

JIM McCLOSKEY

## SUBJECTHOOD AND SUBJECT POSITIONS

## 1. INTRODUCTION

The notion of “subject” is fundamental in Aristotelian logic and in almost all Western traditions of thinking about philology and grammar.\* It is also fundamental to certain strands of thought within the broad tradition of generative grammar – notably Relational Grammar and Lexical Functional Grammar. However, in the tradition which extends from the “Standard Theory” through the “Extended Standard Theory” to “Principles and Parameters Theory” and then to the “Minimalist Program”, the notion of subject plays no formal role at all. Not only is “subject” not a primitive term in these theories, but in their most recent instantiations it is not even clear that there is any derived or defined notion which captures the traditional intuition of what a subject is (as there was, for instance, in the theory of Chomsky 1965). What we have seen, in a sense, is a progressive deconstruction of the traditional category “subject” so that the properties which are supposed to define it are distributed across a range of distinct (but derivationally linked) syntactic entities and positions. This theoretical eccentricity may turn out to have been foolish or wise, but it is certainly grounded in some of the deeper methodological instincts of generative grammar. My purpose in this contribution is to consider some recent proposals about the syntax of subjecthood, to try to place those proposals in a broader theoretical and historical perspective, and to evaluate their plausibility at least in a tentative way.

## 2. THE INTUITION

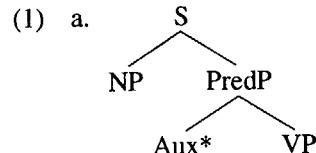
What might persuade someone that subjecthood is theoretically central? The answer, in part, must be that an impressively broad range of disparate phenomena seem to require reference to the notion.<sup>1</sup>

- (i) The subject is the characteristic bearer of certain kinds of semantic roles (prototypically AGENT and perhaps also CAUSE and, more controversially EXPERIENCER).
- (ii) The subject is more prominent than any other argument of the main verb. Its prominence is manifested in a variety of phenomena:
  - a. the subject may bind reflexive and reciprocal pronouns appearing in other argument-positions but may not itself (if it is a reflexive or a reciprocal) be bound by elements in other argument-positions.
  - b. the subject, at least in the typical case, takes wider scope than an element in any other argument-position.

- c. a subject, if it has the right semantic properties, licenses a Negative Polarity Item in some other argument-position. A Negative Polarity Item in subject-position cannot, however, be licensed by an appropriate element in another argument-position.
- (iii) Subjects are typically formally marked – positionally and/or morphologically. Morphological marking may be on the subject itself (in the form of a case) or on the main inflectional element of the clause (in the form of agreement morphology).
- (iv) It has sometimes been claimed that every clause must have a subject. This is not obviously correct, but it is clearly correct in some broad sense for some languages. There is no other argument-type or syntactic position for which this claim can be made with even remote plausibility. There are no languages, as far as I know, for which it has ever occurred to anyone to claim that every clause must have a direct object, or an indirect object or a prepositional complement or whatever.
- (v) Subjects are almost always nominal. There is a well-known set of difficulties for this general claim (subject clauses if they exist, cases in English such as *Under the sink would be a good place to hide*, locative inversion constructions) but the general fact is so striking that it cannot be ignored. It is not remotely plausible to claim for any other syntactic position that it must be occupied exclusively by a phrase of a particular syntactic category.
- (vi) Subjecthood is central in the system of promotion and advancement of nominals (to use the terminology of Relational Grammar). That is, there are many grammatical operations which create surface subjects by promoting nominals from other positions or ranks (passive, subject-to-subject raising, unaccusative advancement, *Tough Movement* and so on). These operations exhibit an impressive constancy across languages – in the way that they function and in the constraints that they are subject to.

### 3. A LITTLE HISTORY

In the *Aspects* framework which defined much work of the 1960's (Chomsky 1965), there is in fact a single position which is crucially implicated in all six of the identifying phenomena listed above. Given a phrase structural analysis of the sentence like that schematized below:



the NP-daughter-of-S position is the crucial position. Although it is anachronistic to speak of "semantic roles" in connection with this theory, it is true that the NP-daughter-of-S position is the position in which the AGENT argument of transitives and the EXPERIENCER argument of perception verbs and so on were assumed to appear at deep structure (and in which the "selectional restrictions" associated with assignment of such roles were enforced). This is also the position crucially implicated in the various operations which determine morphological properties of subjects – case and agreement especially (property (iii)). As for the question of prominence (property (ii)), following the work of Ross and of Langacker in the late 1960's (Ross 1969a, Langacker 1969), and that of Reinhart in the late 1970's (Reinhart 1976, 1979, 1983) the phrase-structural notion of command became, and has remained, the fundamental measure of relative prominence within the tradition we are discussing here ( $\alpha$  is more prominent than  $\beta$  if  $\alpha$  commands  $\beta$  and  $\beta$  does not command  $\alpha$ ). There is a variety of phrase structural relations in the "command" family (for general discussion see Barker and Pullum 1990), but all<sup>but one</sup> of them guarantee that the NP-daughter-of-S will be more prominent than any other argument-position. If the phenomena for which prominence is crucial are analyzed in terms of command relations, and if the "subject" relation is simply the phrase structural relation "NP-daughter-of-S", then the prominence of the subject is guaranteed.

The obligatory presence of a subject, and its obligatorily nominal character (properties (iv) and (v)) were simply stipulated in the initial phrase structure rule:

$$(1) \text{ b. } S \rightarrow NP \text{ PredP}$$

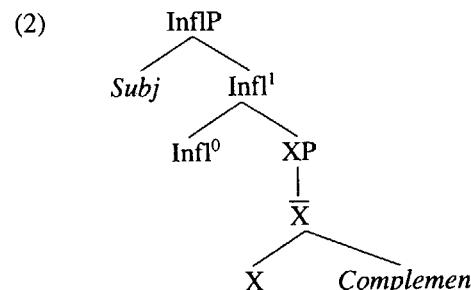
As for the sixth property (the centrality of subject position in the operation of relation-changing rules of promotion), the relevant transformations (passive, subject raising and so on) were simply formulated so as to move nominal phrases into the NP-daughter-of-S position.

This conception of subjecthood is traditional and conservative in the sense that it associates subject properties with a unique syntactic position. It is radical in denying that the concept of subjecthood is a primitive of grammatical theory, but in maintaining rather that it is a derivative notion defined in terms of the primitives of phrase structure theory. It was this part of the *Aspects* conception of subjecthood that was to become controversial – in work of the 1970's and 1980's especially. One of the central issues that arises here is the issue of cross-linguistic generality. Assuming that one wants a way of referring to subjecthood that is invariant across languages, it is at least unclear that the phrase structural understanding provided by the *Aspects* theory is adequate. In the development of Relational Grammar and of Lexical Functional Grammar, it was argued that the syntactic and morphological encoding of subjecthood varies considerably across languages

and language-types (pre-verbal position in English, immediate post-verbal position in Irish, final position in many Mayan languages, nominative marking in some languages, absolute or ergative marking in others), but that the other properties are largely invariant across languages. One will want to say, for instance, that it is a general property of subjects, no matter how they are morphologically signaled, that they may bind reflexives or reciprocals in other argument positions, but that they may not themselves be bound from lower positions. One will also want to say with full cross-linguistic generality that passive creates derived subjects, that subjects of embedded clauses are raised to be subjects of matrix clauses under certain conditions and so on. From this perspective, it is natural to conclude that the *Aspects* understanding of subjecthood is irredeemably English-specific, confusing the grammatical encoding of the relation with the relation itself. From this position, it is in turn a short step to the assumption that "subjecthood" is properly construed as a primitive of the theory of grammar, and that the cross-linguistic generalizations governing passive, unaccusative advancement, raising and so on make direct reference to that notion.

This was not, of course, the conclusion drawn within the EST tradition. The strategy pursued there was to develop a theory of the subject-position and a theory of how that position determined subject properties, which was general enough to have some cross-linguistic credibility. There were a number of distinct analytical strands which made up this effort.

The development of the IP-model of sentence-structure in the early 1980's was one important element. It provided a model of clausal structure of sufficient abstraction and flexibility that it could lay some plausible claim to cross-linguistic generality. The analysis involved two crucial elements. The first is the idea that the sentence is universally a projection of inflectional information (tense, person, number and so on) and the second is that it is a regular X-Bar projection. This conception was flexible enough to handle clauses built around both verbal and nonverbal predicates (many languages have tensed non-verbal clauses; these could now be understood as cases in which Infl took a complement other than VP), and it brought with it the restricted flexibility of X-Bar theory to account for the known range of attested clause-types. The inflectional head could be initial or final in its projection; its specifier could be initial or final. The inflectional element (fused with the head of its complement in many cases) could move to the left across the subject to yield predicate-initial or verb-initial orders. What was constant across cases and types was the X-Bar notion of "specifier of the inflectional projection." This was the new unitary notion of subject-position.



