In a flat structure VSO language, if both the subject and the object are governed by the verb, we expect no such contrast. Sproat shows that this is false; Welsh does show contrasts in its licensing of parasitic gaps parallel to those in (15) above.
b) ?Dyma'r llyfrau [a brynasant hwy [ei] [heb wybod os byddai rhaid iddynt [darllen [ei]]]]

"Here are the books which they bought without knowing whether it would be necessary for them to read."

A gap embedded in an object in Welsh is noticeably better than one in a subject position. This kind of contrast is puzzling in a flat structure approach to VSO languages, if we assume that differences between subjects and objects are structurally defined, since both subject and object should be equally governed by the verb and its inflection.

Hendrick (1988, 1990) shows similar evidence from Breton and shows superiority effects. Hendrick assumes that superiority effects like (17) follow from the ECP: 17) a) Who said what?
b) *What did who say? (*What said who?)

He assumes (see May (1985) and Pesetsky (1987) for a discussion of superiority effects) that in sentence (17b), the lower "who" argument adjoins to CP at LF to receive its interpretation. This is a violation of the ECP, however, since the trace of this movement is neither lexically nor antecedent governed.

In (17a) by contrast, the object "what" argument, being lower than V, can adjoin to VP for its interpretation at LF, and both traces are properly governed:

19) [cp whoi [IP ti [vp whatk [VP say tk]]]]

The prediction that is made, for a flat structure, VSO language is that both types of wh-movement should be licit, since both argument positions are equally governed by the verb. However, this prediction is not supported by Welsh and Breton.

20) Welsh:
a) Pwy a ddywedodd beth?
  "Who saw what?"
b) *Beth a ddywedodd pwy?
  "What saw who?" (Hendrick 1988)

21) Breton:
a) Piv a lavar petra
  "Who said what?"
b) *Petra a lavar piv
  "What said who?" (Hendrick 1990)

Anderson (1984) presents evidence from Kwakwala (also known as Kwakiutl), a VSO language, that shows clear subject/object asymmetries. Anderson notes that certain rules of Kwakwala morphology are sensitive to subject/object-hood. For example, the possessive marker, which is found both on simple NPs and on the subjects of nominalized embedded clauses, shows clear subject/object asymmetries. Anderson notes that any movement in the middle of words, as in (23), is impossible in Welsh.

22) ÷ax ≥ [-ida b] [yanema] [-x ≥ -is yanema]
  "The mani took hisi game" (Anderson (1984))
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...
Jacaltec’s binding facts seem to indicate that the object does mutually c-command the subject, as would be predicted in a flat structure analysis. As noted in Woolford (1991), an R-expression embedded in the subject NP cannot be co-referent with an object pronoun:

(27) a) Xil [smami naj pel] Øi
   "Peter’s father saw him"
   "*Peter’s father saw him"

This data could be analyzed as a condition C effect (Chomsky 1981) where the object c-commands the R-expression in the subject NP: (28)

S
V             NP             NP
saw        N           NP          him
Det         N'           father
cl           N            Peter

Thus, Jacaltec might well be a candidate for a flat structure VSO language, as Woolford claims. The problem with such an analysis, however, is that Jacaltec does show standard subject-object asymmetries. For example, just as in English, reflexives are not permitted in subject position (Craig 1977). Similarly, only subjects are available for the rule of “Promotion” discussed by Craig. This phenomenon, similar to subject to subject raising, is seen in the following example:

(29) x'iche                   smunla        naj
   asp.abs.3.began erg.3.work    cl
   "He began to work"

This evidence suggests that Jacaltec really does show subject/object asymmetries, and that the government of the R-expression in the subject NP, and resultant condition C effect in (27) might be due to something other than condition C. We claim that perhaps the ungrammaticality of (28) with the coreferent reading is due to a condition B violation on the object pronoun. The R-expression possessor of the subject NP is functioning as the secondary head of the NP’s embedded PP, with the condition B reading due to a condition B violation on the higher NP node. The evidence for this claim is shown below, and further in the next section.

