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Argument features, clausal structure and the computation

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Abstract

This paper claims that case *is* vP-internally interpretable and that high NP-movement is driven by (minimally) two other 'forces': Person checking in a position higher than Tense, and EPP (Fin) checking in a still higher position, 'Spec,IP'. This is evidenced by ´low' nominatives, quirky agreement, Stylistic Fronting and expletive-distribution.

       Another central claim of the paper is that grammar *interprets* event features in relation to speech features. In particular, Person drives NP-movement because it computes event participants (cased θ-roles) in relation to speech participants, much as Tense links event time to speech time. As evidenced by both tense interpretation and pronoun interpretation, the finite clause is a Speech Phrase, SP, containing *syntactic* speech features.

1. Introduction

The Argument Structure conference in New Delhi was a great opportunity for me to present my thoughts on argument features and clausal structure as they have developed over the years. It all began with my studies of case in Icelandic almost twenty years ago. Narrow as these studies were, they soon revealed, at least to me, that the standard GB approach to the correlation between case, EPP, NP-movement and clausal structure was somehow quite off the track, but simultaneously very insightful, contradictory as that may seem. What is it that we are missing? – That has always been the tantalizing question. The Delhi conference gave me a new and a very welcome incitement to explore it.

       I have decided to keep the 'historical dimension' of the paper, starting out by reviewing my central reasons for rejecting or at least 'radically modifying' the standard approach to case and the clausal derivation/computation, as it has developed from Chomsky 1981 to Chomsky 2001. In *Lectures on Government and Binding* (1981), Chomsky assumed a direct relationship between nominative case and NP-movement to Spec,IP (and EPP). Largely in view of facts from Icelandic, he revised his ideas in Minimal Inquiries (2000) and further in Derivation by Phase (2001), suggesting that the correlation between nominative case and NP-movement/EPP is only indirect, ultimately boiling down to matching and subsequent elimination of uninterpretable features. I argue strongly that both approaches are off the track. First, the structural cases are licensed vP-internally and are in fact interpretable, in a sense; more generally, syntax does not operate with uninterpretable features. It follows that case does *not* drive the computation, neither directly nor indirectly. Second, however, so-called quirky agreement suggests that the computation is at least partially driven by matching of ϕ-

features, in particular Person. That is, Person has to some extent the status that has commonly been attributed to case.

This is the background presented in sections 2 and 3. In the remainder of the paper, sections 4 and 5, I develop a theory of the syntactic computation that accords with these results. In particular, I claim that grammar computes or interprets event features in relation to speech features. I addition, I develop a novel approach to clausal architecture, accounting for the central status of Tense and Person in language as features that relate events to speech and are thus fundamental components of the displacement property (or the computational property) of language.

2. Background: Case is not a driving force – Person and EPP are

As is well-known, Icelandic has a wide range of constructions with 'quirky subjects', that is to say, DPs that are dative (common), accusative (less common) or genitive (rare), but are nonetheless syntactic subjects. A few examples are given in (1); the nominatives in (1d,e) are syntactic objects.

(1) a. **Hana**   þyrstir.
         her.ACC thirsts
         'She is thirsty.'
     b. **Hana**   vantaði peninga.
         her.ACC lacked   money.ACC
         'She lacked money.'
     c. **Henni** var óglatt.
         her.DAT was nauseated
         'She was nauseated.'
     d. **Henni** líkuðu hestarnir.
         her.DAT liked   horses.the.NOM
         'She liked the horses.'
     e. **Henni** voru gefnar bækurnar.
         her.DAT were given   books.the.NOM
         'She was given the books.'
     f. **Hennar** var saknað.
         her.GEN was missed
         'She was missed (by someone).'

Nominative is by far the most common subject case in Icelandic (see Barðdal 2001). However, in all these (and most comparable) examples, the nominative form *hún* 'she' is entirely out of the question. Avery Andrews (1976) was the first to argue that Icelandic "quirks" do not only have the semantics of subjects (as the 'most prominent' argument), but do in fact behave *syntactically* like regular, nominative subjects with respect to a host of phenomena, including reflexivization, subject gaps (in PRO infinitives and in Conjunction Reduction), subject-to-subject raising, ECM,

and so on (thereby differing from similar arguments in many other languages, e.g. German). Another seminal study, largely within the LFG framework, is that of Zaenen et al. (1985).

In my dissertation (Sigurðsson 1989), I studied the impact of the Icelandic 'quirky phenomenon' for standard Government and Binding theory. The problems turned out to be truly damaging for the central idea that NP-movement is case-driven, applies 'in order for' the subject to be successfully marked for nominative case. I believe it is fair to say that I demonstrated that Icleandic non-nominative subjects undergo NP-movement in exactly the same manner as do nominative subjects in the language (see also Sigurðsson 1992, 2000, 2003a). In contrast, this has never been demonstrated beyond doubt for similar arguments in many other languages, such as German and Russian (see the discussion in Haeberli 2002, Sigurðsson 2002; see also e.g. Masullo 1992 on clitics in Spanish).

The obvious way out was of course to analyze Icelandic quirky subjects as carrying invisible nominative case 'on top of' their inherent case (as in e.g Belletti 1988, Jónsson 1996, Chomsky 2001). This is a priori not an implausible idea at all (see the discussion in Sigurðsson in press). However, it is refuted by two very robust facts: First, quirky subjects do not interfere with or 'absorb' nominative case: as seen in examples like (1d,e), dative subjects of many predicates allow cooccurring nominative objects. Second, many languages allow deeply embedded nominatives that do not enter into any visible relation with Tense.

Consider the Dat-Nom construction, as in (1d,e) and in (2) below:

(2) a. Henni <u>mundu</u> hafa leiðst **strákarnir**.
         her.D would.3PL have bored boys.the.N
     b. Okkur <u>mundu</u> ekki hafa líkað **þessar athugasemdir**.
         us.D would.3PL not have liked these comments.N

The mere fact that predicates like *leiðast* 'find boring' and *líka* 'like' take nominative objects shows that the dative subjects do not 'absorb' morphological nominative case (in contrast to dative subjects in Tamil and many dative subjects in Faroese, as discussed in Sigurðsson 2003a, in press, and the references cited there; see also Jonas 2003 on Faroese). Second, the fact that the nominatives in (2) trigger plural agreement of the finite verb, suggests that these nominatives are structural.[1]

Largely on the basis of Icelandic facts of this and related sorts, Chomsky gave up the idea that case is directly responsible for NP-movement and EPP. He contends that "structural Case is demoted in significance" (2000: 127) and that "Case assignment is divorced from movement" (2001: 17). Nonetheless, he explores the idea that there is an indirect correlation between case and NP-movement. T(ense), in his view (2000, 2001) probes for the interpretable φ-features of a nominative DP and, subsequently, the EPP feature of T attracts the DP.[2]

However, even this much weaker undestanding of the interaction of Tense, case and EPP meets problems (see Sigurðsson 2000, 2003a, in press, for discussion). One of the more serious ones is the plain fact that 'low' nominatives, that do not have any visible relation with Tense, are

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[1] In Sigurðsson 1996, I suggested that nominatives of this sort might be lexical, an idea that was clearly on the wrong track (as also pointed out in Boeckx 2003).
[2] For a closely related, albeit a somewhat different approach, see Pesetsky and Torrego 2001.

abundantly manifested cross-linguistically (see e.g. Menching on the Romance languages).[3] Thus, the Icelandic Dat-Nom constructions in (2) above are easily embedded in both ECM infinitives and in PRO infinitives (where PRO is dative):

(3) a. Við töldum [henni hafa leiðst **strákarnir**/*strákana].
         we believed.1PL her.D have bored boys.the.N/*A
         'We believed her to have found the boys boring.'
     b. Hana langaði ekki til [að leiðast **þeir**/*þá].
         her.A longed.3SG not for to bore they.N/*A
         'She did not want to find them boring.'

As seen, there is no agreement relation between the finite matrix verb and the downstairs nominatives in examples of this sort.[4]

Chomsky's ideas on case, EPP and related phenomena basically aim at furthering our understanding of the classical 'nexus' problem of how subjects relate to predicates (Jespersen 1924 and many others). Let us refer to this relation as the **DP-INFL CONNECTION**. There is of course no question that this connection usually triggers an agreement correlation between the finite verb complex and *nominative* subjects in languages like Icelandic, French, etc. However, the Icelandic facts illustrate that nominative case is *not* an essential element of the DP-Infl Connection. First, as we have seen, non-nominatives may enter this connection, and, second, nominative case is licensed deeply embedded, that is, outside and unrelated to the DP-Infl Connection. Inasmuch as nominative case may be present in the DP-Infl Connection, it's presence in Spec,IP is *not* a causal factor – it is instead a *consequence* of the causal factors.

Two very important questions arise:

A   What, then, *are* the causal factors of the DP-Infl Connection?
B   Where and how is nominative case licensed, and what is its function?

I shall address Question B in the next section, dealing with Question A in the remainder of this one.