This conception represented a clear advance over earlier treatments. It simultaneously eliminated an anomaly in the theory of phrase structure (the status of the category S) and provided a framework in which variation in clause-type across languages could be reasonably accommodated. The view of clausal organization that it embodies (that it consists of a lexical layer embedded within an inflectional layer, both of them conforming to the architectural principles of X-Bar Theory) made available something like a theory of what a clause could be.<sup>2</sup>

Since the inflectional layer, furthermore, is held to properly contain the lexical layer, any nominal which occupies the specifier position of the inflectional projection will command all positions and material within the lexical layer. Since all non-subject arguments were assumed to appear within the lexical layer, the relative prominence of the subject with respect to other arguments is guaranteed.

Furthermore, the development of the theory of thematic relations and its interaction with the theory of movement provided a framework for understanding why promotion to subject has a central place in the grammars of natural languages.

At the core of this theory (developed primarily in Chomsky 1981) is the contention that movement into a position which is assigned a semantic role is impossible. Since complement positions in phrase structure are assumed to be projected from the argument-list associated with a lexical head, they can exist if and only if they are assigned a semantic role. Complement positions are necessarily thematic positions, then, and movement into such positions is impossible in principle. The inflectional projection, however, works differently. It bears inflectional features which must be licensed by being in an appropriately local relation with nominal phrases bearing matching features. The specifier position of IP is, as a consequence, always projected – whether or not a semantic role is assigned to it. This position, then, is uniquely privileged – it is the only potential argument position whose existence is licensed in the absence of semantic role assignment. It is, as a consequence, the only potential argument position which may function as a target for movement. Furthermore, the need to license features of the inflectional head with matching features on a nominal

will typically force either the insertion of an expletive element or raising of a nominal from some lower position.

The existence of NP-movement is thus seen to be ultimately a product of the reification of clausal architecture into inflectional and lexical layers with their distinct properties. A connection is made between the requirement that there be a structural subject (the (second clause of the) EPP) and the existence of raising to subject-position. Both are rooted in the need to license morphosyntactic features by providing them with the nominal phrases that they need in a sufficiently local phrase structural relation. The charge of parochiality is voided in that in this conception no language-specific rules of passive or raising or the like are postulated. In fact, no element or construct in this account is language-specific.<sup>3</sup> The theory provides theoretical grounding for the observed prevalence of operations raising nominal phrases into “subject position” but it entails no reference, direct or indirect, to a theoretically primitive notion of subjecthood.

These were important and innovative developments. The understanding of subjecthood that emerges from them is conservative, however, in the sense that it retains the *Aspects* idea (which is in turn the traditional idea), that there is a unique position in which all the various subject properties are realized. The specifier position of IP, in this conception, is a position in which a range of very different functions is fulfilled. It is the position to which certain classes of semantic roles are assigned (notably the AGENT role), but it is also a position which is crucially implicated in the validation of the morphosyntactic features associated with subjecthood (nominative case on the subject, agreement morphology on the finite verb, and the specification of finiteness for the clause).

#### 4. METHODOLOGY

As well as being in some fundamental sense conservative, the conception of subjecthood embodied in this theory is at odds with some of the central methodological instincts of generative syntax.

It is a truism that in even the simplest sentences of a natural language a single phrase may simultaneously enter into a complex array of overlapping grammatical relationships. To illustrate, consider the web of relations that the pronoun *what* enters into in a simple example such as (3):

- (3)    What did everyone eat?

*What* is an argument (a complement) of the verb *eat* and, as a consequence, is the bearer of a particular kind of semantic role. It is also a bearer of accusative case – in virtue of its relation with *eat* and in virtue of the fact that *eat* is transitive. It is an operator which can be assumed to bind a variable in object position and to enter into a certain scope relation with the element *everyone*.

Since its inception, generative grammar has been driven by the instinct that each such relationship is associated with a canonical position – complements to v occur in a distinctive position (sister of v); accusative nominal phrases occupy a distinctive position (sometimes identified with the complement position in VP, sometimes not); interrogative operators occupy a distinctive clause-peripheral position, and so on. It follows from this overall conception of how syntactic systems work that the pronoun *what* will naturally be assumed to occupy a range of distinct syntactic positions – one canonically associated with each of the grammatical functions and relations that it enters into. If one follows the instinct through consistently, this can only mean that the sentence (3) is associated with a series of representations in which each crucial relationship is encoded structurally in its canonical form. There will be one in which *what*, since it is an internal argument, is in complement position; there will be one, perhaps distinct, in which it is in the accusative position,<sup>4</sup> one in which it is in the operator position and so on. If one then adds to the mix the idea that all of these representations are constructed from the same vocabulary and by way of the same combinatorial processes (i.e. they are all (indexed) phrase structure trees), one arrives almost inevitably at the idea of the transformational derivation and the idea that an element like *what* in (3) occupies a series of distinct but derivationally linked positions.

Given this overall intuition about how grammatical systems work, the idea of a unitary subject position is an anomaly. Fundamental to the idea of a unitary subject-position is the claim that a single position is canonically implicated in a wide array of distinct functions and relationships. It is the nominative position; it is the position reserved for those elements which trigger agreement on the main inflectional element; it is the position in which a certain subset of semantic role-types are characteristically realized; it is a topic position; it is a target for movement; it is the position privileged by the EPP. Given the way in which generative syntax has developed over its now almost forty-year history, it is unsurprising that this clustering of functions should have been broken up and each one associated with a distinct canonical position. It is also unsurprising that the idea of subjecthood as a consequence should have been deconstructed and re-conceived – as inhering not in a single syntactic position, but rather in a sequence of distinct but derivationally linked positions. The development of the Internal Subject Hypothesis in work of the late 1980's can be seen as the working out of this always powerful analytical impulse.

#### 5. DECONSTRUCTION

Viewed in this light, the development of the Internal Subject Hypothesis was in a certain sense inevitable (or at least predictable). This might be why the idea was formulated by many different researchers independently and

simultaneously.<sup>5</sup> What drives most of these proposals is the impulse to separate out the functions of the lexical and inflectional layers. The lexical layer is the phrase structural domain in which argument realization (semantic role assignment) takes place; the inflectional layer is the phrase structural domain in which morphosyntactic features are given syntactic expression and licensed. It has no role in implementing semantic role assignment. All arguments, including the subject, are initially realized within a lexical projection. In many, or perhaps all, languages the nominal which initially occupies the highest argument-position within the lexical projection will bear a series of morphosyntactic features which will require that it raise into the inflectional layer where those features can be licensed.<sup>6</sup> The specifier position of the inflectional projection is thus a derived subject position only, and most clauses will contain not a unique subject position but rather at least a pair of derivationally linked positions, each associated with distinct subsets of the set of subject properties.

Two classes of arguments have been presented for the Internal Subject Hypothesis:

1. Arguments which seek to show that there is a derivational link between a subject in the specifier of IP and a lower VP-internal position. I will use the term "Lower Origin Arguments" for this group of arguments.
2. Arguments which seek to establish that the subject occupies a VP-internal position in audible syntax in certain languages or in certain constructions. I will call these "Lower Position Arguments."

In discussing some of the arguments that have been presented, I will proceed initially as if it were clear that there is just one inflectional projection (IP). This is false, of course. But the move will simplify the expositional task in various useful ways.

## 6. LOWER ORIGIN ARGUMENTS

### 6.1. One

It is a very old observation (see at least Schachter 1976, Williams 1977, Gazdar 1981, Goodall 1987, van Valin 1986) that examples such as (4) appear to be problematical for the view that the derived subjects of passives originate in complement positions within VP:

- (4) a. The girls will write a book and be awarded a prize for it.  
b. Marta asked for red wine and was given white.

On the assumption that such examples involve coordination at the VP-level, they must involve a violation of the Coordinate Structure Constraint

and its associated Across the Board convention for rule application (Ross 1967, Williams 1977, 1978). This is because the subjects (*The girls* in (4)a, and *Marta* in (4)b) must be taken to be base-generated in the specifier position of IP with respect to the left conjunct but to have been moved from complement position within VP with respect to the right conjunct. Since the movement analysis of Passive is otherwise well-supported, this is an uncomfortable paradox.

McNally (1992) and Burton and Grimshaw (1992) independently noticed, however, that the Internal Subject Hypothesis provides a straightforward resolution. If subjects originate in VP and undergo A-movement to the specifier of the inflectional projection, then examples such as those in (4) straightforwardly obey the ATB convention in that the subjects originate inside VP in both conjuncts:<sup>7</sup>

- (5) The girls, will [VP *t<sub>j</sub>*, write a book] and [VP be awarded *t<sub>j</sub>*, a prize for it]

### 6.2. Two

One of the most celebrated arguments in favor of the Internal Subject Hypothesis was developed by Sportiche (1988) and involved the development of a new kind of understanding of the phenomenon of Quantifier Float:

- (6) a. They all must have been drinking wine.  
b. They must all have been drinking wine.  
c. ? They must have all been drinking wine.  
d. ? They must have been all drinking wine.  
e. \* They must have been drinking all wine.  
f. ?? They must have been drinking wine all.