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Note that this kind of head-like behaviour of possessors is found in many languages. For example, Japanese allows passivization of possessor NP (Terada 1991). This kind of analysis is too complex to work out here, but it is more consistent with the other evidence from Jacaltec which suggests that subject/object asymmetries do occur in the language. Aissen (forthcoming) presents a different analysis of these facts. She claims that they are not due to the binding theory at all. Instead, she claims that they are due to effects of obviation, where the head of the genitive (father) is forced to be marked as an obviative, which in turn is incompatible with a subject position. Under both our and Aissen’s analyses, these facts cease to be evidence in favor of the flat structure approach.

A.3 Subject Lowering

Let us now turn to another early proposal for deriving VSO order, that of subject lowering proposed in Choe (1987) for Berber and Chung (1990) for Chamorro. Choe (1987) argues that a language like Berber derives VSO when the subject NP lowers for case reasons from its base position in the specifier of IP to a position adjoined to the verb:

$$IP \text{ Subj} \ I' \ I \ V \ Obj$$

She claims, following Sproat (1985), that VSO languages are distinguished from SVO languages in terms of a parameter for their case assignment direction. She claims that all VSO languages follow the following principle:

The Strict Rightward Case Assignment Principle

Case is assigned strictly rightwards (Choe 1987: 127)

In sentence (33) below, we see two crucial pieces of evidence for her approach. First, there is an inflectional element, separate from the verb, which appears before both the verb and the subject.

Second, observe how the agreement marker on the verb is rightward of the subject. This kind of preverbal inflection is found in almost all VSO languages. In conclusion (35) below, we see two crucial pieces of evidence for her approach. First, there is an inflectional element separate from the verb which appears before both the verb and the subject. Second, observe how the agreement marker on the verb is rightward of the subject. This kind of preverbal inflection is found in almost all VSO languages.

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These facts seem to be evidence in favor of the subject approach. Because the subject NP lowers for case reasons from its base position in the specifier of IP to a position adjoined to the verb, we have a language like Berber which follows the rightward case assignment direction. This claim is supported by the data from SVO languages, following Sproat (1985), where VSO languages are distinguished from SVO languages.

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Choe presents two independent pieces of evidence in favor of this type of approach. First, she notes that unlike most languages, Berber shows verb-subject idioms, and verb-object idioms are very rare:

a) T-utu tfacccit arba
   3fs-hit toe-stub the boy"The boy stubbed his toe"  (lit.  "the toe-stubbed hit the boy"

b) T-utu tenzi mucc
   3fs-hit sneeze cat"The cat sneezed" (lit "the sneeze hit the cat"

c) y-fergh wadu i wajjarinw
   3ms-crooked wind to my neighbor"My neighbor is miserable" (lit "the wind crooked to my neighbor"

(Choe 1987: 134)

Second, she points out that all subjects in Berber are in the construct state (see Guerssel (1987) for more discussion of this construction); a form found usually only in nominal or prepositional complements in other languages (such as Hebrew and Irish). Examples of the construct and free state forms of some nouns in Berber are seen in (36):

a) 
   Free state Construct State
   t-a-mttut-t t-emttut-t'woman'
   a-ryaz w-ryaz'man'
   t-a-brat-t t-brat-t'letter'

b) y-uzn wryaz tabratt i temttutt
   3ms sent man.cs letter.fs to woman.cs"The man sent the letter to the woman"

c) ajdid wryaz
   bird   man.cs"The man's bird"

She claims that the construct state only appears when the N is the sister of a [-V] element. Given that Agr is [+N,-V], the construct state is expected in a configuration where the subject NP is the sister to the Verb+Agr.

Before turning to evidence against this approach, we would like to discuss the other paper that has suggested a subject lowering approach to VSO order: Chung (1990). Like Choe, Chung assumes an IP generated subject; she assumes, however, that parallel to many unaccusative predicates, the subject in these is a derived one rather than an underlying noun phrase. She claims to have found two key sentences in VSO languages which she suggests are examples of subject lowering.

Example 1:  "He is not eating fish"
   Neg-imp 3fs-eat Tifa fish"Tifa is not eating fish"

She claims that since the verb is to the right of the inflectional particle, and that this inflectional particle is independent from the verb, that no raising has applied and that the verb and INFL are in their base positions. She assumes that Agr is the element that assigns nominative case, and since Agr is shown on the verb and not the inflectional particle, it is the V+Agr that assigns nominative case to the subject. The only way for the subject to receive nominative case, then, is to lower and adjoin to the V+Agr head.