As we have seen, Icelandic quirky subjects do not interfere with or absorb nominative case. However, they *do* interfere with the matching of *another* feature, namely PERSON. This

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[3] In addition, of course, there are other types or instances of nominatives that do not relate to Tense, such as predicative DPs, left and right dislocated DPs, DPs in isolation, vocative DPs, and so on. However, these are not as unequivocally and centrally problematic as nominative arguments in infinitives. A subtype of such infinitives that *is* truly problematic is negative Icelandic infinitives (with pleading force) that allow overt, contrastively focussed nominative subjects:
(i)   Ekki ÞIÐ/*YKKUR fara líka!
       not you.NOM/*ACC leave too
       'Please, don't YOU leave too.'
This type has gone unnoticed in the linguistic literature, as far as I know. It is frowned upon by many 'language friends' (that is what they believe themselves to be), but it is perfect for me and most other informants I have asked.
[4] Such examples exist, however. That is to say, certain nominatives in infinitival complements can agree in number with the matrix verb. However, these examples are of a different nature, irrelevant here (but for a discussion, see Sigurðsson 1996, 2004).

is illustrated by the agreement asymmetry between 3p on one hand and 1/2p on the other hand in Dat-Nom constructions as in (4) (see the description in Sigurðsson 1990-91, 1996, and the discussion in Boeckx 2000, 2001, 2003, Sigurðsson 2004):

(4) a.   Honum **mundu** alltaf líka þeir.   OK
           him.D would.3PL always like they.N
           'He would always like them.'
     b.   *Honum **munduð** alltaf líka þið.   *!
           him.D would.2PL always like you.N.PL
     c.   *Honum **mundum** alltaf líka við.   *!
           him.D would.1PL always like we.N

First and second person agreement with the nominative object is sharply ungrammatical, (4b,c), whereas the third person nominative in (4a) triggers plural agreement of the verb. Strikingly, this agreement asymmetry is not found in many other languages that have Dat-Nom constructions, for instance German, as illustrated below:

(5) a.   Ihm würde**n sie** immer gefallen.   OK
           him.D would.3PL they.N always like
     b.   Ihm würde**t ihr** immer gefallen.   OK!
           him.D would.2PL you.N always like
     c.   Ihm würde**n wir** immer gefallen.   OK!
           him.D would.1PL we.N always like

As I have argued elsewhere (Sigurðsson 2000 and subsequent), facts of this sort suggest that the Infl complex of the clause splits into at least Pers(on), Num(ber) and T(ense) (see further section 4.1). If so, the clauses in (4)-(5) have roughly the structure in (6), at the relevant level of representation:[5]

(6) [$_{CP}$ C … [$_{IP=PersP}$ Pers [$_{NumP}$ Num … [$_{vP}$ … DAT… NOM…

In Sigurðsson 2004 it is argued that the Icelandic dative matches Pers, by raising into its immediate c-command or feature matching domain, that is to say into Edge,NumP.[6] This yields the structure in (7):

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[5] I am using X'-theoretic conventions for expository ease only. X'-theoretic notions are theoretical artifacts that should be dispensed with (see section 3.2 and the references there).

[6] Feature matching is a c-command or an Agree relation (as in Chomsky 2000, 2001), not a Spec-Head relation. For a thorough discussion, see Sigurðsson 2004. Usually it is local, taking place under immediate c-command. That is, a lexical matcher $X\alpha Y$ must usually move into the vicinity of the functional category α being matched, where α immediately c-commands $X\alpha Y$. There are well-known exceptions, but they are arguably subsumed under Matching Minimality as defined in (34) below.

(7)   [$_{CP}$ C … [$_{IP}$ Pers [$_{NumP}$ DAT, Num … [$_{vP}$ … ~~DAT~~ … NOM …

As indicated by the feature matching paths, the dative is free to locally match Pers. Simultaneously, having been raised, the dative does not intervene between Num and the nominative object, and they may accordingly agree. This accounts for the grammaticality of (4a): Pers 'agrees silently' with the dative (third person being an unspecified person or 'no' person), and Num agrees (with only the number of) the nominative object.[7] In contrast, Pers cannot agree with the nominative object since it is already engaged in a matching relation with the dative. Hence, the ungrammaticality of (4b,c).[8]

Not only does the dative match Person in Icelandic, it subsequently moves on to Edge,IP ('Spec,IP'), where it matches the EPP feature as well. In German, on the other hand, non-nominatives cannot match Person, and are hence blocked by economy from raising to Edge,NumP (where they would have 'no business'). Instead, they raise directly to the EPP position, Edge,IP:

(8)   [$_{CP}$ C … [$_{IP}$ DAT, Pers [$_{NumP}$ Num … [~~DAT~~ … NOM…]]]]

Accordingly, the dative does not intervene between Pers and the nominative, and hence both Pers and Num are free to agree with nominative, as in (5b,c).

Icelandic Stylistic Fronting (SF) is a much discussed process that fronts various elements into Edge,IP (see Holmberg 2000 and the references there). It offers interesting evidence that matching of the EPP feature is an independent requirement, distinct from person matching. The evidence in question has to do with *Maling's Generalization*, namely the observation of Maling (1980) that SF is conditioned by a 'subject gap', cannot apply in the presence of a regular overt subject. Consider the examples in (9). In (9a) the participle *talað* 'talked' may be fronted, in the absence of an overt regular subject. In the presence of a regular subject, as in (9b,c), fronting of the participle is excluded (for convenience the copy is shown as a slot here):

(9)   a.   Þetta er mál [sem **talað** hefur verið __ um].
             this is matter that talked has.3SG been about
             'This is a matter that has been discussed a lot.'
       b.   *Þetta er mál [sem **talað** <u>hann</u> hefur __ um].
             this is matter that talked he has.3SG about

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[7] Quirky agreement (in the sense of Boeckx 2000) is always morphologically third person singular. On the question of why 'true' or overt person agreement is impossible, see Sigurðsson 2003a.

[8] For a discussion of these complex issues, see Sigurðsson 1996, 2004, and the references cited there (where, among other things, it is shown that the person restriction is only found in the presence of an 'intervener' (either a quirky or a regular subject). Notice that nominative first and second person subjects match Num prior to DP-raising (the matching process not being blocked by any intervening dative), as well as Pers after DP-raising to Edge,NumP. On the other hand, dative subjects in Dat-Nom constructions do not generally null-agree with Num (resulting in a 'singular' or a 'null-number' form; however, this is an option for some speakers, it seems). This suggests that getting the status of a quirky subject in these constructions (generally) involves a permutation or a 'passivization' process, raising the dative across the nominative (see Platzack 1999 for a relevant discussion of the NOM-DAT vs. DAT-NOM alternation). Ergativity might be analyzed along similar lines, but I am not in a position to pursue the issue, interesting as it is.

    c.   *Þetta er mál [sem **talað** hefur <u>hann</u> __ um].
          this is matter that talked has.3SG he about

    d.   Þetta er mál [sem **hann** hefur talað um].
          this is matter that he has.3SG talked about
          'This is a matter that he has talked about.'

Stylistic Fronting applies to the closest possible candidate (in a sense explicated by Holmberg 2000), moving it to Edge,IP. In the presence of a regular (nominative or quirky) subject that has moved to Edge,NumP, where it matches Person, the subject itself is the closest possible candidate, thus being stylistically fronted from Edge,NumP to Edge,IP. In the absence of a subject, on the other hand, lower categories, like the participle in (9a), may front into Edge,IP without violating the Minimal Link Condition (MLC, cf. Chomsky 2001: 16):[9]

(10) a. ^{ok}[$_{CP}$ C … [$_{IP}$ SF … [$_{NumP}$ Ø …   cf. (9a)

      b.   *[$_{CP}$ C … [$_{IP}$ SF … [$_{NumP}$ SUBJ …   cf. (9b,c)

      c. ^{ok}[$_{CP}$ C … [$_{IP}$ SF = SUBJ … [$_{NumP}$ ~~SUBJ~~ …   cf. (9d)

'High' NP-movement of subjects (nominative or quirky), then, involves at least two distinct steps, movement into the vicinity of Pers, for person matching, and further movement from there into the vicinity of C, for matching of the EPP feature.[10]

    Scandinavian expletives offer a similar kind of evidence in favor of splitting between EPP and person matching. The evidence comes from the fact that Mainland Scandinavian expletives 'invert' with the finite verb in the same way as regular subjects, whereas Icelandic expletives can only show up clause-initially (Thráinsson 1979, see also e.g. Platzack 1987, among very many others):

(11) a.   **Det** blev skjutet tre älgar igår.   Swedish
          it.N.SG was shot.N.SG three mooses yesterday
          'There were three mooses shot yesterday.'

      b.   Igår blev *(**det**) skjutet tre älgar.
          yesterday was (it) shot three moose

      c   Blev *(**det**) skjutet tre älgar igår?
          was (it) shot three moose yesterday

(12) a.   **Það** voru skotnir hvalir í gær.   Icelandic
          it were.3.PL shot.N.PL.M whales.N.PL.M yesterday

      b.   Í gær voru (***það**) skotnir hvalir.
          yesterday were (it) shot whales

      c.   Voru (***það**) skotnir hvalir í gær?

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[9] In passing, notice that this simply escapes the problem, inherent to many analyses of Stylistic Fronting, of having Spec,IP doubly occupied in subject extraction clauses, by both a subject trace/copy and a stylistically fronted element (cf. Bošković 2003, who also distinguishes between the SF-position and the 'subject position').

[10] As we shall discuss in section 3.2, the C-category containing the EPP-feature is by necessity non-lexicalized in main clauses.

were (it) shot whales yesterday

As seen, the Swedish expletive is obligatory,[11] whereas the Icelandic one is excluded from a post-verbal position. Notice also that the neuter singular expletive controls participle agreement in Swedish (as indicated), whereas it has no agreement effects in Icelandic (where both the finite verb and the participle agree with the low nominative *hvalir'* whales').

   Also in subordinate clauses, the Icelandic expletive may only show up clause-initially:

(13) a.   … að **það** voru skotnir hvalir í gær.
            … that it were shot whales yesterday
      b.   … að í gær voru (***það**) skotnir hvalir.
            … that yestgerday were (it) shot whales

We have an account of these facts if the Swedish expletive is like a normal subject in matching Person (after having matched Number) and then moving on into the vicinity of C, to also match the EPP feature, whereas the Icelandic expletive is like the German datives in (5) above in being unable to match person, thus moving directly into the vicinity of C, where it matches only the EPP feature.

   On the present approach, then, 'to be a subject' is to match certain features, most importantly the Person feature and potentially also other φ-features and the EPP feature. We might wonder what the nature of the EPP feature is, and I shall return to that issue. However, at this stage of the discussion the important generalization is: Person and potentially also EPP are the driving forces behind the DP-Infl Connection. Nominative case is not a causal factor of the DP-Infl Connection.