The argument begins by maintaining that *they all* begins life as a syntactic unit in cases such as (6). Given this much, the distribution of the isolated quantifier *all* can be understood if, at a number of points in the raising of the subject from within VP to the specifier position of the highest inflection projection, the pronoun *they* can move on its own (failing to pied-pipe the quantifier, so to speak). The option is available at each step of the derivation, resulting in the multiple stranding possibilities seen in (6). Recent versions of the analysis (Shlonsky 1991, Koopman and Sportiche 1991: 222, Sportiche 1996, Merchant 1996, McCloskey 1995b) have typically assumed that the crucial movement proceeds from the specifier position associated with ~~is~~ *all* or *both*, probably subsequent to an internal movement from the complement to the specifier position of the quantifier (Shlonsky 1991, Koopman 1993, McCloskey 1995b, Merchant 1996). If such approaches are on the right track, then subjects must originate in a lower position than that which they typically occupy – given (7), a position

lower at least than that occupied by adverbs usually assumed to be left-adjoined to VP (Jackendoff 1972).

- (7) a. They must simply all retake the exam.
- b. They've just all taken leave of their senses.
- c. They had barely all finished eating when the waiters began to clear the table.

The analysis is of course controversial. The principal alternative available at present is one according to which the quantifier and the raised DP never form a syntactic constituent, but in which the quantifier has an essentially adverbial function, left-adjoined to some part of the verbal or inflectional projection (Klein 1976, Dowty and Brodie 1984, Kayne 1984, Doetjes 1992, Baltin 1995, Bobaljik 1995 (Chapter Four)). Some versions of this approach (Doetjes 1992 for instance) also include the Internal Subject Hypothesis as a crucial element in the analysis.

But such treatments do not deal gracefully with the agreement shown between the floated quantifier and its associated DP – a regular feature of the construction across languages, and one which is captured straightforwardly on the stranding analysis (for further discussion, see Shlonsky 1991 and especially Merchant 1996). Furthermore, the adverbial analysis has difficulty accommodating the various cases that have been documented of what looks like stranding in complement-positions – cases where it is much more difficult to interpret the quantifier plausibly as being left-adjoined (Giusti 1990, McCloskey 1995b).

If this is so, and an approach like Sportiche's is on the right track, then *all* in the examples of (7) is a visible sign that the subject occupied a lower position at an earlier point in the derivation.

### 6.3. Three

Ladusaw (1988) points out that the relative scope of negation, modals and sentence-adverbs is straightforwardly determined by the surface position of those elements. The following examples (from Ladusaw 1977), for instance, are unambiguous:

- (8) a. A Fiat isn't necessarily reliable.
- b. A Fiat necessarily isn't reliable.
- (9) a. Shelly usually doesn't do her homework.
- b. Shelly doesn't usually do her homework.

These observations in turn suggest that the kind of scope determining mechanisms available for nominal phrases (Quantifier Raising in one widely accepted analysis), which can allow a DP to have wider scope than one would expect on the basis of its position in audible syntax, should not be available to modals, adverbials or to negation (Ladusaw 1988: 487).

This conclusion is natural within the terms of reference of Chomsky (1995: Chapter Four), in which the movement operations that might lead to a mismatch between surface position and relative scope are unavailable in principle to adverbs at least (given the assumption that movement is driven entirely by feature-checking mechanisms and the assumption that adverbs do not participate in such mechanisms).

The following observations also suggest that scope-enhancing covert movement should be unavailable in principle for negation. If there are no S-structure principles (Chomsky 1993, 1995), then the licensing mechanism for negative polarity items must be an *SP* condition. But notice now the following contrast:

- (10) a. Which of the kids doesn't anyone like?
- b.\*Which of the kids does anyone not like?

In (10)a negation is carried along with the raised auxiliary by an overt movement into a position where it commands the subject position and may therefore license a subject Negative Polarity Item. In (10)b, no such overt raising takes place, and the Negative Polarity Item in subject-position is not licensed. To capture the contrast between (10)a and (10)b, it seems that we must assume that covert raising of the negation to a position where it would command the subject must be unavailable. Without this assumption there is no relevant LF difference between (10)a and (10)b. See McCloskey (to appear) for additional relevant discussion.

There are, however, well-known scopal interactions between these elements (modals, negation, sentence adverbs) and the subject. The following examples are thoroughly ambiguous:

- (11) a. At least one player always loses.
- b. Most guests might be late.
- c. Every player didn't score.

These observations pose a dilemma. If there is no equivalent of QR for negation, modals or adverbs, it is not obvious how the subject DP in examples such as (11) can have narrower scope than the other logical operators in the clause. QR is by definition a scope-enhancing mechanism and should only cause the subject to have wider scope than its surface position might lead one to expect. But what is required to account for the ambiguities in (11) is a mechanism that would allow the subject to have narrower scope than one would expect on the basis of its overt position.

The internal subject idea provides a resolution of the dilemma. Its crucial contribution is the idea that the subject is linked in an A-Chain with a lower A-position inside VP. It is, in turn, a well-known property of the relation established by A-Movement that the moved nominal phrase may make its semantic contribution either at the head or at the tail of the A-Chain so formed, as seen most clearly in a case like (12):<sup>8</sup>

- (12) [<sub>IP</sub> [<sub>DP</sub> At least one student], tends [<sub>IP</sub>  $t_j$  to fall asleep in class]].

The ambiguity of (12) is straightforwardly accounted for if the DP *at least one student* may be interpreted either in the matrix subject position (in which it commands the inherently quantificational verb *tends*) or in the specifier of the lower IP (in which it is commanded by *tends*). If this is right, then the ambiguities in (11) are expected – on the assumption that the subject raises from a position in which it is commanded by negation or the modal or the sentential adverb to a position in which it commands them. See Koopman and Sportiche (1991: 222–223) and see especially Aoun and Li (1989, 1993) for a detailed proposal about the mechanism involved, and an extension to a comparative analysis of English and Chinese.<sup>9</sup>

#### 6.4. Four

Another influential argument of the same type (in that it argues for the existence of a subject-trace inside VP and predicate categories more generally) has been advanced by Huang (1993), building on earlier work by Cinque (1984) and Barss (1986). The starting point for the argument is an apparent difference between fronted predicates and fronted arguments with respect to the way in which they interact with reconstruction effects for Binding Theory. The fronted DP argument in (13) contains an anaphor which allows two binding possibilities:

- (13) a. [<sub>DP</sub> Which stories about themselves] did the teachers think that the kids preferred?  
 b. [<sub>DP</sub> Which portraits of each other] did the teachers think that the kids would like best.

In both examples of (13), the anaphor can be bound by either the higher subject (*the teachers*) or by the lower subject (*the kids*). The second possibility arises if Binding Theory possibilities are calculated as if the fronted argument occupied its base position; the first possibility arises if Binding Theory possibilities are calculated as if the fronted argument occupied the intermediate specifier of CP position, much as they are in a case like (14):

- (14) The teachers weren't sure [<sub>CP</sub> which pictures of each other [<sub>IP</sub> would be published in the school paper]].

Predicates seem to work differently, however:

- (15) . . . but [<sub>VP</sub> listen to each other] they say the children won't \_.  
 (16) \*They weren't sure how proud of each other she was.

In (15), the only available reading is the one associated with full reconstruction. That is, the antecedent for *each other* can only be [<sub>DP</sub> *the children*], not *they*. In (16), on the other hand, binding by the matrix subject is

impossible. “Full reconstruction” into the base-position seems to be required and since there is no appropriate antecedent available in the lower clause, ungrammaticality results.

Huang's explanation for this pattern (an explanation also considered by Barss (1986)) is that the range of binding possibilities open to the fronted VP in (15) and the fronted AP in (16) is narrower than that available to fronted arguments. This is because the VP (and the AP) necessarily carries within itself the trace of the subject which has at an earlier point in the derivation been raised out of it – that is, a trace bound by the DP *the children* in (15) or the DP *she* in (16). The presence of this trace (since it is a subject in the relevant sense) closes off the possibility that the anaphor within VP might be bound by other elements.

This has been a celebrated and influential argument for the Internal Subject Hypothesis. Evaluating it, however, turns out to be a delicate matter. For one thing, the facts involving Condition C effects are considerably more complex than those involving Condition A effects (Huang 1993, Heycock 1995, Takano 1995). Heycock cites (17) for instance as showing that the fronted predicate may *not* contain a trace of the raised subject:

- (17) How pleased with the pictures that Pollock, painted in his youth do you think he<sub>j</sub> really was \_?

To the extent that (17) is judged grammatical it represents a severe difficulty for the hypothesis that the fronted adjective contains a trace necessarily bound by *he<sub>j</sub>*. Such indexing should give rise to a Condition C violation of the same type and force as that seen in (18):

- (18) \*He<sub>j</sub> was very pleased with the pictures that Pollock, painted in his youth.

