On EPP effects

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In this paper I argue that EPP effects are of two different types, NP-movement vs. the Filled Left Edge Effect. While NP-movement is driven in Narrow Syntax by the computation of Person, some Filled Left Edge phenomena, including Icelandic Stylistic Fronting, seem to take place in PF. Even so, these phenomena also reflect the clausal computation, that is, the matching processes that value clause internal elements in relation to the linguistic context, above all features of the *Speech Event*.

1. Introduction*

EPP (Extended Projection Principle) effects are of two different types:

(1) EPP effects:
  a. NP-MOVEMENT
  b. The FILLED LEFT EDGE EFFECT, FLEE for short (leading to the finite declarative clause having a spelled-out left edge)[1]

These two types of effects often overlap and they are also commonly conflated in the literature.[2] In the approach of Chomsky (2006), FLEE should follow from the Edge Feature. Much like EPP itself however, the notion 'Edge Feature' is unclear and poorly understood. According to Lasnik (2003:1) the "EPP has been … a pervasive mystery since it was first formulated by Chomsky (1981)". Introducing the 'Edge Feature' does not clarify or remove the mystery.

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[1] The informal notion 'left edge' refers to both the CP domain in 'full' finite clauses and the IP domain in clausal structures that lack an active CP layer, such as ECM infinitives. See further below.

[2] For recent overviews of the EPP and its history in generative research, see Lasnik 2003, Epstein & Seely 2006, Boeckx 2007.

While languages evidently display *effects* that have commonly been attributed to EPP, Universal Grammar contains no Extended Projection *Principle*.[3] The terms 'NP-movement' and 'FLEE' are thus just convenient descriptive lables. On the basis of evidence from mainly Icelandic and English, I argue that these two types of EPP effects have common as well as different properties. Common to both types is that they are reflections of the clausal computation, that is, the grammatical machinery that values clause internal elements in relation to the linguistic context, above all the features of the *Speech Event*. They also differ, however, in that NP-movement crucially involves Person matching, whereas FLEE may be substantiated by elements that do not match Person, including the Icelandic expletive *það* 'there, it' and stylistically fronted non-arguments (Holmberg 2000). An additional difference is that FLEE reflects computational relations only indirectly, in PF, while NP-movement is directly driven in syntax, by the computation of Person.

Before I can discuss EPP effects, general background assumptions about clausal structure and the computation must be introduced. Extending the cartographic approach of Rizzi (1997) and ideas I have developed in earlier work,[4] I assume a radically split Infl and a rich CP domain, with at least the following elements (abstracting away from Foc(us) and more fine grained splitting of the modal and aspectual domains):[5]

(2) $[_{CP}$ .. Force .. CLn .. Λ_A .. Λ_P .. Fin .. $[_{IP}$ Pn .. Nr .. T .. $[_{vP}$ v .. (NP) ..]]

(3) a. CLn, Λ_A, Λ_P, Fin = features of the minimal *Speech Event*.[6]
b. CLn = a *Context-Linker*.

[3] My arguments to this effect are different from the arguments developed by others (e.g., Epstein & Seely 2006), but I will not compare my approach with alternative accounts of EPP effects; it would take us much too far afield.

[4] Including Sigurðsson 2000, 2003, 2007a (written 2003), 2004a, 2004b, 2004c, 2006a, 2006b, 2006c, 2006d, 2007b, 2007c, and Sigurðsson & Holmberg 2007. Like I do in many of these works, and will do here, Boeckx 2007 argues in favor of Person being crucially important with respect to (certain) EPP effects. Others, including Miyagawa 2005, have also pursued (different implementations of) the idea that EPP effects result from more than one matching correlation.

[5] CP, IP and vP are here used as labels for domains, and not as X'-theoretic labels of projections (there are no simple or unique C, I and v heads, cf. Sigurðsson 2006b). For an early, conceptually related split CP domain approach to some of the issues discussed here, see Branigan (1996).

[6] My *syntactic* notion of the speech event is much more limited in scope or minimalistic than the speech event notion of Jakobson (1959/1990). It is also more constrained than Ross' performative hypothesis (1970) and free of the recursion problem of his approach. However, I owe much to the sharp insights of these researchers and also to Bianchi (2003, 2006) and Schlenker (2003) (see furthermore Sigurðsson 1990, Di Domenico 2004, Speas 2004, Tenny 2006, Poletto & Zanuttini 2007, to mention only a few works that pursue similar ideas). For speculations that silent speech event features might be needed to 'round off' the CP phase, see Chomsky (2004:108 and 125, fn. 17).

CLn corresponds roughly to the Top(ic) head or feature in the sense of Rizzi 1997. However, not only true argumental topics but also many adverbials are semantic variables, getting their values set by elements in the linguistic (or speech event) context, thereby serving as Context-Linkers.[7]

c. Λ_A = the logophoric agent ('the speaker').[8]

d. Λ_P = the logophoric patient ('the hearer').

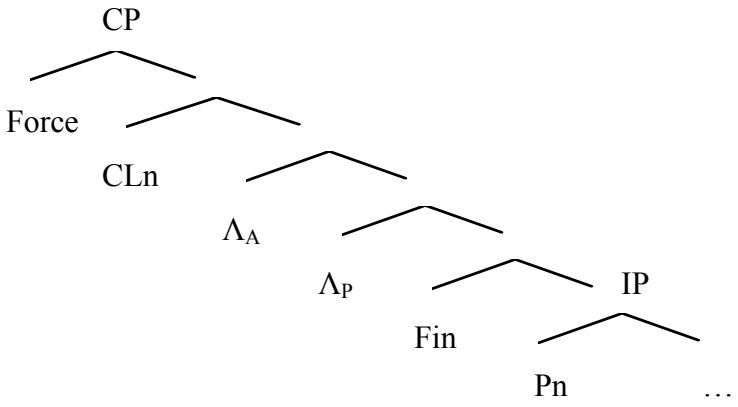
e. Fin = the Fin(iteness) head or feature in the sense of Rizzi (1997).
This is sufficiently accurate for most of our purposes, but, as discussed in Sigurðsson 2004b, Fin splits into Speech Location and Speech Time, S_L and S_T (or T_S, if one likes). I will return to this.

f. Pn = the Person head of the clause (one of the features of the classical Infl), valued in relation to Λ_A, Λ_P, and usually also valued in relation to an NP.

g. Nr = the Number head of the clause.