   In the remainder of this paper I shall try to develop some understanding of why this is so. First (section 3), what is the nature and function of structural case? Second (section 4), why are Person and EPP, as opposed to case, driving forces of the computation? As we shall see, these are non-innocent questions, leading to substantial revisions of standard conceptions of the computation and clausal architecture (sections 4 and 5).

3. The structural cases *are* interpretable

In Chomsky's approach, structural case is *uninterpretable* and must thus delete under matching of φ-features (see Chomsky 2001: 6). The φ-feature matching or the Agree relation, between T and the nominative DP, in turn, triggers movement of the DP in case T has an EPP feature. Thus, as we noticed above, Chomsky still assumes a correlation between case and NP-movement, albeit only indirectly. In an interview with Belletti and Rizzi he expresses this idea in general terms (2002: 113):

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[11] As a matter of fact, Swedish expletive constructions show some variation in this respect, that is, the expletive is sometimes only optional in the post-verbal position (see Falk 1993).

So, the inherent Cases, the ones which are semantically associated, are really not an imperfection: they are marking a semantic relation the interpreter has to know about (like plurality on Nouns). On the other hand, why do we have Nominative and Accusative (or Ergative and Absolutive), what are they doing? They are not interpreted: nouns are interpreted exactly the same way whether they are Nominative or Accusative, and that is like inflectional features on adjectives or verbs: it looks as though they shouldn't be there … [but] they are there as perhaps an optimal method of implementing something else that must be there, namely dislocation.

In a sense, it is true, of course that structural case doesn't alter the interpretation of nouns – nor does inherent case for that matter (Sigurðsson 2003a). In another and a deeper sense, however, this is clearly on the wrong track. The LF features that are so commonly referred to as the abstract 'Cases' do not, of course, have any absolute interpretability, but they do have *relative* interpretability. In that respect these features are similar to e.g. Tense and Person.

Throughout the generative tradition, there has been a strong trend to mystify case that culminated in Burzio's Generalization, BG (see Burzio 1986: 178), saying that there can be no internal structural case (accusative) unless there is also an external thematic role. The generalization as such is obviously true.[12] In fact it is tautological truth, but the rationale behind it was never made clear. Why should there be a correlation between the external *role* and the internal *case*?

The question is: is there anything at all behind BG that is more interesting than tautological truth in general, say, the truth that my brother is the son of my parents? I believe there is, but Burzio was not 'allowed' to see it at the time, because of the credo that PRO is caseless. Once we accept the fact that PRO (or whatever it boils down to in the minimalism) indeed carries case (Sigurðsson 1991), the mystery vanishes, and we realize that BG was a 'historical accident'. The true correlation is not between a role and a case, but between the internal and the external cases, nominative and accusative. It is coined as the *Sibling Correlation* in Sigurðsson 2003a, saying that structural accusative is preconditioned by structural nominative whereas the opposite is not true:

(14) (Acc $\rightarrow$ Nom) & $\neg$ (Nom $\rightarrow$ Acc)

In other words, the relationship between the structural cases is similar to that between a younger and an older sibling, hence the label (there is no younger sibling without an older one, whereas being a first child does not imply having a younger sibling).

What this means is that the structural cases *are* meaningful in relation to each other, that is, nominative vs. accusative may be thought of as features that distinguish between EVENT PARTICIPANTS:

(15) a. Nominative: 0CASE = EVENT PARTICIPANT$_1$
      b. Accusative: 1CASE = EVENT PARTICIPANT$_2$

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[12] On a narrow LF understanding of the notion 'structural Case'. There are of course morphological inherent accusatives in e.g. Icelandic and default accusatives in e.g. English that do not fall under the scope of BG.

The 'digital' (0 vs. 1) nature of the structural cases is familiar from many other features of language, such as tense, person and binary branching. Plausibly, all linguistic features are binary or digital.

Since the structural cases *are* meaningful or interpretable in relation to each other, it comes as no surprise that we find low nominatives as in (3) above,[13] nor does it come as a surprise that nominative case is not an element of the DP-Infl Connection (except as a consequence of movement, driven by Person or EPP). The structural cases can be seen as 'indices' assigned to θ-roles vP-internally, $θ_C$, thereby making the roles visible to relations (Move/Agree/Match) with elements outside of vP.

This 'pure' or 'simple' understanding applies to only the abstract structural cases, that is to the relevant LF features or relations. The corresponding morphological cases are like other morphological categories in being hybrids, expressing various relations (nominative predicates, accusative DP adverbials, inherent argumental accusatives, and so on). Notice also that the inherent cases are more complex than the structural ones in the sense that they do not only distinguish between event participants but also specify their relation to the event.[14] This accords well with the fact that inherent case-marking is cross-linguistically much less common than is structural case-marking (see Blake 2001: 156ff.).

Many intriguing questions arise. Thus, it seems plausible to assume that NOM and ACC are merged higher than V and then matched by the θ-roles of V, by 'very low' NP-movement, so low that it is usually invisible in 'surface structure'. Possibly, the inherent cases are merged higher than the structural ones (vP-internally, though), subsequently being matched by 'structurally cased' θ-roles (leading to double 'case-marking': [DAT[NOM[θ]]], etc.). Intersting as these issues are, they cannot be dealt with here.

Introducing the notion of (absolutely) uninterpretable features into LF was a dubious step: Why would LF operate with features which the 'understanding interface' does not 'understand', only to eliminate them? By far the most urgent motivation for taking this step came from the structural cases, it seemed.[15] Having removed that motivation we can contend that there is no such thing as uninterpretable features in LF.

4. Grammar is event–speech matching

The central question that now arises is: *Why* is Person (in combination with other φ-features) so important in grammar? The answer I want to suggest is that it is for very much the same reasons as Tense is. Both Person and Tense, I argue, are basic computational elements, computing features of the propositional event in relation to features of the speech situation or the speech event. That is what grammar basically is: a computational device that *interprets*

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[13] As pointed out in Sigurðsson in press, all languages that have been studied in this respect seem to have at least some low nominatives (even English, to a rather limited extent though).

[14] That is, they are presumably matched against an 'extra' category, most commonly an aspectual one. Vocatives (at least in languages like Latin and Ancient Greek) are evidently matched against a still higher category that belongs to the speech event (presumably the logophoric patient, cf. section 5).

[15] Another one seemed to be provided by uninterpreted agreement features, but such features can be analyzed as PF features, given the approach to Agree developed in Sigurðsson 2004.

propositional event features in relation to speech features. It is *not* a device that deletes features.

4.1 Clausal architecture I: background

Ever since Chomsky introduced Aux into grammar (1957: 38-39), he has assumed a very 'slim' clause structure. Consider the following, incomplete historical sketch:

(16) a. **Aux**   Chomsky 1957, 1965
      b. **Infl**   Chomsky 1981
      c. **AgrS – T – AgrO**   Chomsky 1991, 1993
      d. **T – v**   Chomsky 1995: 355ff., and subsequent

The system in Chomsky 1991 and 1993 is 'rich' in comparison with the other systems suggested by him, but it is truly Spartan in comparison with the system suggested in Cinque 1999 (see also Julien 2002, with minor revisions), with its four mood categories, three tenses, six modalities, fourteen aspects and (spectacularly) single voice:

(17) 1-3   **Mood**:   speech act, evaluative, evidential
     4   **Modality**: epistemic
     5-6   **Tense**:   past, future
     7   **Mood**:   irrealis
     8-12   **Modality**: necessity, possibility, volitional, obligation, ability/permission
     13-16 **Aspect**:   habitual, repetitive(I), frequentative(I), celerative(I)
     17   **Tense**:   anterior
     18-27 **Aspect**:   terminative, continuative, perfect(?), retrospective, proximative, dura-tive, generic/progressive, prospective, SgCompletive(I), PlCompletive
     28   **Voice**   passive
     29-32 **Aspect**:   celerative(II), SgCompletive(II), repetitive(II), frequentative(I)

Given the (entirely plausible) kind of a research program Cinque pursues, there is in fact robust evidence for *many more* categories than these, that is, even his 'extravagant' system is arguably much too modest. Consider for instance some of the categories discussed in Palmer (2001) and even in Nida (1949: 166-169). Consider also two conceptually closely related but nonetheless very different approaches to the left edge of clausal structure, those of Rizzi (1997) and Poletto (2000), sketched in (18):

(18) a. Rizzi: Force – Top* – Foc – Top* – Fin – Infl
      b. Poletto: Ld – C – Wh – Infl

Obviously, our ideas about universal clausal architecture are tentative and our knowledge of the issue is limited, to say the least. The most interesting question here is not

the 'plain' matter of fact question of what the universal functional categories are – difficult and important as that question is – but rather the more delicate epistemological question of how we can possibly acquire even only *some* knowledge of the issue. Our methods of deciding what is a possible clause structure and what is not are evidently rather unsophisticated.

Chomsky's motivation for "eliminating Agr from UG entirely" (1995: 335) was clear enough: morphological agreement does not have any semantic import, hence there are plausibly no complex Agr elements at LF.[16] Evidently, however, he took the wrong turn. Instead of dispensing with Agr, we should split it into its components, minimally Person and Number. Similarly, Chomsky's 'Tense' is merely a convenient cover term for more elements, minimally Tense and Mood. In the working papers version of Derivation by Phase, Chomsky (1999, fn. 14) actually reintroduced Agr, saying that his account in terms of only T and v "should be restated" … such that it is "Agr and not T/v that is the locus of ϕ-features, Case, and EPP". In the final version of that paper, he is less explicit (or more cautious), saying: "For expository purposes, I … use T and C as cover terms for a richer array of functional categories …" (Chomsky 2001, fn. 8, see also Chomsky 2002: 123 on 'cartographic studies').