The claims thus far have been to show that in certain languages such as Japanese, the subject in VSO order is not the derived subject of the verb but rather an underlying noun phrase. The subject is moved from its initial position in the verb phrase to the V+Agr head. This movement is illustrated in (8):

(8) a) T-Tinf sound
   +nominative case
   The sound bite
b) T-Tinf bite
   +nominative case
   The bite sound

c) T-Tinf bite
   +nominative case
   The bite sound

These examples are from Japanese. They show that the V+Agr head takes the subject in VSO order.

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Other Austronesian languages, the underlying order of Chamorro is IVOS and the subject lowers leftwardly to the V, as seen in (36):

\[
\begin{align*}
\text{IP} & \rightarrow \text{I' NP} \\
\text{I} & \rightarrow \text{V NP} \\
\text{V} & \rightarrow \text{object}
\end{align*}
\]

Evidence for the underlying order of Chamorro, she claims, comes from the word order of sentences with non-verbal predicates. In these sentences, which lack a verbal copula, the non-verbal predicate and its complement are not separated from one another by the subject:

\[
\begin{align*}
a) \text{Ma'estrokku si jose} \\
\text{student} \rightarrow \text{Jose} \\
\text{"Jose was my teacher"} \\
b) \text{Esta un mes i ga'lagu} \\
\text{already one month the dog} \\
\text{"The dog is already one month (pregnant)"} \\
c) \text{I rigalu ginin as nana'hu esti na aniyu} \\
\text{the present from mother.1s ring} \\
\text{"This ring is a present from my mother"}
\end{align*}
\]

Given that subjects follow complements to non-verbal predicates, she extends the analysis to verbal predicates. It should be noted that the assumption that the order Predicate - Complement - Subject appears with non-verbal predicates does not necessarily imply an underlying order. For example, consider (38) below from Irish, where a non-verbal predicate and its complements and modifiers all precede the subject.

\[
\begin{align*}
\text{38) Is \[NP \text{amhrán} \[cpaL \text{bhuailfidh an píobaire} \](é) "Yellow Sub"} \\
\text{C song \rightarrow COMP play.fut. the piper (agr) } \\
\text{"'Yellow Submarine' is a song which the piper is going to play"}
\end{align*}
\]

However, as shown by McCloskey (1983a) there is overwhelming evidence that Irish is SVO underlyingly. There is no reason to assume that non-verbal predicates - complement - subject order is not itself a derived order and it need not be taken to support VOS order, as it can be derived by other means. See Chung (1999) and Doherty (1996) for extensive discussion of these orders.

Chung claims that evidence for the subject lowering approach to VSO comes from coordination. Additional evidence for a subject lowering approach to VSO comes from coordination.

\[
\begin{align*}
a) \text{Ma-fa'tinas i statue nu siha i famalao'an ni kle} \\
\text{Infl-make the statue obl them the women obl clay} \\
\text{"The women made the statues of themselves with clay"} \\
b) \text{Ma-faisin tä'lu otru na kuestión si Francisco ni ma'estru} \\
\text{Infl-pass.ask again other L question Francisco obl teacher} \\
\text{"Francisco was asked another question by the teacher"} \\
c) \text{Ha-apápasi i lalahi si Carmen sinku pesus} \\
\text{Infl-pay.prog the men Carmen five dollars} \\
\text{"Carmen is paying the men five dollars"}
\end{align*}
\]

Additional evidence for a subject lowering approach to VSO comes from coordination. Chung notes that Chamorro requires that co-ordinated elements be identical constituents. Interestingly, it appears that you can have the subject of two co-ordinated VPs appear between the verb and the object of the second one.
She claims that such sentences can only follow from analysis where the subject starts in the specifier of IP, where it discharges its function as "subject" of both of the conjoined VPs, then lowers and adjoins to the VP.