Heycock's counter-proposal is that the crucial contrasts reflect not the distinction between arguments and predicates, but rather the distinction between “referential” and “non-referential” expressions (more exactly between phrases whose interpretations involve quantification over individuals and those whose interpretation does not). She argues that the effects documented by Cinque, Barss and Huang derive from the fact that such non-referential interpretations can be arrived at only if the relevant expressions take narrowest possible scope with respect to all other operators. To provide for such an interpretation, then, the displaced phrases of (15)–(16) must appear in their base positions at LF (at which level the binding conditions are taken to apply).<sup>10</sup>

#### 7. LOWER POSITION ARGUMENTS

It would be impossible to provide a survey here of all the analyses which have as one of their crucial components the idea that the subject remains

inside VP in some language or in some construction. I will consider just four (hopefully typical) cases. The choice I have made among the various candidates reflects in part personal predilection, and in part an effort to present some of the cases that have seemed most persuasive and which have been most influential. In addition, I try to present some cases whose interest and importance seem to me to have been overlooked.<sup>11</sup>

### 7.1. VSO Languages

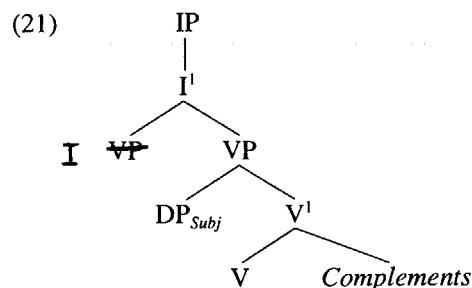
A substantial minority of the world's languages conform to the generalization that their basic word-order is of the type schematized in (19):

- (19) [IP [FIN] V [NOM] DP<sub>Subj</sub> Complements Adjuncts]

Irish is such a language:

- (20) Cheannaigh siad teach ar an bhaile mhór  
bought they [nom] house on the town big  
anuraidh.  
last-year  
“They bought a house in town last year.”

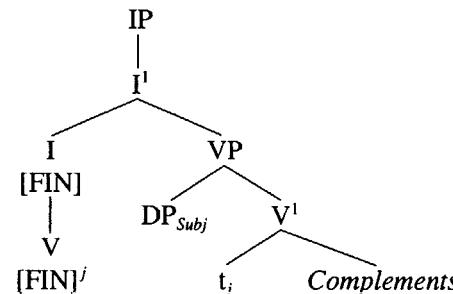
The Internal Subject Hypothesis provides a way of understanding at least some of these languages and clause-types. The hypothesis provides for the existence of schematic structures like those in (21) (in one of its versions at least):



If we combine this fundamental idea with:

- (i) the idea that in many (perhaps most) languages the finite verb raises to I,
  - (ii) the idea that the subject may in some languages and in some constructions remain inside VP,
- then we derive the prediction that languages with the pattern of clausal organization illustrated in (20) and (19) should exist, with the structure seen in (22) (Koopman and Sportiche 1985, 1988, 1991; McCloskey 1991).

(22)



If this way of understanding (20) is right, then there is a major constituent break which separates the fronted finite verb (in I) from the rest of the clause.<sup>12</sup> In McCloskey (1991), I present detailed arguments (on the basis of ellipsis, coordination, right node raising phenomena) that this represents a correct understanding of clausal organization for Irish at least. Under the equivalent of VP-ellipsis, for instance, the subject must obligatorily elide, a contrast with English that follows right away given the structure in (22):

- (23) Ní tháinig muid 'na bhaile anuraidh  
NEG came we home last-year  
ach tiocfaidh – i mbliana.  
but come [FUT] this-year

“We didn't come home last year but we will this year.”

This analysis has a number of attractive properties. It predicts (correctly for all the cases I know of) that the prominence-relations (command relations) among the various argument-types will be the same in a VSO language as in SVO languages of the well-studied European type (the subject will be more prominent than any other argument because it commands every other argument). Nor does the theory of phrase structure need any special clause or provision to provide for the existence and properties of the VSO clause-type. All that is needed is the device of V to I raising – a device for which there exists considerable independent motivation (Emonds 1978, Pollock 1989, Belletti 1990, Shlonsky 1995 among many, many others), and in addition some provision for the possibility that the subject might not always raise out of VP. We will return at a later point to the question of what the property might be that lies behind that possibility (see Kuroda (1988) and Koopman and Sportiche (1991) for general discussion of the issue; see McCloskey (1996) for a proposal about what the specific property might be for Irish). For the present let us simply note that if movement is driven, in part or in whole, by the requirements of morphosyntax (feature-checking in the terms of Chomsky 1993, 1995) then morphosyntactic differences of one kind or another might well be reflected in differences in whether movement is triggered or not.<sup>13</sup>

### 7.2. Negative Inversion in AAVE

Many non-standard varieties of English (notably African-American Vernacular English – AAVE or “Black English”) have emphatic negative constructions like those seen in (24):

- (24) a. Ain’t nothin’ happenin’.
- b. Can’t nobody say nothin’ to dem peoples!
- c. Can’t nobody tag you then.
- d. Didn’t nobody see it.

These constructions have recently been studied by Sells, Rickford and Wasow (to appear) (from which the examples in (24) are taken), building in part on earlier work by Labov et al. (1968). They argue that the construction results from leftward movement of the auxiliary (bearing with it the clitic negation) around the negative subject. Given just this much, it is hard to know whether the inversion here is I-to-C movement (which would reveal little about the position of the subject), or if the negative auxiliary remains in I.

For at least some varieties and idiolects, however, negative inversion applies in contexts which are known to be incompatible with I-to-C movement. Labov et al. (1968), for instance, report (25) as grammatical:

- (25) I know a way that can’t nobody start a fight.

The fact that inversion applies here in a relative clause and in the presence of an overt complementizer suggests strongly that it cannot reflect an application of I-to-C movement, which is quite generally impossible in these circumstances.

In the more recent data collected by Sells, Rickford and Wasow, inversion in the presence of an overt complementizer is usually at least degraded, but the negative auxiliary may still precede the subject in a variety of clause-types which generally forbid I-to-C fronting – in relative clauses ((26)a), and in selected clauses ((26)b).

- (26) a. It’s a reason didn’t nobody help him.
- b. I know ain’t nobody leavin’.

If the auxiliary in (25) and (26) is not in C, then it must occupy some inflectional (head) position lower than C but higher than V. The subject must in turn occupy a position lower than the canonical subject position (specifier of IP). Given unitary Infl, that position must be the specifier of VP.<sup>14</sup>

### 7.3. Imperatives in Ulster English

Alison Henry (1995) describes another kind of nonstandard English (“Belfast English”), whose imperative constructions provide another kind

of “Lower Position” argument. One of the distinguishing features of this dialect is that it has post-verbal subjects in imperatives (alongside the standard English pattern):<sup>15</sup>

- (27) a. Go you away.
- b. Open you that door.
- c. Eat you your dinner.

Henry shows that the positioning of these subjects does not resemble the positioning of post-verbal subjects in Romance (their characteristic position is further to the left than in the Romance cases). She further argues that the imperative verb has raised out of VP (since it occurs to the left of VP-adverbs, as in (28)):

- (28) Read you quickly that book.

Henry in fact argues that the verb raises to C in these constructions, but there exists crucial evidence that the subject remains in a low position. The evidence derives from a kind of Object Shift. In this variety of English, weak object pronouns in imperatives undergo obligatory leftward movement to a position to the left of sentential adverbs such as *always*. The crucial observation now is that in structures involving an imperative with a weak object pronoun, the imperative subject may appear on either side of the object:<sup>16</sup>

- (29) a. Throw us you that rope.
- b. Throw you us that rope.

- (30) a. Bring them you over here to me.
- b. Bring you them over here to me.

Henry argues that in (30)a, in which the subject appears to the right of the raised pronoun, it in fact remains within VP, a claim which is supported by the observation that in this rightward, or lower, position, it must follow adverbs often assumed to be VP-adjoined:

- (31) a. Tell them always you the truth.
- b. \*Tell them you always the truth.

Furthermore, in compound tenses the subject appears after the nonfinite form of the verb, but before complements:

- (32) a. Be picked yous for that team or I’ll be furious.
- b. Have gone you out before I get back.

Henry concludes that subject-raising is optional in these structures, and that the pattern in which the imperative subject appears to the right of a raised pronominal object is one in which it remains within VP (in the specifier of VP, specifically, according to her analysis).

Her conclusions are supported by certain observations concerning a closely related variety – that spoken in west Ulster, and in Derry City particularly. This variety also has post-verbal subjects in imperatives. But it has in addition an invariant imperative marker *gon* (from *go on*). There is some evidence that this element appears in the C-position; the fact that it interacts with VP-ellipsis in the way seen in (33) in particular is suggestive:

- (33) A: Gon make us a cup of tea. B: Gon you.

If *gon* raises from an imperative head position to C, then examples such as (33) are entirely parallel to (34):

- (34) A: He made us a cup of tea. B: Did he?

This suggests in turn that in a case such as (35):

- (35) Gon make us a cup of tea.

the imperative verb does not occupy the C-position. Consider now (36):

- (36) Gon open you that door.

The verb in (36) cannot have raised to C, if that position is occupied by the marker *gon*. Yet the subject remains to its right and therefore presumably below it, consistent with Henry's proposals. The position of the subject within VP in this west Ulster variety is confirmed by examples such as (37):

- (37) Gon make us you a cup of tea.

Here, the weak pronoun *us* has undergone Object Shift as in Henry's analysis. The verb has raised out of VP, also as in her analysis, though not, probably, as high as the C-position, since that is occupied by *gon*. But the subject remains nevertheless below the target-position for Object Shift.