In Chomsky's own view, then, there are more functional clausal categories than just T and v. The question is how we can acquire knowledge of the "richer array of functional categories". Much as Cinque's (1999) adverb and word order criteria, morphological criteria may of course be of some help here. Thus, Icelandic offers striking evidence in favor of splitting the classical Infl into Tense, Mood, Number, and Person. This is illustrated in (19) for the plural past tense indicative and subjunctive forms of *fá* 'get'.[17] The subjunctive marker *-i-* is mostly invisible, but it is sometimes indirectly visible as a palatalization effect on a preceding *-g-* or *-k-,* indicated in spelling by the letter *-j-* (boldface below); the absence of an overt tense marker (compensated for by Ablaut in the stem) is of course due to the fact that the verb in question is strong:[18]

(19)

		V	T	M	Num	Pers			
a.		feng	-	-	u	m	=	*fengum*	(PAST.IND.PL.1)
b.		feng	-	-	u	ð	=	*fenguð*	(PAST.IND.PL.2)
c.		feng	-	-	u	-	=	*fengu*	(PAST.IND.PL.3)
d.		feng	-	i	u	m	=	*feng**j**um*	(PAST.SUBJ.PL.1)
e.		feng	-	i	u	ð	=	*feng**j**uð*	(PAST.SUBJ.PL.2)
f.		feng	-	i	u	-	=	*feng**j**u*	(PAST.SUBJ.PL.3)

Interesting and suggestive as facts of this sort are, their import is lessened by the fact that they are language-specific. This kind of evidence is obviously not available for English, for

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[16] There are in fact some cases of agreement expressing systematic meaning-form correlations (cf. e.g. some of the secondary predicate agreement facts discussed in Sigurðsson 2002), but these are clearly an epiphenomenon.
[17] Notice that the import of these facts does not rely on any special understanding of verb raising. No matter how we conceive of the correlation between movement and morphology, the facts irrefutably illustrate that Icelandic grammar distinguishes the subcomponents of the classical Infl. That is all that matters here.
[18] These facts are discussed in more detail in Sigurðsson 2001, also for the more opaque singular forms.

instance, nor is it even available for German, in spite of its relatively rich verb morphology and close genetic relationship with Icelandic.

However, the particular split in (19) is obviously not coincidental. It is not a mere accident that Tense, Mood and the ϕ-features all relate to features of the *speech event*, that is, the time/location of speech and the speech participants, primarily the 'speaker' (see Giorgi and Pianese 1997 on the speech event; cf. also Bianchi 2001, 2002). This becomes natural on the assumption or hypothesis that grammar adheres to the COMPUTATION PRINCIPLE in (20):

(20)   Grammar computes (or interprets) propositional event features in relation to speech event features

Schematically, we can express this as follows, where 'Event' and 'Speech' are shorts for 'propositional event' and 'speech event', respectively:

(21)   Event $\boxed{\Leftrightarrow \text{ Computation } \Leftrightarrow}$ Speech

That is, grammatical *features* compute or interpret event features in relation to speech features; A $\leftrightarrow$ B denotes the relation 'A is computed/interpreted in reation to B':

(22)   Event f $\leftrightarrow$ Grammatical f $\leftrightarrow$ Speech f

Any regular event feature is computed in relation to a grammatical feature (overt or silent), and the grammatical feature is in turn computeted in relation to a speech feature.[19] This is in essence the displacement property of language, that is, the property that makes it possible for humans (as opposed to most or all non-human animals) to communicate about events that are displaced, not present in the speech event (cf. Hockett 1960; Hauser 1997: 211; Di Domenico 2003).

The Reichenbachian approach to tense (Reichenbach 1947) is the only generally acknowledged and well studied instantiation of the Computation Principle (see Hornstein 1990, Giorgi and Pianesi 1997, Cinque 1999, Julien 2001 and many others). The basic Reichenbachian insight is often illustrated with the past perfect, as in (23):

(23)   John had eaten breakfast (before nine).

The tense reading of examples of this sort is usually analyzed as E_R_S, that is: event time (E) before reference time (R), and reference time, in turn, before speech time (S). In other words, the event of 'eating breakfast' happened before the reference time of the grammatical tense (here past), and the time of the grammatical tense was prior to the time of speech.

The event time, thus, is interpreted or valued in relation to the grammatical tense (reference time), which in turn is interpreted in relation to the speech time. We may sketch

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[19] A difficult question that I leave open is what counts as a 'regular' event feature (and not as an idiosyncratic or an encyclopedic lexical feature).

this as in (24), where E_T is the event time, T is the grammatical tense, and S_T is the speech time:

(24) $E_T \leftrightarrow T \leftrightarrow S_T$

This is widely acknowledged, of course (see e.g. Giorgi and Pianese 1997: 27ff., Cinque 1999: 81ff.). Amazingly, however, another closely related fact has not been generally noticed, namely the fact that Person and other φ-features have a parallel status as grammatical Tense. That is, these grammatical participant features (P) relate event participants, E_P, and speech participants, S_P:

(25) $E_P \leftrightarrow P \leftrightarrow S_P$

Importantly, the inherent speech participants are *not* simply the speaker and the addressee, as commonly assumed. Rather, they are the agent and the patient of speech, i.e. logophorically active vs. passive selves. Consider the very simple examples in (26):

(26) a.   **I** love **you**.
            1SG = the speaker = the logophoric agent (and also the 'loving one')
            2SG = the addressee = the logophoric patient (and also the 'loved one')
      b.   John said to me: "**I** love **you**."
            1SG = John = the logophoric agent (and also the 'loving one')
            2SG = the speaker = the logophoric patient (and also the 'loved one')

As this illustrates, the constant meaning of the personal pronouns is not speaker vs. addressee, but logophoric agent vs. logophoric patient.
        Let us refer to these logophoric roles or features as *λ-features*. As we have seen, the cases 'index' or distinguish between event participants at a vP-internal level, that is, event participants are cased θ-roles or θ-features, $\mathbf{\theta_C}$. The linking or grammatical function of person and other φ-features may thus be sketched as follows:

(27) $\theta_C \leftrightarrow \phi \leftrightarrow \lambda$

In feature based syntax, where labelling and X'-theoretic conventions are dispensed with (Collins 2002, see further below), an argument is obviously *not* a 'position' nor is it a 'DP'. rather, it is *a set* of relationally interpreted features (typically matched by a single PF element):

(28) 'Argument' = $\{\theta_C \leftrightarrow \phi \leftrightarrow \lambda\}$

On this understanding, inherent features of the speech event are *not* 'pragmatic' (see further section 4). They are *syntactic*, indispensable elements in LF, crucially entering the

computation of every single clause. Linguistic expressions generally have *no truth value* unless they are computed in relation to the speech event and its components.[20]

The speech event, then, is not outside clausal structure, it is crucially syntactic, and we must revise our ideas of syntax accordingly. There has been a strong trend in linguistics since the 1970s to escape this conclusion, probably for various reasons. Perhaps the simplest and also the most important reason is that incorporating the speech event into clausal structure raises some extremely hard questions, so hard that we do not even seem to have any tools to deal with them. It is high time that we start making some of the tools.

4.2 Clausal architecture II: extensions

The first of our hard questions is, simply, how the inherently silent speech event relates to the audible clause. The plain approach is to assume that any utterance is a Speech Phrase, SP, containing elements of the speech event in its left sphere and dominating the audible clause:

(29) $[_{SP} \ldots [_{IP} \ldots$

Another obvious questions is what elements the 'left sphere' of SP contains. Inevitably, it contains basic elements of the minimal speech event, the time and location of speech and the inherent speech participants, that is, the logophoric agent and patient, λ_A and λ_P. In addition, I assume it contains the left sphere elements of the CP or the ForceP in the approach of Rizzi (1997), minimally Force, Top and Fin(iteness).

The time and location of speech may either be thought of as two distinct features, S_T and S_L, or as a single feature, $S_{T/L}$, which would be compatible with the localist view of deictic relations (cf. Lyons 1977: 718ff.). For expository ease I shall start out by assuming the 'simpler', localist view ($S_{T/L}$), later turning to reasons that suggest that the non-localist, 'split' view (S_T and S_L) is more to the point.

$S_{T/L}$ I take it, is the Fin(iteness) feature of Holmberg and Platzack (1995), Rizzi (1997), Platzack and Rosengren (1998) and others. The minimal, inherent speech event may thus be described as in (30):

(30) Speech event $\supset$ $\{S_{T/L}=Fin, \{\lambda_A, \lambda_P\}\}$

However, it is clear that the speech event may be EXTENDED so as to incorporate elements from discourse or other elements that are given in the speech situation (see von Heusinger 2002 on pronominal salience). Some languages have proximate morphological marking for nominal or adverbial elements of this sort.[21] Generalizing over all proximate objects as 'Px', we can describe the extended speech event as follows:

(31) Extended speech event $\supset$ $\{S_{T/L}=Fin, \{\lambda_A, \lambda_P\}, \{Px_n, Px_{n+1}, \ldots\}\}\}$

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[20] Tautological truths might be an exception, but it is not obvious to me that they really are.

[21] Certain proximate adverbials in Icelandic are marked with a *-na* suffix, Swedish uses 'there' and 'here' in combination with proximate pronouns ('he there', etc.) and similar phenomena are found in e.g. English and German. For a more general and interesting system, see Bickel et al. 1999 on the Maihtili verb inflection system.

Assuming that proximate objects are 'topics', we can to an extent unify this idea with the system proposed by Rizzi (1997), as illustrated in (32):

(32) [$_{SP}$ λ_A … Force … Top … $S_{T/L}$=Fin [$_{IP}$ … Pers … Num … M … T …

For simplicity, I do not take the logophoric patient (the 'addressee') into account and show only one Top (notwithstanding the fact that a clause may have more than one proximate elements).[22]

Only a while ago it would have been tempting to analyze either Force or $S_{T/L}$=Fin as a 'head' of the 'speech predicate', taking the logophoric agent and patient as external and internal arguments, respectively. Also, one would have wanted to see the SP as a 'maximal projection' of some 'head', say Force (cf. Rizzi 1997) or $S_{T/L}$=Fin. In feature based syntax, as pursued here, however, X'-theoretic notions like 'head', 'specifier' and 'maximal projection' make no sense. Labelling and X'-theoretic conventions are theoretical artifacts that must be dispensed with (see Starke 2001, Collins 2002).[23] That is:

(33) THE FEATURE PRINCIPLE: LF consists of (at least partly) ordered features that are matched in PF by more or less complex material[24]

Thus, whether a feature is matched by a single 'word' or a complex 'phrase' is, as such, unimportant. Rather, matching is controlled by minimality:

(34) MATCHING MINIMALITY: A category F that merges with the structure X is matched by the closest substructure of X that contains an accessible f, f a potential matcher of F

This does not tell us what is a 'possible substructure' and what is not. If remnant movement is an option in grammar, is should plausibly be understood in terms of matching minimality. If so, almost anything would count as a 'possible substructure' (see Kayne 2003), but I leave the question open here.