There is some empirical evidence in Chamorro against such an approach. As noted by Woolford (1991), the position of VP adverbs in Chamorro reported by Chung (1983) is inconsistent with a subject lowering approach. Consider the sentence in (42):

\[ \text{Ma'pus \ esta \ si \ Juan \ pära i \ tenda} \]

"Juan has already gone to the store"

The VP adverb is between the subject and the verb: the regular position of such adverbs in Chamorro. Given that adverbs usually adjoin to maximal categories, the positioning of this adverb between two heads that are supposed to be head-adjoined to one another is, to be blunt, unlikely:

\[ \text{VP} \rightarrow \text{V} \rightarrow \text{Subj} \rightarrow \text{Obj} \]

It is much more likely that the adverb is in fact VP adjoined, the subject is VP internal and that the verb has somehow raised outside of the VP. Given that VP adjoined adverbs appear medially in supposed verb-subject adjoined structure, we think there is fairly strong evidence against such an approach. The same sort of facts are true of Modern Irish.

It should be noted, however, that Irish does not allow any other type of adverb to appear in this position. For example, McCloskey (1983b) notes that the following are strongly ungrammatical:

\[ \text{Chonaic \inné \ na \ gasraí \ capall \ mór \ bán \ ansin} \]

This suggests that a subject lowering approach is certainly untenable for Modern Irish.

Fassi-Fehri (1993) provides evidence from object enclisis in Standard Arabic, a VS order language, which also argues against a subject lowering approach. In Arabic, object clitics appear attached to the verb:

\[ \text{d\araba-hu \ r-rajul-u} \]

"The man beat him"

Under a subject lowering approach we might predict that object clitics could adjoin to the subject:

\[ \text{VP} \rightarrow \text{V} \rightarrow \text{Subj} \rightarrow \text{Obj} \rightarrow \text{Clitic} \]

This would result in an ungrammatical order for clitics:

\[ \text{d\araba \ r-rajul-u-hu} \]

"The man beat him"

This then also provides evidence against a subject lowering approach cross-linguistically.
All aesthetic objections to lowering aside (e.g. Chomsky 1992, Kayne 1994), there is also a strong theoretical problem with such approaches. As noted by Fassi Fehri (1993), this has to do with the status of the trace left behind by the subject lowering. In both Chung and Choe's story, this trace lacks a governing antecedent; it is higher in the tree than the element it is a trace of. Both Chung and Choe have answers to the problem, but they both appear to us to be somewhat ad hoc. Choe claims that the chain formed by the lowered subject and the trace comes into the syntax pre-formed before D-structure, thus is not subject to D-structure binding conditions. This kind of approach is clearly untenable in a system like Chomsky (1995, 1993) where all such constraints need be phrased as output conditions. Independent of this, however, the coherence of a notion like "do the movement before you get into the syntax" seems dubious to me. It is logically a contradiction; one is expected to do the syntax for syntactic reasons, before you enter the syntax, so that you can escape a constraint on the syntax. Chung (1990) seems to have a more coherent account. She claims that the trace of the movement is not a true trace, but a null expletive, which forms an expletive-subject chain. Again this seems designed simply to allow an analysis inconsistent with otherwise well-motivated constraints to escape these same constraints.

These theoretical objections aside, however, it is at least plausible that some languages, like Chamorro and Berber, might make use of a subject lowering mechanism. Such an approach, unfortunately, is not available for languages like Irish, however. Elizabeth Pyatt has pointed out to us that given a verb plus adjoined subject constituent, we expect to be able to cleft VS sequences, (or at least VSO sequences). This is clearly false, as noted above, since Irish never allows VS sequences to be clefted, but does allow VO ones to undergo such operations. This constitutes strong evidence against a subject lowering analysis of Irish.

A.4 OBJECT POSTPOSING

The final possibility for deriving VSO comes from taking an appropriate object lowering approach. The subject of the second clause is subject to a spreading subject movement, which brings the subject to the same position as the subject of the first clause. This kind of approach was first proposed by Carnie and Harley (1992). Our apologies for not providing a word-by-word gloss, this is due to the fact that Carnie and Harley do not provide a word-by-word gloss, which makes it difficult to compare their analysis with our own. They note that the subject of the second clause is subject to a spreading subject movement, which brings the subject to the same position as the subject of the first clause. This kind of approach was first proposed by Carnie and Harley (1992).
"The man picked three ears of corn" (data from England)

Reasoning that those languages which allow both orders represent an intermediate step between the languages that allow only one, she points out that these can serve as the test case for determining what order was more basic in Proto-Mayan. Since VSO is more restricted, and only appears in one specific environment, then VOS must be the more basic form. She claims that there is a sentence-final "reordering" position for complex, animate or definite objects. VSO order then is derived by a rule which moves objects from VOS to a final position.