#### 7.4. Transitive Expletive Constructions

One of the most powerful arguments for the internal subject idea has been its ability to make sense of a construction which was known to occur in a variety of languages but which had previously seemed utterly recalcitrant.

The core of the Internal Subject Hypothesis is the claim that there is an A-movement relation between the external subject-position and a lower position in which the subject is assigned its semantic role. Simplifying in a number of senses, let us assume for expository purposes that that internal position is the specifier position of VP. It is known, though, that the A-movement relation often co-exists with an expletive-argument relation, as in the English example in (38) and the French example in (39):

- (38) a. [<sub>DP</sub> Three people]<sub>j</sub> were <sub>t<sub>j</sub></sub> arrested <sub>t<sub>j</sub></sub> at the airport.  
       b. [<sub>DP</sub> There]<sub>j</sub> were [<sub>DP</sub> three people]<sub>j</sub> arrested <sub>t<sub>j</sub></sub> at the airport.

- (39) a. [<sub>DP</sub> Trois]<sub>j</sub> hommes ont été tués <sub>t<sub>j</sub></sub> hier.  
       b. [<sub>DP</sub> Il]<sub>j</sub> a été tué [<sub>DP</sub> trois hommes]<sub>j</sub>, hier.

This being the case, if the Internal Subject Hypothesis is roughly right, then there should be languages and constructions in which the link between external and internal subject positions is mediated not by A-movement but by the presence of an expletive-argument chain with the usual properties. That is, we should find structures like (40) (in a head-initial language):

- (40) [<sub>DP</sub> Exp]<sub>j</sub> . . . Infl [<sub>VP</sub> DP<sub>j</sub> V . . . ]]

where DP is the external argument of an unergative or transitive verb. In a language with V-to-I movement, then, the result should be (41)a for a simple tense, (41)b for a compound tense:

- (41) a. [<sub>IP</sub> Exp<sub>j</sub> <sup>V</sup> [<sub>FIN</sub>] [<sub>VP</sub> DP<sub>j</sub> Complements])  
       b. [<sub>IP</sub> Exp<sub>j</sub> <sup>Aux</sup> <sub>[FIN]</sub> [<sub>VP</sub> DP<sub>j</sub> <sup>V</sup> [-FIN] Complements])

It was realized in work of the late 1980's that this prediction is in fact borne out and that the Internal Subject Hypothesis provided an understanding of certain constructions which had proved resistant in the extreme to theoretical understanding.

A number of researchers (Falk 1989, Ottósson 1989, and especially Vikner 1991 and Sigurðsson 1991) pointed out that the Icelandic construction illustrated in (42) was of exactly the type whose existence was predicted by the Internal Subject Hypothesis:<sup>17</sup>

- (42) a. það dansaði maður í garðinum  
           there danced a-man in the garden  
           "There danced a man in the garden."  
       b. það hefur maður dansað í garðinum  
           there has a-man danced in the-garden  
           "There has danced a man in the garden."  
  
       (43) a. það grefur kona gröf í garðinum.  
           there digs a-woman a-grave in garden-the  
           "There digs a woman a grave in the garden."  
       b. það hefur einhver borðað epli.  
           there has someone eaten an-apple  
           "There has someone eaten an apple."

Such structures (which have come to be known as Transitive Expletive Constructions following Jonas and Bobaljik (1993), Bobaljik and Jonas (1996)) are attested at least in Dutch,<sup>18</sup> in certain varieties of French (Legendre 1989), and in Finnish (Holmberg and Nikanne 1994). Expletive constructions based on unergative verbs are also found widely in the Scandinavian languages (for comparative discussion, see Falk 1989, Vikner 1991).

The fact that the Internal Subject Hypothesis made available a credible analysis for such constructions (which had previously yielded to no satisfactory theoretical understanding at all, despite a great deal of work) was a powerful argument in its favor.

#### 8. A FURTHER DECONSTRUCTION

What do the arguments just surveyed actually establish? In combination, they make a powerful case that the canonical subject position (say the highest specifier position in the inflectional layer) has a derivational connection with a lower position. Given a theory of the clause in which the inflectional system is phrase structurally simple, there is just one A-position specifier in the space between the c-projection and the v-projection. It follows directly in such a system that if the subject does not originate in that position, then it must originate within VP. But of course this unitary view of the internal constitution of Infl has been widely abandoned, under the influence of work by Pollock (1989), Chomsky (1991), Belletti (1990) and many others. And there is at this point in the story a crucial interaction between the Internal Subject Hypothesis and these other developments. If Infl has a complex internal phrase structure, then establishing that the subject originates in a lower position than the canonical subject-position is not the same as establishing that it originates in VP.

What does seem to be true, however, is that one must accept one position or the other – either something like the Internal Subject Hypothesis is right, or else something like the “Split Infl Hypothesis” is right. It is not obvious how the range of observation and analysis surveyed here so far could be accommodated without one assumption or the other being adopted (or both of course). The minimal conclusion forced seems to be that there is no “subject position” – in the sense of a unitary position in which all subject properties are expressed and licensed. Rather, subject properties are distributed over a sequence of derivationally linked positions. In the larger context in which we have framed the present discussion, this is probably the most important conclusion to be reached.

In fact, further investigation has revealed that it is harder than originally thought to find cases in which the subject can be claimed with much confidence to occupy the VP-internal position. The Transitive Expletive

Constructions are emblematic in this regard. Consider again our earlier example:

- (44) a. það grefur kona gróf í garðinum.  
there digs a-woman a-grave in garden-the  
“There digs a woman a grave in the garden.”
- b. það hefur einhver borðað epli.  
there has someone eaten an-apple  
“There has someone eaten an apple.”

Subsequent detailed investigation (Holmberg 1993, Jonas 1992, and especially Jonas and Bobaljik 1993, Bobaljik and Jonas 1996) has established beyond any reasonable doubt that both visible “subject-positions” in (44) (the expletive and its associated indefinite) are in fact outside VP. A number of tests establish this conclusion, but most clearly and convincingly the interaction with Object Shift. One of the firm conclusions that emerges from work on Object Shift in the Scandinavian languages is that the target-position for Object Shift is external to VP (Holmberg 1986, Vikner 1991). It is observed by Jonas (1992), Jonas and Bobaljik (1993), and Bobaljik and Jonas (1996) that the indefinite subject of a Transitive Expletive Construction must appear to the left of this position:<sup>19</sup>

- (45) a. það borðaðu margir strákar bjúgur ekki  
there ate many boys the-sausages NEG  
“Many boys did not eat the sausages.”
- b. \*það borðaðu bjúgur ekki margir strákar  
there ate the-sausages NEG many boys  
“Many boys did not eat the sausages.”

It follows that the indefinite subject must be in a position external to VP but lower than the position occupied by the expletive. If the highest inflectional position is occupied by an expletive – either *það* itself or a null expletive whose presence is signaled by *það*<sup>20</sup> – then there must be two “subject positions” (a higher and a lower) in the syntactic space between c and v. Jonas and Bobaljik (1993), Bobaljik and Jonas (1996) identify that lower “subject-position” with the specifier of TP in the theory of clausal structure which derives from Chomsky (1991).

Similar observations are made and similar conclusions drawn with respect to colloquial Finnish by Holmberg and Nikanne (1994). In colloquial Finnish, one finds a range of Transitive Expletive Constructions similar to that found in Icelandic. Such constructions contain the expletive element *sitä* (which is the partitive form of the third person singular pronoun).

*Sitä* always immediately precedes the element (negation, auxiliary or main verb) which is inflected for subject agreement, suggesting strongly that it occupies the specifier of the subject agreement projection:

- (46) Sitä leikkii lapsia kadulla.  
EXP play children in-street

- (47) Sitä eivät nämä lapset olisi ikinä oppineet  
EXP NEG-P3 these children have [COND] ever learned  
kävelemään  
walk [-FIN]

"These children would never have learned to walk."

The expletive may be preceded by exactly one element, which must bear focus or contrastive stress; citing Vilkuna (1989), Holmberg and Nikanne analyze such elements as occupying the C-projection, the locus for contrastive stress and focus in Finnish.

- (48) Onko sitä leikkinyt lapsia kadulla?  
have-Q EXP played children in-street  
"Have there played children in the street?"

- (49) Nämä lapset sitä eivät olisi ikinä oppineet  
these children EXP NEG-P3 have [COND] ever learned  
kävelemään.  
walk [-fin]

"THESE CHILDREN would never have learned to walk."

The fact that the expletive must immediately precede the element that bears subject-verb agreement inflection, combined with the fact that it must follow elements analyzed as being in the C-projection, suggests strongly that it must occupy the highest inflectional projection (the subject-agreement projection, according to Chomsky (1991) and much subsequent work). The non-expletive subject may occupy a range of lower specifier positions (the specifier of TP, and the specifier of the Aux-projection in the analysis that Holmberg and Nikanne develop). It may not, however, remain within VP (Holmberg and Nikanne 1994: 182).

Zwart (1992) comes to the same conclusions concerning Transitive Expletive Constructions in Dutch.