It is not self-evident what order to assign to silent CP domain features, but for concreteness I assume the following structure, where I abstract away from Foc(us) (we will in fact encounter some evidence in favor of the order of elements assumed here):

(4)



A single item may match (represent) more than one feature. It is in fact evident (as we will see) that grammar obeys *optimal matching*, such that all the features in the set F = {f1, …, fn} are matched by a single item, if the numeration contains a 'rich' enough item for that. That is, merging another item that matches *only* a subset of F leads to a crash (in a sense, this would be an Inclusiveness Condition violation, cf. Chomsky 1995 *et seq*.).[9]

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[7] Thus, an adverb like *then* in *Then I saw Peter* is a temporal variable with roughly the meaning "time *y* simultaneous to or later than time *x*", where time *x* is a contextually decided temporal referent. Context-linking is referred to as D(iscourse)-linking by Pesetsky (1987) and much subsequent work. Context-linking is the preferable notion, as it includes not only discourse-linking but also inherent speech event linking.

[8] I use lambda in line with θ and φ, but I opt for a capital *Λ* to avoid confusion with lambda calculus. As illustrated in Sigurðsson 2004b and 1990, the more common notions 'speaker' and 'hearer' are too simple and partly misleading, although I also use them, for ease.

[9] See also 'Maximize matching effects' in Chomsky (2001:15). My formulation of optimal matching is only informal, as I have not explored its scope and all its consequences. As a subcase of optimal matching, positive mathing takes precedence over negative matching, an issue I'll return to.

By optimal matching a third person subject pronoun like *she*, for instance, matches or represents +Pn, + Fin (i.e., its Speech Local factor), $-\Lambda_P$, $-\Lambda_A$ and +CLn. By actively matching CP speech event features the subject gets speech event anchored or GROUNDED. In order for successful grounding to take place the (finite clause) subject has to raise into the immediately subjacent vicinity of Pn, but no higher, that is, it matches the features of the CP domain under distant Agree (see further below). Objects are indirectly or 'transitively' licensed by being in the scope of their gounded subject.[10]

Arguments, in turn, are complex syntactic structures with phi-feature variables, Pn_α, Nr_β, etc. (cf. Déchaine & Wiltschko 2002, Platzack 2004 and others). As pointed out by Sigurðsson and Holmberg (2007), a predication like *write (x, y)* or *write (θ_1, θ_2),* can of course be expressed as in (5):

(5) writer write (to) writee

However, this is not how language typically works. Rather, any argument must match the clausal Pn head as being either +Pn or –Pn, +Pn arguments in turn entering into a further matching relation with the logophoric features of the CP domain, this second (and higher) matching yielding the actual person values of a pronoun. This is sketched below, where the arrow reads 'gets valued as':

(6) $NP_{\alpha Pn} \rightarrow NP_{+Pn}$ or NP_{-Pn}

(7) a. +Pn → $+\Lambda_A, -\Lambda_P$ = 1P by computation
b. +Pn → $-\Lambda_A, +\Lambda_P$ = 2P by computation
c. +Pn → $-\Lambda_A, -\Lambda_P$ = 3P by computation
d. –Pn: = 3P by default[11]

Similarly, a vP event is either valued as +T(ensed) or –T, +T in turn entering into a further matching relation with (the Speech Time feature of) Fin.[12] Thus, the IP domain of grammatical features mediates between the 'context domain' of the CP and the 'content domain' of the vP (Platzack 2001 pursues the same intuition, though approaching and formalizing it differently).[13]

[10] Where the subject is either locally grounded or anaphorically grounded, under control (as in control infinitives). Local grounding is misleadingly referred to as 'abstract Case' in much generative research. Like any other NPs, objects also enter into non-subject dependent matching relations, not discussed here.

[11] The 'no person' approach to the 3 person (of Benveniste 1966 and others) has long been tantalizingly 'correct and incorrect', as is well known. The dilemma disappears under the present approach.

[12] This is a simplification, but it is sufficiently accurate for my present purposes.

[13] More is required to account for Number computation and for in-/exclusiveness of plural arguments, but I will not go into further details here. This sketch is sufficiently detailed to demonstrate the general approach.

In this approach, all syntactic features are interpretable (i.e., uninterpretable agreement features belong exclusively to PF, as argued in, e.g., Sigurðsson 2004c, 2006b). However, they enter syntax unvalued, being valued in the course of the derivation, as just sketched for Person.

Case is not a syntactic feature or object on the present approach, but a morphological (PF) representation or 'translation' of complex relations between NPs and their syntactic environment. Thus, dative case is, for instance, used to mark the following kind of NP relations in Icelandic:

(8) a. Agentive NPs in *af-* 'by' phrases in the passive
b. Experiencer subjects of certain predicates
c. Theme subjects of certain predicates
d. Free benefactives
e. Most benefactive indirect objects
f. Numerous direct objects (with certain thematic and aspectual readings)
g. Complements of many prepositions
h. Complements of certain adjectives
i. Certain adverbial NPs (instrumental, possessive, comparative)

This is illustrated by English glosses in (9), where *mér* is the Icelandic dative form of the first person singular pronoun:

(9) a. 'he was supported by **mér**'
b. '**mér** feels good' = 'I feel good'
c. '**mér** went forth' = 'I made progress/recovered'
d. 'I made **mér** a cup of coffee'
e. 'she sent **mér** the letter'
f. 'she pushed **mér**'
g. 'she was with **mér**', 'she was ahead of **mér**'
h. 'she was **mér** nice' = 'she was nice/kind to me'
i. 'she was **mér** older' = 'she was older than me'