As in Chomsky (2000, 2001), feature matching is in a sense 'anti Spec-head', that is, it takes place under c-command, where the 'probe' looks for a matcher or a 'goal' within its c-commanded sister. Arguably, matching is an integrated part of Merge, applying whenever Merge applies (see the discussion in Sigurðsson 2004). It follows that for instance (the IP external) Fin/$S_{T/L}$ is matched by some element within IP.

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[22] An obvious possibility to explore is that the facts of clitic placement in for instance Romance languages (cf. e.g. Poletto 2000) are largely due to overt λ-matching, but I am in no position to pursue the issue.

[23] Cf. Chomsky (2002: 151): "X-bar theory is, I think, probably wrong".

[24] A central issue that I cannot really discuss here is how the ´lexicon' relates to 'grammar'. Our lexica are clearly the meeting place of universal linguistic features (i.e. LF features in the sense argued for in Sigurðsson 2003b) and of features of other, non-linguistic subsystems of mind (inference, conscious thought, classification, …). Problematically, this seems also to apply to an extent to 'grammar' in the conventional sense, that is, individual languages 'grammaticalize' or 'conventionalize' features, such as social class, that would seem to be features of e.g. conscious thought rather than part of Universal Grammar (see e.g. Bickel et al. 1999, Chandrasena Premawardhena 2002). Further research might however reveal that conventions of this sort can be analyzed in terms of abstract features of language.

A difficult and a much discussed question is whether movement is triggered by matching or by an independent EPP feature. Chomsky opts for the latter analysis, assuming that a probe, for instance T, triggers movement to its left (i.e. into its 'specifier') if it is accompanied by an EPP feature (see e.g. Chomsky 2001: 8-9). I take the opposite view here (see also Sigurðsson 2004), assuming that movement is motivated by Merge/Agree: If X is to be merged with a 'selecting' F,[25] its edge features must match the requirements of F and this is accomplished by movement of an element containing the matching features to the edge of X. Accordingly, a subject or a stylistically fronted element is not attracted to Edge,IP by an EPP feature of an Infl feature like Tense or Person. Rather, movement to Edge,IP is driven by merger of IP with its 'selector', $Fin/S_{T/L}$, that is, an element moves to Edge,IP 'in order to' meet the matching requirements of Fin. – Plainly, Fin is the 'mysterious' element that triggers EPP effects, such as 'high' NP-movement, merger/move of expletives and Stylistic Fronting (recall the discussion of these phenomena in section 2 and see further the next subsection).

On this approach, sisterhood and matching (under c-command) are the *only* structural relations. There are *no external elements*, that is, so-called 'specifiers' and 'adjuncts' (which would have moved and/or merged to the left of their selector) are nonexistent. Rather, 'specifiers'/'adjuncts' are 'internal' or *to the right* of some selector or 'mergee', such as $Fin/S_{T/L}$. The general picture is sketched in (35), where the square brackets correspond to what we are used to think of as maximal projections:

(35) … $Selector_1$ [$_{Selectee1}$ Edge,$Selectee_1$, $Selector_2$ [$_{Selectee2}$ Edge,$Selectee_2$, …

A 'real' example follows (where IP=PersP, NumP, M(ood)P and TP are X'-theoretic notions, used here for covenience only):

(36) a.   [$_{SP}$ … Fin [$_{IP=PersP}$ SUBJ, Pers [$_{NumP}$ ~~SUBJ~~, Num [$_{MP}$ ~~SUBJ~~, M [$_{TP}$ ~~SUBJ~~, T …
      b.   The derivation, where '+' denotes 'merges with':
            1   [$_{MP}$ M [$_{TP}$ SUBJ, T …
            2   [$_{MP}$ SUBJ, M [~~SUBJ~~, T …
            3   Num + [$_{MP}$ SUBJ, M [~~SUBJ~~, T …
            4   [$_{NumP}$ SUBJ, Num [$_{MP}$ ~~SUBJ~~, M [~~SUBJ~~, T …
            5   Pers + [$_{NumP}$ SUBJ, Num [$_{MP}$ ~~SUBJ~~, M [~~SUBJ~~, T …
            6   [$_{PersP}$ SUBJ, Pers [$_{NumP}$ ~~SUBJ~~, Num [$_{MP}$ ~~SUBJ~~, M [~~SUBJ~~, T …
            7   Fin + [$_{PersP}$ SUBJ, Pers [$_{NumP}$ ~~SUBJ~~, Num [$_{MP}$ ~~SUBJ~~, M [~~SUBJ~~, T …

In 1, the derivation has already come as far as merging M with TP, step 2 involves subject raising to Edge,MP, where the subject features can match the requirements of a potential selector, step 3 merges MP with Num, the number value of the subject in Edge,MP matching Num, as required, and so on.

For expository convenience I am assuming that subject raising to the local edge each time takes place prior to the next merger, an approach that has a look-ahead flavor to it (or

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[25] 'Selection' is another term for abstract Agree (Sigurðsson 2004; see also, in somewhat different terms, Frampton and Gutman 2000).

presupposes a "crashing design" of grammar, but see the discussion in Frampton and Gutman 2002 against such design). Alternatively, merger precedes subject raising, the subject subsequently 'tucking in', where it meets the matching requirements of the merged category. Either way, long distance matching (i.e. matching that does not trigger overt movement) needs to be accounted for. It is arguably accommodated by Matching Minimality, as formulated in (34) above, but I shall not pursue the issue here. It will however turn up again (in connection with speech time matching by Tense).

In many cases, even normally, the 'selector' or the merged category is a silent feature, as we shall see.

4.3 Evidence: the mysterious First Position Constraint

The distribution of the expletive *það* 'there, it' in Icelandic offers interesting evidence in favor of the present approach. As mentioned in section 2, it is allowed in clause-initial position only:

(37) a.   **Það** hefur verið talað um þetta.
          it has been talked about this
          'This has been talked about/discussed.'
     b.   Hefur (**það*) verið talað um þetta?
          has (it) been said talked about this

Let us refer to this restriction as the FIRST POSITION CONSTRAINT, FPC. It has been widely discussed in Scandinavian syntax over the last quarter of a century (Thráinsson 1979, Rögnvaldsson 1984, Platzack 1987, Ottósson 1989, Sigurðsson 1989, Magnússon 1990, Rögnvaldsson and Thráinsson 1990, Kosmeijer 1991, 1993, Falk 1993, Vikner 1995, Holmberg and Platzack 1995, Hróarsdóttir 1998, Holmberg 2000, and many others). The best known approach to it (Platzack 1987, cf. 1986: 224 ff.) is that the Icelandic expletive differs from expletives in most related languages in being successfully generatad (merged) only in Spec,CP, hence never having access to (or being able to move through) Spec,IP. However, if this is true we would not expect *það* to be able to show up in subordiante clauses, contrary to fact:

(38) a.   Ég veit að **það** hefur verið talað um þetta.
          I know that it has been talked about this
          'I know that this has been talked about/discussed.'
     b.   Ég veit að um þetta hefur (**það*) verið talað.
          I know that about this has (it) been talked

In order to account for these distributional facts, Platzack (1987) proposed the well-known Recursive CP Analysis, claiming that subordinate clauses with *það* have an extra CP-layer. This account may be schematized as follows:

(39) a. ^{ok}[$_{CP}$ *Það* verb [$_{IP}$ __ …

    b. ^{ok}[$_{CP}$ að [$_{CP}$ *það* verb [$_{IP}$ __ …

    c. *[$_{CP}$ (X) verb [$_{IP}$ *það* …

As seen, this allows *það* in clause initial position in both main and subordinate clauses while correctly excluding it from a clause internal, post-verbal position. However, this predicts that *það* should be found in only those subordinate clauses that can plausibly be analyzed as 'embedded main clauses' (see the discussion in e.g. Platzack 1987, Holmberg and Platzack 1995, Vikner 1995). As demonstrated in great detail by Magnússon (1990), however, this is empirically refuted, even quite robustly so: *það* is allowed in most types of subordinate clauses.[26] Three examples follow; as shown, subordinating force elements like *hvort* 'whether', *ef* 'if', *þegar* 'when', etc. allow an optional *að* 'that' (as described in Thráinsson 1980):

(40) a. Ég veit ekki [**hvort (að) það** hefur verið talað um þetta].

        I know not whether (that) it has been talked about this

        'I don't know whether this has been discussed.'

    b. Ég verð hissa [**ef (að) það** hefur verið talað um þetta].

        I will-be surprised if (that) it has been talked about this

    c. Ég verð glaður [**þegar (að) það** hefur verið talað um þetta].

        I will-be glad when (that) it has been talked about this

In view of the syntactic distribution of *það*, Ottósson (1989) developed an alternative, generalized Spec,IP analysis of *það*, claiming that main clauses with *það* are plain IPs, not CPs:

(41) a. ^{ok}[$_{IP}$ *Það* verb …

    b. ^{ok}[$_{CP}$ Complementizer [$_{IP}$ *það* verb …

The problem with this approach as it stands, however, is that it offers no account of the central distributional fact, namely the First Position Constraint:

(42) *[$_{CP}$ (X) verb [$_{IP}$ *það* … !!!