A remarkably similar fate has overtaken the analysis of Irish clause-structure sketched in the previous section. It now seems clear that the subject in Irish finite clauses has in fact raised out of VP in the overt syntax. This position is argued for in some detail in McCloskey (1996) (see also Bobaljik and Carnie (1996)). The subject in Irish VSO structures must be taken, as in the case of the Icelandic expletive constructions, to occupy a lower

"subject position" – one higher than VP, but lower than the position occupied, for instance, by *there* in English. This conclusion is suggested by concerns internal to the theory of movement and also by tests having to do with the distribution of sentential adverbs. The nominative subject of a finite clause appears routinely to the left of such adverbs:

- (50) a. Deireann siad i gcónaí paidir roimh am luí.  
say they always prayer before time lie [-FIN]  
"They always say a prayer before bed-time."  
b. Chuala Róise gó minic roimhe an t-amhrán sin.  
heard often before-it that-song  
"Róise had often heard that song before."  
c. Níor bhual aon fhear amháin fós liom  
NEG-[PAST] struck any man one yet with-me  
a bhfuil a chuid éadaigh ghlain air.  
comp is his share clothes [GEN] clean [GEN] on-him  
"I haven't yet met one single man who has his clean clothes on."

If this interpretation is correct, then the subject must be external to VP in (50). But it has already been established that the subject in Irish occupies a position lower than the canonical subject position in an SVO language. Putting the conclusions together, it again emerges that there are two distinguishable subject-positions within the inflectional layer (see also Koopman and Sportiche (1991: 232–235) on Welsh).

According to the proposal made in McCloskey (1996), the properties of Irish VSO clauses are determined by a weak featural specification on the highest inflectional head but a strong featural specification on the lower inflectional head. The first specification means that there are no EPP effects in the language (expletives and their associated syntax are absent). The second means that there is obligatory ("Case-driven") movement of the highest DP-argument within VP to the second (lower) subject-position. Thus, promotion of a bare DP internal argument of a passive or unaccusative verb is obligatory in Irish as it is in English.<sup>21</sup>

These cases are emblematic. The proliferation of categories within the inflectional layer has made it difficult to point to cases where one can say with any confidence that the subject remains within VP. To really make the case, one would have to have a surer understanding of the phrase structure of the inflectional projections than anyone can reasonably claim to have at present.

This unclarity has combined with a revival of interest in some older concerns which were articulated clearly by Alec Marantz in the early 1980's.

One of the properties of the Internal Subject Hypothesis is that it blurs in a fundamental way the distinction between internal arguments and the external argument (a distinction introduced by Williams 1981). If all semantic role assignment is accomplished within lexical projections, then the structural difference between internal and external arguments is lessened.

The distinction remains important, though. Marantz (1984: 23–31), in particular, argues that there is a fundamental difference in the way that semantic roles are assigned to internal arguments and the way in which they are assigned to external arguments. According to Marantz, complements are arguments of the verb and are assigned their semantic role by the verb alone. Subjects, on the other hand, are arguments of VP, and are assigned their role by the VP – which is, in turn, a composition of the verb with its internal arguments. This asymmetry is reflected in an important difference in the way that internal and external arguments make their contribution to the process of semantic composition. Marantz points out that there are many cases in which the internal argument, when combined with the interpretation of the verb, can affect in a radical way the interpretation of the VP so formed and can, as a consequence, have radical effects on the kind of semantic role which is assigned to the subject. The examples in (51) and (52) are typical of this effect:

- (51) a. She [took a book from the library].
  - b. She [took a nap].
  - c. She [took offence at his remarks].
  - d. She [took a well-earned rest].
  - e. She [took a bus to Waltham].
  - f. She [took her medicine].
- (52) a. She [took to the water].
  - b. She [took to drink].
  - c. She [took to collecting stamps].
  - d. She [took to the place].

Angelika Kratzer (1994, 1996) has recently returned to these concerns and has shown that no currently known theory of argument structure can account for these observations, if it is assumed that the external argument (the pronoun *she* in the examples of (51) and (52)) is a direct argument of the verb. She proposes instead that there is a functional projection (which she calls *Voice*) which immediately dominates VP, and that it is this functional projection which is responsible for the assignment of roles associated with external arguments.<sup>22</sup>

The proposal found in Chomsky (1993, 1995) (which adapts earlier ideas of Hale and Keyser 1993) is close in spirit to Kratzer's, since it also assumes a distinguished element (in this case a phonologically null verbal element to which lower verbs adjoin) which is responsible for the assignment of

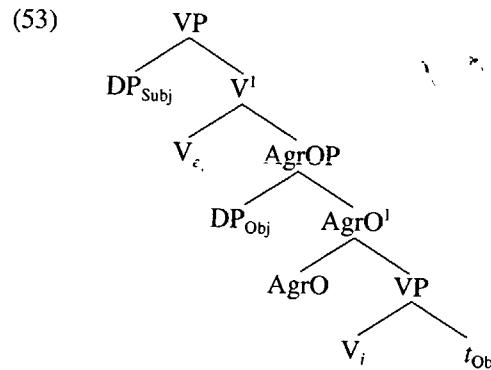
the roles characteristic of external arguments. For both Kratzer and Chomsky, the crucial element has VP as its complement, and internal arguments originate within VP. For both also, unaccusative structures simply lack the higher projection and include only (the lower) VP. The differences between the Chomsky and Kratzer positions are real enough, but distinguishing them empirically is a very delicate matter. The fundamental issue at stake is the understanding of the real difference between functional projections (can they ever be implicated in semantic role assignment?) and lexical projections (do they correspond to the "open class" categories of traditional grammar?).

In any case, the two sets of proposals mark, in an important sense, a return to one of the earliest versions of the Internal Subject Hypothesis – that of Koopman and Sportiche (1985, 1988, 1991). Koopman and Sportiche held that the external argument is not actually internal to VP, but is rather adjoined to VP. The adjunction relation is the structural correlate of the predication relation which governs the realization of the external argument. The principal difference between this proposal and the more recent ones is the postulation of an empty head (*Voice* for Kratzer, *v* for Chomsky) to regularize the phrase structural expression of the crucial semantic relation.

These developments are important but they do not mark a radical departure from the essential insight of the Internal Subject Hypothesis – namely that semantic role assignment for subjects takes place at a position lower than the position(s) in which their morphosyntactic properties are licensed, and that the crucial position is in a very local syntactic relation with the projection (VP) in which internal arguments are realized.

But the postulation of a separate head responsible for the realization of external arguments has permitted the formulation of proposals which depart more radically from these assumptions. Since the head responsible for internal role assignment (*v*) is distinct from the head (*Voice* or *v*) responsible for external role assignment, it becomes possible to formulate theories in which the two heads are in a less local syntactic relation. Specifically, it becomes possible to propose that certain functional projections (Aspect, or the Object Agreement projection) intervene between the two. A variety of such theories has been proposed (see especially Travis 1992, Koizumi 1995, Harley 1995). They seem to draw their plausibility from two sources. The first is that, as we have seen, it has proved unexpectedly difficult to point with confidence to cases where the external argument appears unequivocally within VP (in a position, say, below the target-position for Object Shift). If the subject originates below all the inflectional projections, why should it prove so difficult to document cases in which it remains in such a position? The second is that certain difficulties for the theory of locality of movement (the difficulty, in particular, of how the subject can cross the position of a shifted object) disappear if one assumes that the subject always originates in a position higher than that of the shifted object. One

version of this set of ideas is schematized in (53), in which  $V_e$  is the element responsible for introducing the external argument, and  $V_i$  is the element responsible for introducing the internal argument(s).



The hypothesis underlying theories of this general kind has come to be known as the Split VP Hypothesis.

These moves represent a more radical departure from the insight that the Internal Subject Hypothesis claims to capture. They also (in some of their articulations at least) relinquish a basic claim about clausal organization – namely that the projections responsible for semantic role assignment (whether lexical or functional) are contained within a layer of inflectional projections.

The empirical issues at stake are, in principle, clear – are there cases in which the external argument can be shown to originate below the target-position for Object Shift (the projection in which accusative case is assigned and object agreement checked)? The issue remains murky, but I'd like to end this survey by considering some cases in which the subject does seem to occupy a position below the target-position of Object Shift.

We should begin by noting that the Ulster English cases discussed earlier are of the crucial type. Recall that in these cases the imperative subject appeared below the Object Shift position for weak pronouns (see (29)a, (30)a and (37) above).

A similar situation obtains in the Celtic language Breton. Schafer (1994a, 1994b) considers a number of issues in the clausal structure of Breton. Breton is VSO in its finite clauses; but it is Verb Second in matrix (or more generally non-selected) clauses, as illustrated in (54):

- (54) Lan a dreso buan ar c'hlleud  
 Lan PTC fixes well the fence  
 "Lan fixes the fence well."

The underlying VSO character of the language emerges in those contexts

where Verb Second is impossible – in relative clauses, for instance, or in complement clauses (see Schafer 1994b for details and analysis). What is interesting for our purposes here, though, is that Breton also has Object Shift of the kind familiar from the Mainland Scandinavian languages. Weak object pronouns must appear in a position to the left of the left edge of VP. In (55), for instance, the weak pronoun *anezhi* appears (and must appear) to the left of the manner adverbial *buan*. The evidence which suggests identifying this shifting of weak pronouns with Object Shift of the Scandinavian type is developed in detail in Schafer (1994a).