These are among the possibilities, but there are more, and all of these relations can also be differently marked (with different cases and/or prepositions, depending on predicates and various other factors). It is rather obvious that it does not make much sense to assume there to be a *syntactic* 'dative feature' that would be the common denominator for all these (and further)

relations.[14] Rather, dative case is a *morphological* 'translation' or representation of numerous different syntactic factors, A, B, C, etc.:

(10) Narrow Syntax —transfer→ Morphology (PF)

a. Syntactically computed {A, B, C} → dative
b. Syntactically computed {B, D} → dative
c. Syntactically computed {E, F, L} → dative
d. …

– and so on. In less schematic terms, the sets {A, B, C}, etc., of syntactically computed relations correspond to traditional descriptions like 'experiencer subjects of certain predicates', 'direct objects with certain thematic and aspectual properties', and so on. Parallel observations apply to the other cases. Thus, nominative is used to mark the following rather heterogeneous syntactic relations (in addition there are agreeing nominatives, including floating quantifiers and predicates, not taken into account here):

(11) a. Agentive subjects in finite clauses
b. Numerous non-agentive subjects (of various kinds of predicates)
c. Subjects of ECM-like infinitival and small clause complements of certain matrix verbs that take a dative subject
d. Objects of certain verbs that take a dative subject
e. Predicative NPs (in finite clauses and PRO infinitives)
f. Many left dislocated NPs
g. Many right dislocated NPs
h. Vocatives and other addressing expressions
i. Certain exclamative NPs
j. Certain adverbial NPs
k. Most listed NPs (in dictionaries, etc.)

Again, it does not seem to make much sense to assume that all these relations are 'one and the same' in syntax. This becomes even more obvious when one also considers the fact that closely related languages like Icelandic and German, with fundamentally the same kind of case systems, do not only have many amusing similarities in their case systems but also numerous striking differences (see Maling 2001, 2002) – such differences would be unexpected, in fact *very*

[14] For instance, prepositions with heterogeneous semantics obligatorily assign or require dative case, including *frá* 'from', *að* 'towards', *hjá* 'at, with' and *gegn*/*gengt* 'against/opposite to'. Other prepositions arbitrarily require the genitive, e.g., *til* 'to(wards)', *án* 'without', *innan* 'within', and so on.

surprising, if the cases belonged to Narrow Syntax. In short, the derivation is plausibly not as in (12), but, rather, like the more economical one in (13):

	Narrow Syntax	transfer	Morphology (PF)
*(12) a.	{M, N, L} > +NOM	→	nominative
b.	{H, J, M} > +NOM	→	nominative
c.	{K, N, R} > +NOM	→	nominative
d.	…		

	Narrow Syntax	transfer	Morphology (PF)
(13) a.	{M, N, L}	→	nominative
b.	{H, J, M}	→	nominative
c.	{K, N, R}	→	nominative
d.	…		

That is, the NO CASE GENERALIZATION holds:

(14) Syntax has no case features

If one wishes, one can assign the notion 'syntactic cases' to sets or combinations of syntactically computed relations like {M, N, L} or 'agentive subjects in finite clauses', etc. Crucially, however, such complexes are *not input* to the computation but its *outcome* (much like, e.g., 'subjects' and 'objects'). In other words, case is not – could not be – a feature or an object operated with in syntax.[15] It is an 'interpretative' feature (or features) operated with in PF morphology, where it overtly distinguishes between arguments (or NPs) and enters into disambiguating agreement processes.[16] Not being part of Narrow Syntax, it is no wonder that case is uninterpretable to the semantic interface.

[15] Assuming that an NP has to have an 'unsatisfied' or an active case feature in order to be syntactically active is vacuous, as it merely amounts to saying that NPs enter into syntactic relations. That is, this is tantamount to the No Case Generalization.

[16] Syntactic Agree must be sharply distinguished from morphological agreeement (Sigurðsson 2004c, 2006b).

2. Person and NP-movement

If syntax has no case features, NP-movement cannot be driven by case, at least not if it is a Narrow Syntax operation. A wide array of facts considered in Zaenen et al. (1985) and in Sigurðsson (1989) and subsequent work indicates that this is correct, raising the question of what other factors might drive NP-movement. In Sigurðsson (2003), I proposed that Person matching is the crucial factor behind it, at least in nominative-accusative systems, stating the following generalization, call it the PERSON PROMINENCE GENERALIZATION, PPG:[17]

(15) Visualize Person at the left edge of IP

At the time, PPG was basically only an observation, but given the Speech Event Theory sketched in (2) = (16), it now falls into place:

(16) $[_{CP}$ .. Force .. CLn .. Λ_A .. Λ_P .. Fin .. $[_{IP}$ .. Pn .. Nr .. T .. $[_{vP}$ v .. (NP) ..]]

In order to get valued as +Pn and subsequently to match the logophoric 'speaker' and 'hearer' features (Λ_A-Λ_P), an argument has to move into the immediately subjacent vicinity of the Pn head of the IP clause (where it tucks in, cf. Sigurðsson 2006b, 2006c, see also below). Notice that if the argument would only need to match Pn, it would presumably be able to do so under distant Agree. That is, the reason why it has to raise is plausibly that it also has to match the logophoric features of the CP domain, i.e., it cannot match both Pn and Λ_A/Λ_P *across Pn* by distant Agree. In other words, (17a) below is well formed, whereas (17b) is not; the notation Pn/NP indicates that the moved NP tucks in under Pn, thereby matching Pn, in turn enabling Pn to match Λ_A-Λ_P (henceforth Λ for short):[18]

(17) a. $[_{CP}$ .. Λ .. Fin .. $[_{IP}$ .. Pn/**NP** ..$[_{vP}$ v .. ~~*NP*~~ ..]]
↑____ Agree ____↑ ↑___ Move __↑

[17] Mistakenly understood to be a principle in Sigurðsson (2003). Curiously, personal pronoun subjects in Swedish and Norwegian (as opposed to Icelandic, Danish, English, German, etc.) are exempted from this left edge visualization requirement, i.e., these languages have grammatical examples of the sort "… that not I knew it" (meaning 'that I didn't know it', see Holmberg 1993, Haeberli 2002:235ff). It thus seems that Pn and Fin can be separated by certain adverbials in these languages. This might relate to the fact that Norwegian and Swedish have no person agreement, but that could not be the only factor, as that also applies to Danish. I leave the issue aside here.