If *það* is allowed in a main clause non-verb-second Spec,IP, (41a), and in a subordinate Spec,IP (locally c-commanded by a complementizer in Comp, (41b)), why is it then not allowed in a main clause verb-second Spec,IP (locally c-commanded by a verb in Comp, (42))? It would be 'equally' located in Spec,IP in all these cases.

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[26] Basically, it is excluded in 'subject-gapped' clauses, that is, relatives, interrogatives, etc. with a 'subject gap'. As will be discussed shortly, the Icelandic expletive signals that the proposition contains either no participant or only a speech event ABSENT one. In subject-gapped clauses the 'gap' necessarily refers to a participant that is PRESENT in the (extended) subordinate speech event, hence the blocking of the expletive (as opposed to Stylistic Fronting).

The irrefutable fact that linguists have not been willing or able to appreciate is simple: The *main-clause initial null*, as it were, is like an overt subordinating complementizer in 'licensing' *það*. As sketched in (43), we have an account of this, if the complementizer *að* lexicalizes Fin (cf. the analyses in Rizzi 1997, Platzack and Rosengren 1998), whereas Fin in main clauses is empty:

			Force	Fin		
(43)	a.	Main clauses:	Ø	Ø	[*það* …	
	b.	Declarative subordiantion:	Ø	*að*	[*það* …	'that'
	c.	Interrogative subordination	*hvort*	(*að*)	[*það* …	'whether'
	d.	Conditional subordination:	*ef*	(*að*)	[*það* …	'if'
	e.	…				

In all instances, then, *það* merges in or moves to Spec,IP 'in order' to match Fin – and we have an account of the mysterious First Position Constraint, after all.

The question arises when Force and Fin may be lexicalized and when they may not. Plausibly, these elements are silent by necessity in main clauses (although they are matched by phonological items which they c-command): Plainly, no utterance is possible without being anchored in a silent speech event. This is even true of pragmatic 'PF shortcuts' like *Huh?* (≈ e.g. 'What did you say?') and *Aha!* (≈ e.g. 'I told you so!'). The possible interpretations of PF shortcuts of this sort are severely limited, much more so than one would expect on the basis of mere, non-linguistically limited pragmatics: their meaning largely consists of the meaning of an intonationally matched (and spelled-out) Force plus the meaning of other (silent) elements of the speech event.

While main clauses are interpreted or computed in relation to a *primary* speech event, subordinate clauses are computed in relation to a *secondary* speech event that is *bound* by another event. Two basic possibilities arise: the 'binder' may be the primary speech event, or it may be a propositional event.[27] In the first case, the subordinate clause is indicative in a language like Icelandic, in the second case it is subjunctive:[28]

(44) a. Jón vissi ekki að Pétur **fór** sama dag.
John knew not that Peter left.IND same day
'John didn't know that Peter **left/had left** the same day.'

b. Jón vissi ekki að Pétur **færi** sama dag.
John knew not that Peter left.SUBJ same day
'John didn't know that Peter **was leaving/would leave** the same day.'

In both cases, the past tense *fór/færi* 'left' is computed in relation to the secondary speech time of the subordinate clause, S_{T2}, the difference being that S_{T2} has the same value in (44a)

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[27] This is a simplification since it is actually the individual features of a secondary speech event that are bound by individual features of another event (for some initial observations, see section 5).
[28] There are some intriguing differences with respect to the subjunctive/indicative distinction between e.g. German, Icelandic and the Romance languages that I shall not address here. For a more general discussion, see Palmer (2001: 112ff.).

as the primarily speech time of the main clause, S_{T1} (hence both the event of leaving and the main clause event of knowing are past with respect to S_{T1}), whereas S_{T2} is past with respect to S_{T1} in (44b) but simultaneous as the past main clause event time, that is, to the time of knowing, E_{T1}. Accordingly, the event of leaving in (44b), E_{T2}, gets simultaneous or even future reading with respect to the main clause event time of knowing, E_{T1} (much as the basic present tense often gets future reading in indicative main clauses; for a discussion, see Sigurðsson 1990a). In short, the speech event of subordiante clauses is secondary in the sense that it is anaphoric or dependent on another event, either a superordinate propositional event or the primary speech event. – I shall return to secondary speech event binding in section 5.

Plausibly, the anaphoric speech event of subordinate clauses differs from the primary speech event in typically being at least partly lexicalized, by 'speech anaphoric' complementizers, like *that*. As seen in (43) above, this is what I assume.

Two further interesting issues arise here. The first one is the fact that Stylistic Fronting is like *það* in also obeying the First Position Constraint (Sigurðsson 1997, Holmberg 2000), in both main and subordinate clauses:

(45) a. **Talað** hefur verið um þetta.
          talked has been about this
          'This has been talked about.'
      b. *Hefur **talað** verið um þetta?
          has talked been about this

(46) a. Ég veit að **talað** hefur verið um þetta.
          I know that talked has been about this
          'I know that this has been talked about.'
      b. *Ég veit að um þetta **talað** hefur verið.
          I know that about this talked has been
      c. *Ég veit að um þetta hefur **talað** verið.
      d. Ég veit að um þetta hefur verið talað.

This is accounted for if Stylistic Fronting, like the expletive, matches an EPP feature, roughly as in Holmberg's (2000) approach, that is, the Fin feature in the present approach.

Another issue that is of interest in this connection is that Icelandic PRO infinitives do not allow any kind of 'left edge lexicalization', not even by Stylistic Fronting (SF). Compare the finite clauses in (47) to the non-finite ones in (48):

(47) a. **Það** var <u>sagt</u> fróðlega frá málfræði.
          it was told interestingly about linguistics
          'People/Someone spoke interestingly about linguistics.'
      b. **Sagt** var __ fróðlega frá málfræði.   SF
          told was interestingly about linguistics
          'People/Someone spoke interestingly about linguistics.'

(48) a. Að vera <u>sagt</u> frá málfræði er fróðlegt.
          to be told about linguistics is interesting
      b. *Að **manni** vera sagt frá málfræði er fróðlegt. / ***Manni** að vera …
          to one.DAT be told about linguistics is interesting
      c. *Að **sagt** vera frá málfræði er fróðlegt. / ***Sagt** að vera …   SF

While the ungrammaticality of (48b) might perhaps follow from some extended version of the standard Case account of PRO, the ungrammaticality of (48c) is left unaccounted for under such an approach. If 'left edge lexicalization', on the other hand, involves matching of the Fin feature, as in the present approach, then such matching is plausibly excluded in PRO infinitives and the ungrammaticality of both (48b) and (48c) is accounted for. – See also Platzack and Rosengren (1998) on imperatives.

Non-arbitrary PRO evidently shares a speech event with its controller, whereas a lexicalized subject must be anchored in 'its own' speech event (free or bound). The non-lexicalization of PRO follows directly without any reference to case, a highly desirable result in view of the well-known PRO case facts of Icelandic (Sigurðsson 1991).

If this understanding of finiteness phenomena is on the right track, however, Fin may be matched by very heterogeneous kinds of elements:

(49)   Fin (EPP) is matched by:
      a. Ordinary referential subjects (nominative or quirky) in languages like English, Mainland Scandinavian (MSc) and Icelandic.
      b. Expletive subjects like English *there* and MSc *det*, that is, expletives that are evidently φ-feature specified; more exactly, these elements are φ-feature specified by default as third person singular, [-1p, -2p; -Pl].
      c. Expletive non-subjects like Icelandic *það*, that is, expletives that are entirely un-specified for φ-features.
      d. 'Quirky' DPs of the German type, discussed in section 2.
      e. Various kinds of stylistically fronted elements in a language like Icelandic: participles, infinitives, adverbs, particles, … (see Maling 1980, Holmberg 2000).

This might be accommodated if Fin is like other *basic categories*, such as Tense and Person, in being matched by more than one *value*. Recall that Fin in the present approach is $S_{T/L}$, the time and location of speech. Plausibly, the time/location of speech is matched by elements that are either PRESENT (or HERE/NOW) or ABSENT in relation to the speech event, [+/-here] in a binary feature system (IN and OUT in the terminology of Di Domenico 2003). If so, the facts in (49) are not as chaotic as they might seem, at first sight. While ordinary 1st and 2nd person subjects as well as (most) definite 3rd person subjects are PRESENT (or 'IN') in the (extended) speech event, expletive elements like English *there* and Icelandic *það* 'signal' that the propositional event contains a participant (θ-feature/role) that is 'speech event ABSENT' (English *there*) or that it contains no 'speech event PRESENT participant' (English *it*, Icelandic

það), that is, either only an ABSENT participant or no participant at all.[29] Consider (the well-known type of facts in) (50):

(50) a.   *There is a man sitting.
     b.   There is a man sitting in the garden.

The propositional event of sitting is PRESENT with repsect to the speech event in (50a), and hence the expletive *there* leads to a contradiction, signalling that this 'present sitting' contains a participant that is speech-event ABSENT. In a clause like *I am sitting* or *He is sitting*, this contradiction does not arise, nor does it arise in (50b), where the adverbial *in the garden* explicitly marks the event of sitting as being ABSENT ('not HERE, but in the garden') hence compatible with an ABSENT participant.[30]

As this suggests, propositional events are like participants in being either PRESENT or ABSENT in relation to the speech event. Since Stylistic Fronting usually fronts an element that either wholly or partly lexicalizes the propositional event (main verb participles, infinitives, particles), it seems plausible to assume that it (in e.g. (45a), (46a), (47b)) matches Fin, by fronting an ABSENT 'event category'. This accords well with the fact that purely temporal auxiliaries, as opposed to e.g. aspectual auxiliaries, cannot usually be stylistically fronted (see Jónsson 1991, Holmberg 2000: 468ff.).[31]

There is a matching hierarchy with respect to Fin, such that referential subjects (PRESENT participant) take precedence over expletives (ABSENT participant or NO participant), which in turn take precedence over Stylistic Fronting (ABSENT event):[32]

(51)   Referential subject >> Expletive >> Stylistic Fronting

Notice that if an expletive is part of the numeration, Stylistic Fronting becomes impossible:

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[29] It follows from this approach that expletives do have ('negative') semantic import and must thus be included in the numeration, contra e.g. Bošković 2002.