- (55) a. Lan a dreso anezhi buan  
 Lan PRT fixes it well  
 "Lan fixes it well."  
 b.\*Lan a dreso buan anezhi.

In (55), the subject has undergone fronting to initial position under Verb Second. But when we consider clauses in which this has not happened, it emerges that the subject must appear to the right of the shifted pronoun. This is shown for Verb Second (matrix clauses) in (56) and (57), in which a non-subject has been topicalized:<sup>23</sup>

- (56) a. Breman e wel anezhan Maia  
 now PRT fixes it well Maia  
 "Maia sees it now."  
 b\*.Breman e wel Maia anezhan.

- (57) Dec'h neus roet anezhan Yann d'e verc'h  
 Yesterday has given it Yann to-his sister  
 "Yesterday Yann gave it to his sister."

In complement clauses, in which no constituent is topicalized, we see the same pattern:

- (58) Sur on en'eus lakaet anezho Yann war an daol  
 sure I-am has put it Yann on the table  
 "I'm sure that Yann has put it on the table."

The position of the subject in (58) especially (below the Object Shift position and below the position of raised participles) suggests that the subject here may be within VP.

Finally, consider Irish. In nonfinite clauses in Irish, the object appears in a position to the left of the nonfinite verb, as seen in (59) (with an overt subject) and (60) (with a control subject):

- (59) D'iarr sé orthu [gan [sin buaireamh ar bith  
asked he on-them NEG that sadness any  
a chur orthu]]  
put [-FIN] on-them

"He asked them that that not cause them sadness."

- (60) Níor mhaith liom [Ciarán a fheiceáil]  
I-wouldn't-like Ciarán see [-FIN]  
"I wouldn't like to see Ciaran."

There is a great deal of evidence that the object occupies a functional projection which deserves the name "object agreement projection." The head of this projection is the particle *a* which precedes the nonfinite verb in (59) and (60) (it can also be realized as an object agreement prefix under the usual conditions in which overt agreement is permitted in Irish). (McCloskey 1980, 1986, McCloskey and Sells 1988, McCloskey (in prep), Guilfoyle 1990, 1994, Duffield 1995, Bobaljik and Carnie (1996)).

Normally, an overt subject appears to the left of the preposed object (as in (59)), but under one circumstance it may appear in a different position. Under conditions that vary from dialect to dialect, the subject of a non-finite clause may be marked with the dative preposition *do*. When this is the case, the subject so marked has two positional options. It may appear in initial position as normal, as in (61):

- (61) a. I ndiaidh dona Coláistí Ullmhúcháin druidim  
after to-the Colleges Preparation close [-FIN]  
"after the Training Colleges closed"  
  
b. Tar éis do lucht na Parlaiminte an caisleán  
after to people the Parliament [GEN] the castle  
a thógáil  
take [-FIN]  
"after the Parliamentarians took the castle"

Alternatively, the dative-marked subject may, in formal registers, appear in post-verbal position:

- (62) a. Le linn é a fhágaint dhom  
when it leave [-FIN] to-me  
"when I leave it"  
  
b. Le linn an chaint sin a rá dó  
while the talk demon say [-FIN] to-him  
"while he was saying this"

- c. Roimh an gcathair a shroicheadh dóibh  
before the city reach [-FIN] to-them  
"before they reached/reach the city"

If the dative subject remains inside VP, as an option, and if the verb in turn raises to adjoin to the object agreement projection, this is just the pattern that we would expect (assuming that VP is the complement of the object agreement projection). For more detailed discussion and analysis, see McCloskey (1995a, in prep).<sup>24</sup>

All of these cases<sup>25</sup> deserve much closer scrutiny than it is possible to give them here, but they are in combination at least suggestive. While unusual conditions have to be set up (morphosyntactic conditions that will call off the usual requirement of raising), it does seem to be possible on occasion to observe the subject occupying a position within VP. If the cases here are correctly interpreted, they pose difficulties for the Split VP Hypothesis, since within those conceptions the subject should never be able to appear below the target-position for Object Shift.<sup>26</sup> They provide support, rather, for the earlier view according to which inflectional projections may not be interspersed among the lexical projections (or the Θ-assigning projections).

## 9. UNDERSTANDING SUBJECTHOOD

If the general line of investigation considered here is roughly correct, then there are at least three subject-positions made available in principle by the theory of grammar. The lowest position (within VP or immediately above VP) is the position in which semantic role assignment takes place. There are, in addition, at least two higher positions within the inflectional projections which have a role in licensing various aspects of the morphosyntax of subjecthood.

What is the understanding of subjecthood that we are left with in the end? It is composite and derivational. There is no term in the theory of grammar which corresponds to "subject" and, in contrast with theorizing of the 1960's, 1970's and early 1980's, there is no "subject position." The properties that define subjecthood informally are distributed across at least three distinct syntactic positions. A subject is a nominal which has passed through all three positions in its derivational career and whose properties (referential and formal) must as a consequence be compatible with the various requirements imposed in those positions. There is no coherent distinction between "derived" and "underived" subjects. To the extent that the distinction is reconstructed, it is simply the difference between cases in which the DP originates in the most prominent argument position within VP (these are the "underived" subjects of earlier theorizing) and those in which the DP originates in one of the lower, or internal, argument-positions within VP.

In a sense, the theory denies the fact that subjects are typically animate agents (since it denies the distinction between derived and underived subjects). DP's will have the referential and semantic properties appropriate to the positions in which they originate and the roles which are assigned in those positions. A DP which originates in the most prominent argument-position will have the properties appropriate to the kind of role typically assigned in that position (AGENT, say). A DP which originates in one of the lower argument-positions will be required to have some different set of properties. If there is one argument, that will raise. If there are two or more arguments, that one will raise which is most accessible to the inflectional projections which license the morphosyntactic properties of subjects. There is no theory of what kind of nominal can be a subject, apart from the theory of argument-linking which says that certain role-types tend to be associated with the more prominent positions, and the theory of locality of movement which ensures that the relative prominence of nominals within VP will be preserved after they have raised into the inflectional layer (see Baker, this volume).

Why do subjects seem to be obligatory in many languages, and why is the subject necessarily nominal? A crucial part of the inflectional layer is the projection in which subject-verb agreement is checked (the highest projection according to Chomsky 1991, 1993, 1995). For some reason which remains unclear, the agreement relation requires a DP for satisfaction. Since this relation has to be satisfied at some point in the derivation, there will have to be in every sentence some DP which is in a position from which it can legally raise to the position where the crucial agreement relation can be established. This part of the theory is complete when there is an understanding of why the subject-agreement projection is an obligatory element within the inflectional layer (in general or in a given language).<sup>27</sup>

For the same reason, movement which is driven by the checking requirements of inflectional features will always be movement of a DP, and we have the beginnings of a theory of why the "cyclic NP-movements" of the *Aspects* theory are in fact NP(DP)-movements (rather than movements of some other category). Much of this understanding derives from the fundamental idea that clauses consist of a lexical projection or projections embedded within a set of nested inflectional projections. It is this principle of organization which leads to the necessary existence of DP-movement, and which gives rise to the complex web of derivational relationships which we name informally "subjecthood." The deeper question, of course, is why natural language should be organized in this bizarre way.

#### Linguistics

University of California, Santa Cruz  
Santa Cruz, California 95064

#### NOTES

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<sup>1</sup> See Keenan (1976) for a useful and comprehensive survey of subject properties across languages. Space considerations prevent a full discussion of all the properties that have been attributed to subjects. We will have nothing to say, for instance, about the connection between subjecthood and topichood. Nor will we consider the many issues raised by the special properties of subjects in interaction with  $\bar{A}$ -Movement – ECP effects, and the "accessibility hierarchy" of Keenan and Comrie (1977). There is an intriguing tension between these two, in that the ECP has as a consequence that in a given language subject-extraction will in general be troublesome in a way that complement-extraction will not be. Yet the "accessibility hierarchy" makes the clearly correct claim that, in typological perspective, subjects are much more likely to be extractable than any other phrase-type.

<sup>2</sup> An important antecedent being the conception of clausal organization found in Case Grammar (Fillmore 1968).

<sup>3</sup> Except perhaps the EPP itself. More on this below.

<sup>4</sup> The postulation of an inflectional projection implicated in the licensing of accusative case (Chomsky 1991), of course, drives a wedge between the "internal argument position" and the "accusative position" and can be seen as a further working out of the same methodological imperative. In a sense, that move deconstructs the notion "direct object" in the same way in which the notion "subject" has been deconstructed along the lines of the text discussion. To the extent that the analytical move deepens understanding of particular languages (in the understanding it provides of Object Shift phenomena in a variety of languages, for instance), one might conclude that the instinct has proved trustworthy. Likewise for subjects.

<sup>5</sup> Kitagawa (1986), Koopman and Sportiche (1985, 1988, 1991), Kuroda (1988), Rosen (1989), Speas (1986), Wible (1990), Woolford (1991), Zaguna (1982). Important antecedents include Fillmore (1968) and Ross (1969b).