[18] I assume that adjacent silent features like Λ_A and Λ_P bundle up (Λ_A-Λ_P = Λ) unless they are separately treated by some process in syntax or morphology. – Notice that my 'single chain' approach to Move + Agree is incompatible with Chomsky's (2005) attempt to split such complex chains into two disjoint chains (formed by parallel movement). For evidence suggesting that Chomsky's approach cannot be easily maintained, see Sigurðsson & Holmberg (2007).

b. * [$_{CP}$ .. Λ .. Fin .. [$_{IP}$ .. Pn .. [$_{vP}$ v .. NP ..]]

↑__ Agree __↑

↑_____ *Agree_____↑

The argument NP in (17a) also matches Fin (suggesting that Λ and Fin may bundle up and act as a single head, an issue I will return to).

In passing, notice that I will not be concerned with the fact that the finite verb matches the Speech Time factor (S_T, or, if one likes, T_S) of the Fin complex. The fact that it does so across categories that overtly match the +/–Speech Local factor of Fin, without this leading to minimality violations, is poorly understood and I will have nothing to say about I here. Other aspects of the anslysis in (17) will be discussed in more detail in sections 4 and 5.

By (7c,d), 3p is either a true, computed person or 'no person', triggering 3p morphology as a last resort, by default. Given that indefinite NPs are or may be 3p by default ('no person'), the present approach accounts directly for the core facts of the Definiteness Effect:

(18) a. There have probably been **some strangers** in the garden.
b. * There have probably been **I/you/they** in the garden.
c. * There has probably been **she/he/it** in the garden.
d. * There am probably **I** in the garden.

Chomsky (2001:7) argues that "expletives must have the feature [person]". That seems to be true of English *there*, as suggested by the fact that its associate triggers number agreement (plural *have* in (18a)), but cannot trigger true person agreement. That follows if *there* enters into a matching relation with Pn, which is thus 'taken'. It also follows that the expletive is incompatible with the true person matching pronouns in (18b,c,d). See further section 4.

That true person (1, 2 and computed 3 person), as opposed to case, is relevant with respect to NP-movement is abundantly evident in case languages like Icelandic. This is partly illustrated by patterns like the one in (19):

(19) a. … að þá mundu sennilega hafa verið kosnir
… that then would probably have been elected
kommúnistar í stjórnina.
communists.NOM to board.the
'… that there would then probably have been (some) communists elected …'
b. * … að þá mundu sennilega hafa verið kosnir
… that then would probably have been elected
kommúnistar<u>nir</u> í stjórnina.
communists.<u>the</u>.NOM to board.the

c. * … að þá mundu sennilega hafa verið kosnir **þeir** í stjórnina.
… that then would probably have been elected they.NOM to board.the
d. * … að þá mundum sennilega hafa verið kosnir **við** í stjórnina.
… that then would probably have been elected we.NOM to board.the

If we assume that definite NPs have to be valued +Pn by computation, we have an account of the ungrammaticality of (19b-d):[19] The +Pn arguments are not raised into the vicinity of Pn, hence cannot enter into the necessary matching correlations with the speech event features of the CP domain, cf. (17). In contrast, indefinite NPs may either be 3p by default, staying low, as in (19a), or 3p ($-\Lambda_A, -\Lambda_P$) by computation, in which case they raise, as in (20):

(20) … that **(some) communists** would then probably have been elected to the board.

As seen in (19a), getting the structural cases deep down into the vP is not a problem. This is further illustrated in (21) and (22) (see also Sigurðsson 1992:22, 2003:253ff); the brackets indicate an ECM clausal boundary:

(21) a. Þess vegna höfðu verið seldir **bátar** á uppboðinu.
there for had been sold boats.NOM at auction.the
'Therefore, (some) boats had been sold at the auction.'
b. Mér virtust [$_{\text{ECM/NOM}}$ hafa verið seldir **bátar** á uppboðinu].
me.DAT seemed have been sold boats.NOM at auction.the
'It seemed to me that (some) boats had been sold at the auction.'

(22) Ég taldi [[$_{\text{ECM/ACC}}$ hafa verið selda **báta** á uppboðinu].
I believed have been sold boats.ACC at auction.the
'I believed there to have been (some) boats sold at the auction.'

Non-structurally case-marked NPs are subject to the same positional conditions and restrictions as structurally case-marked ones (Sigurðsson 1989 *et seq*.). That is, subject NPs have to raise when they carry true person and need not (even may not) raise otherwise, *regardless* of their case-marking (parallel facts apply in ECM constructions):

(23) a. … að það hafði verið bjargað **fjórum sjómönnum** / *okkur
… that there had been rescued four fishermen.DAT / *us.DAT

[19] Alternatively, Def(initeness) or Specificity is an independent computational feature, preconditioning +Pn. This is a complex issue, and I will not try to sort it out here.

b. … að **okkur** hafði verið bjargað.
… that us.DAT had been rescued
'… that we had been rescued.'

I take it that the importance of Person and the irrelevance of case with respect to NP-movement is firmly established by now (see previous work, e.g., Sigurðsson 1989, 2000, 2003, 2006b).[20] However, I will return to the issue in section 4, presenting facts that lend even further credibility to the present approach. First, though, I need to discuss the Icelandic expletive *það* 'there, it', as well as the Filled Left Edge Effect, FLEE.