[30] An interesting phenomenon is that 'removed' tenses do not license clauses like *There was a man sitting.*, *There had been a man sitting.*, etc. This accords well with Fin(iteness) actually being speech location rather than speech time, an issue I'll return to shortly.

[31] Thus, the temporal *verið* 'been' usually resists SF (type *"… that been had read") , whereas progressive *verið* 'being' fronts with ease (type "(the book) that been was to read" = 'that was being read'). – In contrast, fronting of the negation is not obviously subsumed under this understanding of Stylistic Fronting (type "(the book) that not had been read"). This suggests that the order Neg-Tense is not due to SF but to absence of verb raising across Neg, a more widespread phenomenon in Icelandic than standardly assumed (see Angantýsson 2001).

[32] In addition, there is a more fine-grained hierarchy with respect to Stylistic Fronting as such, as was discovered by Maling (1980). – Notice however that hierarchies of this kind are plausibly 'unreal' in the sense that they do not have an independent status but follow from more general principles of grammar, above all the Minimal Link Condition, MLC. Thus, the reason why ordinary subjects take precedence over expletives as EPP-matchers is plausibly that person must be matched (the subject thereby becoming the closest possible candidate for subsequent EPP-matching). Similarly, the reason why the Icelandic expletive takes precedence over SF as an EPP-matcher is arguably that EPP-matching is the sole possible function of the expletive (i.e., not having it match EPP leaves it totally 'lame' in the structure, hence excluded by economy). – On this view, it follows that SF should be categorically excluded in languages like the mainland Scandinavian ones, that have expletives that match Number and Person (thereby raising above other potential EPP-matchers in the structure, hence excluding them as EPP-matchers by MLC).

(52) a. **Talað** hafði verið __ um málið.
          talked had been about matter.the
          'The matter had been discussed.'

      b. **Það** hafði verið <u>talað</u> um málið.
          it had been talked about the matter
          'The matter had been discussed.'

      c. *Talað** hafði <u>það</u> __ verið um málið.
          talked had it been about matter.the

While the ungrammaticality of (52c) is as expected, the grammaticality of (52b) is interesting. It illustrates that a lexical item like the participle *talað* 'talked' need not match a feature, here Fin (EPP), even though it can do so (as evident by (52a)). This would seem to contradict the principle of Full Interpretation, "stating that there can be no superfluous symbols in represenatations" (Chomsky and Lasnik 1995: 27). However, there is another way of looking at this. As mentioned above, both the expletive and stylistically fronted elements have the value [-here]. Thus, while only the expletive matches Fin in (52b), the [-here] value of the participle might be sanctioned by virtue of being in the scope of (or 'agreeing' with) the [-here] value of the expletive. This is speculative, and I leave the issue at that.

Interestingly, Fin cannot usually be matched by Tense:

(53) *Had John left in anger. /*Would John leave in anger. /*Left John in anger.

Similar cases can be found in other Germanic languages, though, (see e.g. Sigurðsson 1990b, Mörnsjö 2002, Magnusson 2003), but they are exceptional and always special and should obviously not be accounted for by introducing a generally available option of Fin-matching by Tense.[33]

This is surprising on the localist view of temporal deixis, whereas it is to be expected if the time and location of speech are distinct features, S_T and S_L, as sketched below:

(54) $[_{SP} \lambda_A \dots \text{Force} \dots \text{Top} \dots \mathbf{S_T} \dots \mathbf{S_L} = \text{Fin} [_{IP} \dots$

On this view,[34] EPP phenomena involve matching of *speech location*, S_L=Fin, by [+/- here] participants or events. Thus, it is not suprising that expletives typically derive from items that denote an ABSENT location (*there*-type expletives) or an ABSENT participant (*it*-type epletives),[35] but not from items that denote ABSENT time ('*then*-type' expletives, as it were).

Notice that the problem of long distance matching, briefly mentioned at the end of section 4.2, now turns up again: If nothing further happens, IP-internal Tense matches S_T at distance, across S_L= Fin. This is subsumed under Matching Minimality, as formulated in (34)

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[33] So-called Narrative Inversion, however, is often described as having the effect of a special 'temporal extension' or 'discourse cohesion', which makes sense if it does involve exceptional Fin-matching by Tense. It is largely or exclusively confined to certain written genres in Icelandic (see Sigurðsson 1990b: 46). On the other hand, most of the Swedish verb-initial orders discussed by Mörnsjö (2002) arguably or obviously involve PF deletion (in contrast with the more 'Icelandic-like' Older Swedish examples in Magnusson 2003).

[34] Which accords with the Feature Uniqueness Principle, suggested in Sigurðsson 2000.

[35] That is to say inherently ABSENT from the canonical, minimal (non-extended) speech event.

above. Alternatively, Tense raises across, S_L, into the vicinity of S_T. Raising of another category, into the vicinity of either Force or Top, yields V2 orders.

Even so, the parametric distinctions with repsect to Tense raising (VSO vs SVO/SOV, V2 vs non-V2) remain mysterious, and I shall not address them here.

5. Logophoric matching and speech event binding: some initial observations

The present approach raises many intriguing questions that cannot be properly dealt with here. Finally, however, I wish to briefly address logophoric matching and speech event binding, two phenomena that are of central importance in clausal computation but have not received any standard treatment within generative theory.

Logophoric matching of third person participants is not simple identity matching. In a clause like *He hit me*, the subject obviously does not match the logophoric agent, λ_A (or the logophoric patient λ_P) under identity, that is, *He* $\neq \lambda_A$ (and *He* $\neq \lambda_P$). The question arises whether there is any necessary relation at all between λ_A (or λ_P) and *He*, that is to say, a relation that is not 'merely' pragmatic. In my view, there can be no doubt that there is such a 'non-pragmatic' relation. Referring to propositional event participants simply as 'θ_C' (cased θ-roels) and abstracting away from the complications raised by 'non-personal' identificational categories like number, gender and (honorific) class, we get the following matching relations:

(55) a. $\theta_C = +\lambda_A$ $\rightarrow$ 1P
      b. $\theta_C = +\lambda_P$ $\rightarrow$ 2P
      c. $\theta_C = -\lambda_A, -\lambda_P$ $\rightarrow$ 3P

That is, in a clause like *He hit me*, there is nothing loosely 'pragmatic' about the correlation between the third person of the subject pronoun and the inherent logophoric roles (of the minimal speech event). On the contrary, the correlation is a strictly inferential relationship: if the referent of the event role is identical to the referent of λ_A we get 1st person, if it is identical to the referent of λ_P we get 2nd person, otherwise, we get 3rd person. There is of course no question that we are abstracting away from many important phenomena, but there is also no doubt in my mind that this is the 'instinct' we should rely on and pursue.

The interaction of person with number and inclusiveness, for example, raises widely discussed problems (see Panagiotidis 2002 and Cysouw 2002 for a recent discussion). The problems are at least partly resolved under the present understanding. *We*, for instance, is obviously not a plural of *I* in the sense that it denotes 'more than one speaker' (except perhaps under extremely rare and special circumstances). However, it *is* the plural of *I* in the sense that it denotes more than one potential logophorically active selves: 'I and others that could be in my footsteps as speakers/thinkers'. Thus *we* can mean 'I, John, Mary and you', but it cannot mean 'I and this book' and even not 'I and God'. That is, *we* is not simply augmental,

as often assumed; rather the 'augmented entity' must be one or more potential logophoric agents.[36]

Multiple argument feature matching is another even more difficult problem (that has nonetheless raised amazingly little interest).[37] It must be the case that not just subjects but all arguments enter into φ/λ-matching. Clausal structure, accordingly, contains more than, for example, just one Person feature or 'head'. Scandinavian Object Shift (cf. Thráinsson 1996, 2001) and the Person Case Constraint, PCC, suggest that the clause may contain at least 'object Person', PersO (or $Pers_2$), in addition to the usual 'subject Person', PersS (or $Pers_1$).

Let us consider this briefly for only the PCC. It says, basically, that if a clause contains both dative and accusative agreement or both a dative and an accusative clitic, then the accusative must be in the third person (see e.g. Bonet 1991, 1994, Boeckx 2000, 2003). The effect of this is often seen in e.g. Romance clitic constructions, as in the French (56):

(56) a.   Pierre **le** lui donna.
            P. it.ACC him.DAT gave
            'Pierre gave it to him.'
     b.   *Pierre **te**/**me** lui donna.
            P. you/me.ACC him.DAT gave

As pointed out by Boeckx (2000), this person/case limitation is reminiscent of the person constraint found in Icelandic Dat-Nom constructions (where the nominative may usually be in only the third person, as we saw in section 2). Much as the Icelandic agreement facts can be accounted for in terms of minimality with respect to PersS, the PCC in Romance examples like (56) can be accounted for in terms minimality with respect to PersO, as sketched in (57):

(57)   … X … PersO … [$_{vP}$ … Dat … Acc …

On the assumption that 1/2 person accusatives must mach PersO (which in turn enters λ-matching), we have a simple MLC account of the blocking effect of the intervening dative. Third person accusatives, on the other hand, might be like the German datives discussed in section 2 and also like the Icelandic expletive in that they only mach an EPP feature ('low EPP' here), indicated as X in (57).

There are evidently heavy restrictions on the number of φ/λ-matching computations per clause. If the possibilities were unlimited we would expect the number of possible arguments per clause to be unlimited as well, but this is obviously not the case:

(58)   *Jón mundi hafa selt mér það borgunar þinnar.
        John.NOM would have sold me.DAT it.ACC payment.GEN your.GEN

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[36] The second person is more complex (as seen by e.g. the fact that one can address God by the second person singular but not include him (or 'it') in the second person plural), but I shall not detail here.
[37] Thanks to Valentina Bianchi for bringing this issue to my attention.