<sup>6</sup> The usual view is that this will happen in all languages either in the pre-audible part of the derivation – in which case its effects are directly observable, or else in the post-audible part of the derivation in which case its effects can be detected only indirectly if at all. Kuroda (1988), however, develops a theory by way of which a broad range of contrasts between Japanese and English can be understood on the assumption that the relative morphological impoverishment of Japanese (lack of agreement morphology in particular) reflects a substantial syntactic difference between the two languages as well. In such a language, raising of the subject will be unnecessary and impossible. This allows Kuroda to make a connection between the lack of agreement and the availability of scrambling. The specifier of IP is available as a target position for scrambling. Furthermore, since uniqueness of the specifier is not an intrinsic part of the theory of phrase structure but forced only by the bi-unique character of the agreement relation, the specifier of IP may be multiply filled, giving rise to multiple scrambling. These ideas are incompatible with the framework of Chomsky (1993), but perhaps compatible with the theory of Chomsky (1995: Chapter Four).

<sup>7</sup> The logic of this argument implies that the subjects of small clauses (those seen in (i)–(iv) at least) must also originate in a lower position:

- (i) With Gramm on the sidelines and believed to be running short of money, the race now looks a lot closer.
- (ii) I watched Michelle open the door and be greeted by the assembled guests.
- (iii) We had the prisoners line up and be photographed.
- (iv) ? While PRO in custody and being interrogated, my courage failed me.

Such examples are in harmony with expectation if small clauses are functional projections (Kitagawa 1985, Hornstein and Lightfoot 1987, Bowers 1993, Chomsky 1993, Svenonius 1994, Sportiche 1995 (especially 291–302), Starke 1995, Contreras 1995, Guérón and Hoekstra 1995, Stowell 1995) and if their subjects originate within the lexical complement of the (lowest) functional head. If strict syntactic identity is really a condition on coordination, then examples such as (i)–(iv) must be taken to involve coordination at the intermediate bar-level of the functional projection if there is just one such projection.

<sup>8</sup> Perhaps also in such contrasts as that between (i) and (ii):

- (i)      The police arrested the demonstrators willingly.
- (ii)     The demonstrators were arrested by the police willingly.

See Jackendoff (1972), Lasnik and Fiengo (1974) for some discussion.

<sup>9</sup> Specifically, Aoun and Li argue that the absence of certain ambiguities in Chinese stems from the fact that subjects in that language have a different phrase structure status than in English. See also Wible (1990) for relevant discussion.

<sup>10</sup> Takano (1995) makes a proposal which is similar in spirit to Heycock's in that it also assumes that the fronted predicate must appear in its base position at LF, or act as if it appeared there. He derives this requirement, though, in a way that crucially depends on the Internal Subject Hypothesis, in that what forces full reconstruction, in his view, is the requirement that the subject trace within the predicate have a c-commanding antecedent at LF (i.e. that it meet the Proper Binding Condition on traces).

<sup>11</sup> Three of the most important and interesting cases will not be considered.

The first is Kuroda's (1988) extensive contrastive analysis of Japanese and English. This analysis is built on a version of the Internal Subject Hypothesis and anticipates much later work in interesting ways (see note 6 for some discussion).

The second is the work of Guilfoyle, Hung and Travis (1992) on a number of Austronesian languages.

The third is the rich and substantial body of work on post-verbal subjects in Romance languages (Kayne 1972, Kayne and Pollock 1978, Pollock 1983, 1986, Burzio 1986, Déprez 1988, Bonet 1989, Belletti 1990, Wible 1990, Rizzi 1991, Zubizaretta 1992, 1994, Belletti and Shlonsky 1995 (especially 500–506)), much of which now claims that the post-verbal subject occupies a VP-internal position. Evaluation of these claims is made difficult by two complicating factors. The first is that most of the languages impose an adjacency requirement of one kind or another on the relation between the main verb and the post-verbal subject. The force of this requirement varies considerably across the languages (being stronger, for instance, in French than in Italian), and it is in addition subject to a great deal of subtle idiolectal variation. There is no consensus about how to best understand this requirement (for Rizzi 1991 it reflects an adjacency requirement imposed on Case-assignment under government). A second complication is the fact that the postposed subject in all the languages seems to be inherently focused, suggesting to some (for instance Belletti and Shlonsky (1995: 500–506)) an analysis in which the subject moves to a distinguished focus position at the periphery of VP – in which case the implications for the Internal Subject Hypothesis are less than clear.

<sup>12</sup> One could achieve the same structural effect by analyzing the verb-fronting as moving an inflected verb from I to C around a subject in the specifier of IP; this is fairly clearly wrong for Irish (McCloskey, to appear), though perhaps right for other VSO languages (see Carnie, Pyatt and Harley (1994) on Old Irish).

<sup>13</sup> It is known that the analysis just sketched is not right for all VSO languages. Chung (1990), for instance, shows clearly that it is not right for Chamorro. It seems to be very unlikely that the category "VSO language" is other than epiphenomenal.

<sup>14</sup> This is not the conclusion drawn by Sells, Rickford and Wasow. Their discussion assumes that I-to-C fronting is free as long as the C-position is not lexically filled. The substantial

body of work on Verb Second phenomena, however (see Vikner 1991 for a survey), suggests that the possibilities are much more restricted than this.

<sup>15</sup> Actually, Henry considers two distinct sub-dialects which differ in the range of verbs which tolerate a post-verbal subject. In the more restrictive dialect (which she terms Dialect A) only telic verbs of motion support the pattern in (27). In the more liberal dialect (Dialect B), a much broader range of verbs, including transitives, allow it. I will restrict my commentary here to the facts of the more liberal dialect. Henry's proposal about dialect A is that in these systems only (a subclass of) unaccusatives permit inversion, and that the post-verbal subject is an un-raised internal argument. Since we are dealing here with subjects and subjecthood, these patterns are of less concern to us.

<sup>16</sup> Henry (1995: 71–72) shows clearly that the position of the weak pronoun is not a consequence of it having cliticized to the verb and raised with it. Rather the properties of the proposed pronoun closely mirror those documented for Object Shift in the Mainland Scandinavian languages and in earlier stages of English.

<sup>17</sup> The exposition at this point ignores many important complexities – especially having to do with the analysis of the expletive element. We return to a more responsible and detailed treatment shortly.

Sigurðsson (1991) and Vikner (1991) both in fact hold that the indefinite subject in (42)b is in the specifier of a lexical projection. They assume, however, that it occupies the specifier of the verbal projection associated with the perfective auxiliary *hefur*, which has itself raised to I. More generally, the fundamental idea in both analyses is that the indefinite associate must occupy the highest specifier position within the lexical layer (in the specifier position of the highest auxiliary, for instance, in the case of multiple auxiliaries). The idea is in turn that the indefinite subject has raised to this position from its Θ-position – specifier of the VP projected by the main verb.

<sup>18</sup> For an analysis of the Dutch construction along the same lines as that just sketched for Icelandic, see for instance Rullmann (1989).

The Dutch transitive expletive constructions have the additional curious property that both the subject and the direct object are subject to the (in)definiteness restriction (Bennis 1986), suggesting perhaps that objects are associated with a higher null object-expletive.

<sup>19</sup> Joan Maling points out that (45)a with sentence-final negation is somewhat degraded for at least some speakers. The contrast between (45)a and (45)b seems to be strong and clear however.

<sup>20</sup> This assumption is far from innocent, especially in the context of debates about the nature of the Verb Second phenomenon in Icelandic. The balance of evidence, however, suggests that it is correct, I believe. These difficulties do not arise for the Finnish cases discussed directly below.

<sup>21</sup> If all this is correct, then the ellipsis process discussed earlier must now be taken to involve not ellipsis of VP, but rather ellipsis of a larger functional projection (complement to the head which hosts the raised finite verb). A possible interpretation is that the higher head is T (McCloskey 1996), and that T is the head which is crucially involved in the licensing of VP-Ellipsis.

<sup>22</sup> Kratzer also assumes that the Voice projection is implicated in accusative case assignment, and thus arrives at a very direct structural interpretation of Burzio's Generalization. See also Déchaine (1993 (especially Chapter 2), 1994) for distinct but related proposals.

<sup>23</sup> On the positioning of the participle in (57), see Schafer (1994a).

<sup>24</sup> Watanabe (1995: 249–281) discusses a range of cases in which subjects bearing a non-standard or oblique case-marking (genitive in Japanese for example) have the option of not raising, at least in the overt syntax. The present case perhaps deserved to be considered in the same context, although the interaction with Ā-movement with which Watanabe is chiefly concerned is not an issue in the Irish data.

<sup>25</sup> Jonas and Bobaljik (1993) claim that the subject may never appear below the Object Shift

position in Icelandic. However, subsequent research has revealed that the possibility does in fact exist under certain circumstances (Dianne Jonas, personal communication).

<sup>26</sup> They also pose difficulties for the position outlined in Kratzer (1994, 1996), since the accusative position in that conception is the specifier of VP, which is below the head responsible for external argument realization.

<sup>27</sup> See McCloskey (1996) for an argument that languages may lack this projection and that such languages will as a consequence lack the empirical effects associated with the Extended Projection Principle.

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