3. FLEE, *það* and CLIC

As mentioned above, English expletive *there* can be successfully analyzed as a [person] element, matching the clausal Pn feature:

(24) $[_{CP}$ .. Force .. CLn .. Λ .. Fin .. $[_{IP}$ Pn/*there* …

I assume that *there* enters into a long distance Agree with the CP speech event features, thus (negatively) matching Fin and the logophoric 'speaker' and 'hearer' features, Λ.[21] Recall from (3e) that Fin actually splits into Speech Location and Speech Time, and assuming that *there* is marked as –Speech Local (or –Proximate) in addition to –Λ seems to be essentially correct. A regular, definite subject also matches a number of features, the major difference being that it matches at least one CP speech event feature positively ($+\Lambda_A$ and $+S_L$ in the case of the first person pronoun, +CLn in the case of 3 person pronouns, and so on).

In short, English *there* shows much the same NP-movement type of EPP effects as regular definite arguments, plausibly because it is a [person] element. The Icelandic expletive *það* 'there, it' behaves very differently, not sharing any A-properties with regular subjects. Thus, it differs from English *there* and for instance Mainland Scandinavian *det* in never

[20] Quirky agreement also provides strong arguments in favor of NP-movement being triggered by Person matching. I cannot review the complex quirky agreement facts here, but I refer the reader to Sigurðsson & Holmberg 2007 and the references cited there.

[21] In view of the fact that English (and, e.g., Mainland Scandinavian) expletives are compatible with CLn matching adverbials (as in *Then, **there** was a strike in London*), I assume that expletives may or may not enter into a (negative) matching relation with CLn. In the precense of a 'stronger' CLn and Fin-matcher like *then*, English *there* only matches Person (which is enough to prevent it from being excluded as an Inclusiveness Condition violation). Icelandic *það*, on the other hand, does not match Person and is thus ruled out in the presence of a 'stronger' CLn and Fin-matcher. In fact, there are reasons to believe that expletive *það* cannot match CLn at all, not even only negatively, but I will not pursue the question here.

interfering with any kind of agreement. Compare the Swedish clause in (25a) with the Icelandic one in (25b) (from Sigurðsson 2004b):

(25) a. **Det** blev skjut<u>et</u> älgar.
it.NT.SG was shot.NT.SG moose
'There were some moose shot.'

b. Það voru skotnir **hvalir**.
it was.3PL shot.NOM.M.PL whales.NOM.M.PL
'There where some whales shot.'

The Swedish expletive *det* triggers (underlined) agreement of the participle *skjutet*, whereas both verbal and participial agreement in Icelandic is controlled by the post-verbal nominative associate of *það*, *það* itself never having any agreement effects whatsoever. Rather, it merely satisfies the FLEE in (1b), repeated here:

(1) EPP effects:
a. NP-MOVEMENT
b. FILLED LEFT EDGE EFFECT, FLEE for short (leading to the finite declarative clause having a spelled-out left edge)

Thus, *það* is subject to a remarkable restriction, the CLAUSE INITIAL CONSTRAINT, CLIC.[22] That is, it is confined to the first position in finite clauses, both main and subordinate clauses, thereby differing from referential subjects, in fact from all other lexical items in the language. This is illustrated with English glosses in (26):

(26) a. **Það** had been sold some boats at the auction.
b. Had (***það**) been sold some boats at the auction?
c. Then had (***það**) been sold some boats at the auction.
d. … whether [**það** had been sold some boats at the auction].
e. … whether [then had (***það)** been sold some boats at the auction].
f. I believed [(??**það)** have been sold some boats at the auction].[23]

[22] The term Clause Initial Constraint was coined in Sigurðsson 2004b, but the properties of the Icelandic expletive have been widely discussed. See, for instance, Thráinsson 1979, 2005, 2007, Rögnvaldsson 1984, Zaenen 1985, Platzack 1987, Ottósson 1989, Sigurðsson 1989, Magnússon 1990, Rögnvaldsson & Thráinsson 1990, Jónsson 1991, 1996, Holmberg & Platzack 1995, Holmberg 2000, Vangsnes 2002.

[23] Some speakers accept the expletive in ECM infinitives (see Thráinsson 1979:357, 446, 481f), but authentic examples are hard to find, it seems (on Google, for instance). I restrict my account to my own (and, I believe, the central) variety, where the expletive is unacceptable in ECM albeit not as sharply ungrammatical as in post-verbal position in finite clauses.

In the influential analysis of Platzack (1987) and Holmberg & Platzack (1995), it was assumed that *það* was strictly confined to (an unsplit) Spec,CP and hence that subordinate clauses with *það* had to be analyzed as involving a recursive CP layer:

(27) … [$_{CP}$[1] whether [$_{CP}$[2] **það** had [$_{IP}$ …

However, a recursive CP structure should plausibly be exceptional, even highly exceptional. Expletive *það* in embedded clauses is not exceptional. It is common and neutral, as extensively demonstrated by Magnússon (1990). Consider:

(28) a. … að **það** væri draugur í eldhúsinu.
… that there was ghost in kitchen.the
'… that there was a ghost in the kitchen.'

b. … hvort (að) **það** væri draugur í eldhúsinu.
… whether (that) there was ghost in kitchen.the

c. … hvenær (að) **það** væri draugur í eldhúsinu.
… when (that) there was ghost in kitchen.the

d. … eins og (að) **það** væri draugur í eldhúsinu.
… as if (that) there was ghost in kitchen.the

e. … þegar (að) **það** væri draugur í eldhúsinu.
… when (that) there was ghost in kitchen.the

And so on. As very clearly demonstrated by Magnússon (1990), *það* is neutral in almost any kind of subordinate clauses, with basically only one type of exceptions, namely:

(29) *Það* may act as an intervener between an operator and a variable

That is, *það* is excluded from many relatives, comparatives, interrogatives and clauses extracted from. This holds in particular if the variable is the subject of the 'gapped' clause, as in (30):