There are more than one conceivable ways of accounting for restrictions of this sort, e.g. in terms of case or in terms or predicational event structure. No matter what account one opts for, these restrictions are not surprising in view of the extreme computational complexities that arise with a rising number of participants.[38]

Yet another relevant issue is how to account for ϕ/λ-matching of non-pronominal arguments. Consider (59):

(59) Peter said: "Bill loves Hillary".

The object *Hillary* is identified in relation to *Bill* ('the Hillary who is loved by Bill'), who in turn is identified in relation to the logophoric agent *PETER* ('the Bill of Peter's speech'). In all probability, the reference of both *Hillary* and *Bill* shifts if there is a shift of logophoric agent, say from *PETER* to *BUSH*: it does shift except when there is coincidental coreference. Moreover, the reference of *Hillary* probably shifts if the minimal subject shifts from *Bill* to, say, *George* ('the Hillary who is loved by George'). That is:

A   All arguments are computed in relation to a logophoric agent, indirectly or directly, and hence their reference shifts when there is a shift of logophoric agent (abstracting away from coincidental coreference).

B   Non-subjects are computed in relation to both their local subject and the logophoric agent.

These intuitions seem straightforward. In addition, of course, identification of non-pronominal arguments is 'pragmatic' in the sense that it requires knowledge of the clause-external context/world. In contrast to a commonly held view, however, such 'pragmatic identification' is *not* all there is to non-pronominal argument identification or interpretation. Crucially, all arguments are computed clause-internally, in relation to each other and in relation to the speech event components. This should be rather obvious, actually.

As discussed in section 4.1, examples like (60) illustrate that the inherent speech participants are not simply the speaker and the hearer but rather the logophoric agent versus the logophoric patient, λ_A and λ_P:

(60) a.   **I** love **you**.
      b.   **He** said to **me**: "**I** love **you**."

The direct speech in cases like (60b), is anchored in a 'new' speech event, unbound by the main clause speech event, hence the independent pronominal reference of the direct speech (for further discussion, in less technical terms, see Banfield 1982). In contrast, as mentioned in section 4.3, truly subordinated clauses in many languages involve a *secondary* speech event, *bound* with respect to the primary speech event of the main clause. More accurately,

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[38] Subordination and prepositions reduce computational complexity, an intriguing issue that I cannot address here. Let me just point out that this effect should arguably be captured by a *phase* notion applying at LF, not PF. Even so, this must be worked out in more detail, as there are also severe restrictions on subordination and the number of PPs per clause.

the individual features of a secondary speech event are bound by corresponding (valued) features of the primary speech event; hence the 'pronoun agreement' in cases like (61):

(61) **He** said to **me** that **he** loved **me**.

It is rather obvious that the difference between (60b) and (61) cannot be accounted for in terms of 'direct' binding relations between the overt arguments.

The difference is accounted for if the arguments of both the direct speech in (60b) and the subordinate clause in (61) must be matched or interpreted in relation to the silent or 'invisible' logophoric features of their local, embedded speech event. In (61), the logophoric features of the subordinate speech event are bound by the logophoric features of the matrix speech event, hence the 'constant' reference of the pronouns:

(62) $[_{SP} \{\lambda_A\}_i \ldots \{\lambda_P\}_k \ldots [_{IP} \ldots [_{SP} \{\lambda_A\}_i \ldots \{\lambda_P\}_k \ldots [_{IP} \ldots$

In (60b), on the other hand, the embedded logophoric features are bound by the matrix arguments, hence the 'shifted' reference of the pronouns:[39]

(63) $[_{SP} \{\lambda_A\}_i \ldots \{\lambda_P\}_k \ldots [_{IP} \ldots \mathbf{he_j} \ldots \mathbf{me_l} \ldots [_{SP} \{\lambda_A\}_j \ldots \{\lambda_P\}_l \ldots [_{IP} \ldots$

Notice that the indices in these structures are referential indices, not 'matching indices', as it were.[40] By using indices, however, I'm not committing myself to a representational approach instead of the standard derivational approach. The indices are descriptive tools, used here to highlight plain facts of language that any general linguistic theory has to take into account.

Speech event binding is a highly complex phenomenon, operating separately for different features, a fact that gives support to the present approach to the speech event as being complex, with many subcomponents. For example, as mentioned in section 4.3 (and as is well known since at least Enç 1987, cf. Reichenbach 1947), the reference time of subordinate clauses, which I take to be a secondary speech time, S_{T2}, is relative to the time of utterance, that is the matrix speech time, S_{T1}. Thus S_{T1} in (61) is prior to S_{T2} ($>S_{T2}$), whereas the subordinate event of loving, E_{T2}, in turn, is either simultaneous or prior to S_{T2}:[41]

(64) a. $S_{T1} > S_{T2} = E_{T2}$ (love)
       b. $S_{T1} > S_{T2} > E_{T2}$ (love)

In addition, of course, S_{T2} may either precede S_{T1} or be simultaneous to it. In a clause like *I heard that he loves Mary*, $S_{T2} = S_{T1}$, i.e. it is simultaneous to the utterance time, whereas S_{T2} may be later than the utterance time, $S_{T2} > S_{T1}$ (or $S_{T1} < S_{T2}$), in e.g. *He will demand of us that we dance*. In addition, the matrix event time, E_{T2}, may bind the secondary speech time

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[39] In some languages, e.g. Persian, regular subordinate clauses show the same shift of pronoun reference as does direct speech in languages like English (see Bianchi 2002 and the references there).
[40] With the exception of first and second person singular, matching of (or interpretation in relation to) λ-features does not involve or induce referential identity, as we have seen.
[41] This latter reading is marginal without a temporal phrase, e.g. 'a long time ago'.

(yielding embedded subjunctives, as we saw in (44b) in section 4.3 above), but, for simplicity, I am abstracting away from that as well as most other complexities that can arise in secondary speech event binding.

Logophoric long distance reflexivization in languages like Icelandic illustrates still further complexities that can arise in speech event binding. Thus, in a clause like (65), the reflexive *sig*, which is usually strictly clause bounded, may be bound by the matrix subject (notice that *María* may also be the binder, in which case the clause gets the reading 'John says that Mary shaves herself'):

(65) **Jón** segir að María raki **sig**/hann.
      John says that Mary shaves SELF/him
      'John says that Mary shaves him.'

The fact that the reflexive can be bound across a potential binder seems to blatantly violate standard conceptions of locality and the Minimal Link Condition. However, as shown by Thráinsson (e.g. 1990, see also Sigurðsson 1990a), the use of the long distance anaphor reflects on the mind of the matrix subject *Jón*, such that the subordinate event is seen from his point of view, not the plain speaker point of view. This is accounted for if the speech event contains *a point of view feature*, POW, that is usually bound by the logophoric agent, but may be bound by a superordinate subject in exactly those environments where long distance reflexivization is possible. If so, the anaphor in (65) is locally bound by an invisible POW in the secondary speech event, that feature in turn being bound by the matrix subject:

(66) $[_{SP} \{\lambda_A\}_i \dots [_{IP} \text{Jón}_k \dots [_{SP} \{\lambda_A\}_i \dots \text{POW}_k \dots [_{IP} \text{María} \dots \text{SELF}_k$

While both *María* and *Jón* are matched in relation to their local logophoric agent λ_A (as being distinct from it), the anaphor is matched in relation to POW_k.[42]

Interesting as these issues are, I cannot detail further about them here.[43] The preceding initial observations do not, of course, amount to a full-fledged formal theory of logophoric matching and speech event binding. Importantly, however, they illustrate that the program of developing such a theory is not only feasible but also an inevitable step in our quest of further understanding of grammar.

It is true, as pointed out by Chomsky (1992: 102, see also Jenkins 2000: 15ff.) that "the study of everything" is pointless; in fact, it is obviosuly impossible. However, disregarding logophoric matching and speech event binding is like disregarding the movements of Jupiter's moons: it blocks our sight, instead of facilitating inquiry.

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[42] In an approach like that of Kayne (2002), the matrix subject and the anaphor would be merged as a constituent, [Jón, sig], *Jón* subsequently raising (stranding the anaphor) to match POW, then raising further into the matrix clause to match the matrix 'subject features'.

[43] The logophoricity that results from this point of view split is also available in languages like English (cf. e.g. Banfield 1982), the only difference being that Icelandic has 'grammaticalized' it by long distance reflexivization. Thus, binding the point of view feature across an intervening argument is a generally available option in language, in apparent violation of minimality. This would seem to suggest that the MLC is at least partly a PF condition, applying more strictly (perhaps only) to lexicalized features – a important and a difficult issue that I cannot go into here.

6. Conclusion

The standard generative theory of abstract Case, clause structure and the computation has offered many extremely fruitful research tools for decades. Minimalist inquiries, as pursued here, demonstrate however, that the notion of 'Case' was basically a convenient abstraction over 'the relevant argument features', much as T and C were "cover terms for a richer array of functional categories" (Chomsky 2001, fn. 8). The central claims of both Case theory and 'clausal theory' were insightful, but the analysis of the features involved was preliminary.

As it turns out, Case is of a limited syntactic importance, "demoted in significance" as Chomsky puts is (2000: 127), whereas Person is a central computational category, mediating between event participants and speech participants, much as Tense links event time to speech time. More generally, the clause can be analyzed as containing three major 'domains': the 'event domain', the 'speech domain', and the 'grammatical domain', linking the other two. Using a more familiar kind of syntactic notation, we can refer to these 'domains' as the Speech Phrase, the Event Phrase and the Inflectional Phrase, as sketched below:

(67) $[_{SP}$ … Speech features … $[_{IP}$ …Grammatical features … $[_{EP}$ ….Event features …

It is one of the major goals of linguistic research to discover what the universal features of each of the three clausal domains are. As a first tentative approximation, I assume that Universal Grammar minimally has the following types of features:

(68) $[_{SP} \lambda_A$ … Force … Top … S_T … S_L $[_{IP}$ … Person … Tense … $[_{EP}$ … θ … E_T …

Grammar, thus, is a device containing grammatical features that compute or interpret event features in relation to speech features.

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