More recently, Chung (1996) has proposed that VSO order in Maori is also derived via object (or more precisely complement postposing). Like Chamorro (see section A.3 above), Maori non-verbal predicates generally take the form:

49) [predicate + complement] subject.
50) He tamaiti pai i te kura ia
   A    child   good at the school she
   "she is a child who is good at school"

Chung takes this as evidence that Maori is underlyingly [V O S] in structure (as she takes similar evidence in Chamorro). Chung observes that Maori allows a different order in certain non-verbal predicate constructions. These are all of the form where the predicate and its complement are separated by the subject:

51) He whangai a Hukarere na Hata
   A    foster.child pers H.    of Hata's
   "Hukarere was a foster child of Hata's"

She takes this to be the output of a complement postposing rule:

52) [Pred O]S

Given that the basic word order of Maori is VSO, she concludes that this rule derives all instances of SO ordering in the language.

There is, unfortunately, a serious empirical problem with Chung's basic assumption that VOS is the underlying order of Maori. Recall from above that this claim is based upon the fact that Predicate-Complement Subject order is standard with non-verbal predicates in Maori. However, notice that in Modern Irish, the same is also true.

53) Is NP amhrán [cpaL       bhuailfidh an píobaire 
   C   song           COMP play.fut.    the piper       (agr)
   "'Yellow Submarine' is a song which the piper is going to play"

Under Chung's reasoning, this should mean that Irish is also underlying VOS. There is absolutely no evidence to support this. Irish seems straightforwardly to be underlyingly SVO, as discussed in the main body of the work. Both Carnie (1995) and Doherty (1996) claim that this word order is a derived one (Carnie by reanalysis and then head-movement, Doherty by movement of the VP to a specifier position). Similar sorts of analyses could be equally applied to the Maori data. The basic claim then that the order in (51) necessarily represents an underlying one does not stand up to scrutiny, and this assumption is crucial to Chung's object postposing analysis.

A.5 VP REMNANT TOPICALIZATION

A relatively new approach to VSO order has emerged in recent years in part in response to Carnie's (1995) analysis of sentences like (53) above. Despite the fact that these sentences seem to have fronted a phrasal element, Carnie (1995) claims that these sentences involve head-to-head movement nonetheless (and are allowed to do so via an impoverished theory of phrase structure). Doherty (1997), Massam (forthcoming), Lee (forthcoming), Freeze and Georgopoulos (forthcoming), and Travis and Rackowski (forthcoming) all have converged upon an alternative theory. All these works claim that [N O] S order in verb initial languages is due to a kind of VP remnant, which is derived by a rule which moves objects from initial position in verb initial languages. This work is a departure from previous theories in which verb initial languages are accounted for by the position of the verb. The new theory is more flexible and allows for a more general kind of remnant.

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\[ \text{Carnie and Harley Clausal Architecture} \]

\[ \text{Appendix November 22, 1998} \]
due to two consecutive movements. First a shifting of the object out of the VP, then subsequent fronting of the VP remnant (containing only the V) via VP topicalization. Have chosen not to adopt this approach due to the fact that Irish VSO seems to be subject to head-movement constraint effects. For example, as discussed in the main body of the text, main verbs don't raise, when an aspectual head intervenes:  

54) Tá mé ag scriobh an abairt
   Am I ing write the letter

A.6 SUMMARY

In this short appendix, we've attempted to show that all the logical possibilities for deriving VSO order other than verb movement are untenable at the very least for Modern Irish. There is extensive evidence for VPS in a variety of VSO languages, as well as substantive evidence of Subject/Object asymmetries. However, for other VSO languages as well, there is extensive evidence for VPs in a constituent order other than verb movement and multiple analyses of the very least for Modern Irish order other than verb movement are untenable for Modern Irish.

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