(30) a. Þetta er maður sem (***það**) elskar allar bækur.
this is man who (*there) loves all books
'This is a man who loves all books.'

b. Hún spyr hver (***það**) elski allar bækur.
she asks who (*there) loves all books

c. Þessi maður veit ég að (***það**) elskar allar bækur.
this man know I that (*there) loves all books

This is much as in English and many other related languages (apart from the fact that Icelandic does not show any *that*-trace effects). I will return to this is section 5, where I argue that it is directly accounted for if *það* has a matching function that is already served by the empty subject variable.[24]

The most central and general fact about *það* is CLIC, namely that *það* must not be spelled out *when some other element takes the first position of the clause*. We saw this in (26) and it is further illustrated in (31) (for the transitive expletive, but the same holds for other expletive constructions, such as intransitive existential predicates and weather predicates):

(31) a. **Það** höfðu margir stúdentar lesið auglýsinguna í gærdag.
there had many students read announcement.the in yesterday
'Many students had read the announcement yesterday.'
b. Margir stúdentar höfðu (***það**) lesið auglýsinguna í gærdag.
c. Auglýsinguna höfðu (***það**) margir stúdentar lesið í gærdag.
d. Í gærdag höfðu (***það**) margir stúdentar lesið auglýsinguna.

This even holds in yes/no-questions, where Spec,CP is not lexicalized:

(32) Höfðu (***það**) margir stúdentar lesið auglýsinguna í gærdag?
had (*there) many students read announcement.the in yesterday

In Sigurðsson (2004b), I proposed an analysis where *það* (negatively) matches Fin (its S_L factor) and other speech event features under distant Agree, *það* thereby representing the values –Fin, –Λ.[25] As illustrated in (33), where '[Ø]' denotes phonetic emptiness, this gives us a uniform account of the CLIC in both main and subordinate clauses:[26]

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[24] Notice that the distribution of Icelandic *það* is markedly different from the distribution of German (existential) *es* 'there', the latter being strictly confined to main clause initial position (cf. Mohr 2005):

(i) a. **Það** er draugur í eldhúsinu.
there is ghost in kitchen.the
'There is a ghost in the kistchen.'
b. … hvers vegna **það** er draugur í eldhúsinu.
… what for there was ghost in kitchen.the
'… why there is a ghost in the kitchen'.

(ii) a. **Es** ist ein Gespenst in der Küche.
there is a ghost in the kitchen
b. * … warum **es** ein Gespenst in der Küche ist.
… why there a ghost in the kitchen is

[25] As I also argued, a distinction has to be made between negative matching (yielding negative valuing) and no matching (yielding no valuing). See further below.

[26] The analysis in (33) is slightly different from my 2004b approach (also in 2007a, written 2003), where I assumed that *það* is in Spec,IP (as in, e.g., Ottosson 1989, Rögnvaldsson & Thráinsson 1990, Magnússon 1990).

(33) a.	*Main clauses*:	[$_{CP}$	[Ø]	Fin/*það* [$_{IP}$ Pn …	‘there’
	Subordinate clauses:				
b.	Declarative:	[$_{CP}$	*að*	Fin/*það* [$_{IP}$ Pn …	‘that there’
c.	Interrogative:	[$_{CP}$ *hvort*	(*að*)	Fin/*það* [$_{IP}$ Pn …	‘whether (that) there’
d.	Conditional:	[$_{CP}$ *ef*	(*að*)	Fin/*það* [$_{IP}$ Pn …	‘if (that) there’
e.	Temporal:	[$_{CP}$ *þegar*	(*að*)	Fin/*það* [$_{IP}$ Pn …	‘when (that) there’
f.	...				

In all instances, then, *það* tucks in immediately to the right of Fin.

Expletive *það* is excluded in the presence of a regular definite subject, as positive matching takes precedence over negative matching (a subcase of optimal matching). A first person subject pronoun, for instance, matches both Λ_A and the S_L (or the proximate) factor of Fin positively (as being +Speech Local), thereby excluding the expletive (from simultaneously matching Λ_A and S_L negatively).[27]

If the finite verb in verb-second languages moves into the vicinity of Fin (and sometimes also to Force), as commonly assumed, we have a simple account of CLIC:

(34) *Það* is only licensed in the immediately subjacent vicinity of Fin, hence it a) blocks the finite verb from moving to Fin, and b) cannot occur any lower in the structure (which would allow the finite verb to move to Fin).

Thus, (35a) and (35d) are well-formed, whereas both (35b) and (35c) crash:

(35) a.	[$_{CP}$ … Fin/*það*	[$_{IP}$ Pn V_{fin} …	***það*** *var kalt*	=	‘þ. was cold’
b.	* [$_{CP}$ … Fin/V_{fin}/*það*	[$_{IP}$ Pn ~~V_{fin}~~ …	* *var* ***það*** *kalt?*	=	’was þ. cold?’
c.	* [$_{CP}$ … Fin/V_{fin}	[$_{IP}$ Pn/*það* ~~V_{fin}~~ …	* *var* ***það*** *kalt?*	=	’was þ. cold?’
d.	[$_{CP}$ … Fin/V_{fin}	[$_{IP}$ Pn ~~V_{fin}~~ …	*var kalt?*	=	’was cold?’

This follows as *það*, in contrast to English *there*, Swedish *det*, etc, does not match Pn, thus having no ‘business’ other than negatively matching Fin and the logophoric speech participant features (Λ). In contrast, Mainland Scandinavian *det* and English *there* attach to (tuck in under) Pn, hence not competing for Fin with the finite verb:

On the present approach, the complementizer *að* is *not* a lexicalized Fin (as I assumed in 2004b) but a ‘lexicalizer’ of Λ, higher in the CP domain. *Hvort*, *ef*, *þegar* in (33c-d) are plausibly Force elements, still higher than Λ, cf. the structure in (4).

[27] In English, *there* is already thrown out of the competition by *Pn* matching of personal pronouns (as *there*, in contrast to *það*, also has to match Pn). See further section 4.

(36) a. [$_{CP}$ … Fin/*was* [$_{IP}$ Pn/*there* …
b. [$_{CP}$ … Fin/*var* [$_{IP}$ Pn/*det* …

4. A note on the Definiteness Effect and matching of Pn and Λ_A/Λ_P

Reconsider the Definiteness Effect:

(37) a. There have probably been **some democrats** elected to the board.
b. * There have probably been **we** elected to the board.

On the assumption that *there* matches Pn, these facts are unproblematic (Richards 2004). The indefinite associate in (37a) has no true (computed) person, hence it matches only Nr, leaving room for *there* to match Pn. In (37b), on the other hand, the nominative *we* needs to match it's true person, making the expletive superfluous (merging an expletive would thus lead to a violation of the Inclusiveness Condition).

This is simple and elegant. Icelandic, however, illustrates that the issues at stake are more complex. Consider the facts in (38), where the clause-initial element is the context-linking adverbial *þá* 'then', there thus not being any expletive in the clause:

(38) a. Þá hafa sennilega verið kosnir **einhverjir demókratar** í stjórnina.
then have.3PL probably been elected some democrats.NOM to board.the
'Then there have probably been some democrats elected to the board.'
b. * Þá höfum sennilega verið kosnir **við** í stjórnina.
then have.1PL probably been elected we.NOM to board.the
c. Þá höfum **við** sennilega verið kosnir í stjórnina.
then have.1PL we.NOM probably been elected to board.the

As mentioned earlier, and as seen in (38a), nominative case is fully grammatical vP-internally, raising the question of why the pronoun in (38b) has to raise, as in (38c).

Simple as it is, this is a big problem for the approach to Agree developed in Chomsky (2000, 2001): Since the clause in (38b) does not contain any NP other than precisely the nominative *við*, the Inclusiveness Condition is not violated (in contrast to the English (37b)) and intervention does not arise either, meaning that the finite verb should be free to probe for the person of the nominative. As seen in (38a), it does probe the nominative for number, so why can it not also probe it for person?

As already suggested in section 2, the reason does not seem to have to do with Pn matching as such (yielding +Pn); if only that was at stake, plain Agree should do:

(39) $[_{CP} .. [_{IP}$ Pn .. $[_{vP}$ NP ..]]
↑__ Agree__↑

Plausibly, therefore, the reason why the pronoun has to raise into the vicinity of Pn is that it does not only have to match Pn but also the logophoric speech event features, Λ_A/Λ_P, in order to yield the exact value of +Pn, as 1, 2, or 3 (by computation). This was sketched in (17), repeated here as (40), in a slightly revised form, where I assume that Λ and Fin have bundled up, thereby acting as a single head, Λ-Fin:

(40) a. $[_{CP} .. \Lambda\text{-Fin} .. [_{IP} .. Pn/\mathbf{NP} .. [_{vP} v .. \sout{NP} ..]]$
↑___ Agree_____↑ ↑___ Move __↑

b. * $[_{CP} .. \Lambda\text{-Fin} .. [_{IP} .. Pn .. [_{vP} v .. NP ..]]$
↑__ Agree __↑
↑_____ *Agree_____↑

On this account, Λ-Fin may probe Pn/NP under distant Agree, (40a), whereas it cannot probe NP across Pn, as in (40b), Pn in that case acting as an intervener.

This approach gains further support from Icelandic *Reverse Predicate Agreement*, RPA (Sigurðsson 2004c, 2006b). Predicative NPs do not normally interfere with finite verb agreement, as illustrated in (41) (similar facts were discussed in Sigurðsson 1996):

(41) a. Við **verðum**/*verða þá kannski þeir í næsta lífi.
we.NOM will-be.1PL/*3PL then perhaps they.NOM in next life
'We will then perhaps be them in the next life.'

b. Þeir **verða**/*verðum þá kannski við í næsta lífi.
they.NOM will-be.3PL/*1PL then perhaps we.NOM in next life
'They will then perhaps be us in the next life.'

However, in the RPA construction, the predicates control even person agreement, as illustrated in (42), where the agreement controlling predicates are underlined:[28]

(42) a. Þetta **höfum** áreiðanlega bara verið við.
this.NOM have.1PL certainly only been we.NOM
'This has certainly only been us.'

[28] These judgements reflect my own intuitions. Some speakers accept default 3SG as well in clauses of this sort, but most informants I have checked this with usually prefer full agreement. Thus, in a small survey I have made, the 2SG form *ert* in (42c) was judged perfect by 13 but questionable by 1 of 14 informants. The default 3SG form *er* in this particular clause was judged perfect by 6, questionable by 5 and ungrammatical by 3.

b. **Voruð** þetta þá kannski þið?
were.2PL this.NOM then perhaps you.NOM.PL
'Was this then perhaps you yourselves?'

c. **Ert** það bara þú?
are.2SG it.NOM just you.NOM.SG
'Is it only you?'

RPA is compatible with only two lexical items as subjects, demonstrative *þetta* 'this' and *það* 'it'. These items are like expletive *það* in being computationally phi-empty (3SG by default), but they differ from it in being Context-Linkers (i.e., they positively match CLn, whereas the expletive does not match CLn).

As seen in (42b,c), domonstrative *þetta* and *það* both invert with the finite verb in V1/V2 contexts, thus behaving like regular subjects (and not like the expletive). That they are subjects in the RPA construction is further suggest by the fact that they raise (like neuter nominals in general, *það* and *þetta* show no NOM/ACC distinction):

(43) a. Ég taldi ÞAÐ bara hafa verið ykkur.
I believed it.ACC only have been you.ACC.PL

b. ÞETTA **virtumst** víst bara hafa verið við.
this.NOM seemed.1PL allegedly only have been we.NOM
'Allegedly, this seemed to have been only us.'

We have an account of RPA if demonstrative *það* and *þetta* do not only match CLn positively but are also matchers of Λ-Fin. If so, the predicative nominatives match only Pn (and Nr) but do not also have to match Λ-Fin, across Pn. This is illustrated in (44):

(44) $[_{CP}$ CLn … Λ-Fin/*þetta* .. $[_{IP}$ .. Pn ..$[_{vP}$ v .. $[_{VP}$ … NOM …
↑___ Agree___↑ ↑_____ Agree _____↑

RPA, then, yields support to the conclusion that it is not person-probing as such that leads to Definiteness Effect violations like (38b), but, rather, 'too distant' Λ-Fin probing of NOM, *across Pn*. Thereby, RPA also provides evidence in favor of syntactic Speech Event Theory as layed out in Sigurðsson 2004b and further developed here.

Consider the difference between predicative constructions with demonstrative *það*, (45), and clauses with the expletive, (46):

(45) a. ÞAÐ **höfðum** sennilega bara verið við.
it had.1PL probably only been we.NOM
'It had probably only been us.'

b. * Við **höfðum** sennilega bara verið ÞAÐ.[29]
we had.1PL probably only been it

(46) a. * ÞAÐ **vorum** sennilega kosnir við.
there were.1PL probably elected we.NOM
b. Við **vorum** sennilega kosnir.
we were.1PL probably elected

Crucially, demonstratives, like *það* in (45), are Context-Linkers. Expletive *það*, as in (46), on the other hand, has no other functions than to negatively match features (Λ and Fin) that are positively (hence 'more strongly') matched by the pronominal argument.

5. Teasing FLEE further apart: Stylistic Fronting

Mainland Scandinavian *det* as well as English *there* and *it* are largely obligatory in the absence of a 'stronger' (positive) Λ-Fin matcher; the examples in (48) are Swedish:

(47) a. Did *(**it**) rain much?
b. I believe *(**it**) is raining.
c. Does *(**there**) seem to be anyone in the house?

(48) a. Regnade *(**det**) mycket?
rained it much
b. Har *(**det**) blivit vald en ny president?
has there been elected a new president
c. Jag anser *(**det**) vara för kallt för att bada.
I consider it be too cold for (one) to swim
d. Verkar *(**det**) kanske ha varit någon i huset?
seems there maybe have been somebody in house.the

Due to the Clause Initial Constraint, CLIC, expletive *það* is excluded from comparable clauses in Icelandic:

[29] With different semantics this clause is somewhat less degraded (inasmuch as *það* can be construed as a personal pronoun, referring back to a discourse antecedent). Topicalizing the predicative NP also leads to marginality (?**VIÐ höfðum* ÞAÐ *sennilega bara verið*).

(49) a. Rigndi (*það) mikið?
rained it much
b. Hefur (*það) verið kosinn nýr forseti?
has there been elected new president
c. Ég tel (??það) vera of kalt til að synda.
I consider it be too cold for (one) to swim
d. Virðist (??það) kannski hafa verið einhver í húsinu?
seems there maybe have been somebody in house.the

As we have seen, we have an account of the Icelandic facts if *það* is only licensed in the immediately subjacent vicinity of Fin, thus neither being available in infinitives nor in finite clauses where the verb raises to Fin. English and Swedish, on the other hand, generally have to strictly adhere to the Person Prominence Generalization in (15) above:[30]

(15) Visualize Person at the left edge of IP

In English and Swedish a [person] element matches both Pn and Λ-Fin in finite clauses, only Pn in ECM infinitives, and neither in PRO infinitives:

(50) a. [$_{CP}$ … Λ-Fin ... [$_{IP}$ Pn/*there* — ^{ok}*there* in finite clauses
b. [$_{IP}$ Pn/*there* — ^{ok}*there* in ECM
c. * [$_{CP}$ ... [$_{IP}$ Pn/*there* — **there* in PRO infinitives

The unacceptability of *það* in ECM infinitives like (49c) is expected if ECM structures contain no Fin but do contain Pn (licensing English *there*). It is further supported by the fact that ECM infinitives are sensitive to the Definiteness Effect in much the same manner as finite clauses:

(51) a. Ég taldi hafa verið selda **of marga bíla**/*bílana.
I believed have been sold too many cars.ACC/*cars.the.ACC
'I believed there to have been too many boats sold.'
b. Ég taldi **bílana** hafa verið selda.
I believed cars.the.ACC have been sold

Recall, however, that matching Pn as such should be possible under mere Agree, that is, Move is triggered by a matching relation with a still higher head. In finite clauses the head in

[30] With the exception, mentioned in fn. 17 above that certain adverbials can separate Pn from Fin in Swedish (as also in Norwegian).

question, as we have seen, is Λ-Fin, but in ECM it is the matrix clause object Pn (cf. Sigurðsson 2006c). When an indefinite NP does not move, as in (51a), the clausal Pn features are left unmatched.[31]

EPP effects thus boil down to an interplay of Person matching and matching of CP speech event features, either involving both types of matching relations or only one of them. It follows that parameterization or other kinds of generalizations in terms of 'EPP' are unprincipled and theoretically underivable. Such generalizations can be catching descriptive approximations, but they tell us nothing about how grammar works.

Icelandic Stylistic Fronting, SF, offers additional evidence that we need to tease apart the mechanisms behind EPP effects, that is:

(52) a. Pn matching
b. Fin matching
c. Λ matching
d. CLn matching

SF has several rather special characteristics (Maling 1980, Rögnvaldsson & Thráinsson 1990, Jónsson 1991, Holmberg 2000, among others):

(53) a. SF fronts non-subjects, typically an adverb or a participle but sometimes a particle, a preposition, an infinitive, a PP or an N(P)
b. SF is preconditioned by a 'subject gap', that is, it only applies in case the canonical subject position is (phonologically) empty or vacated[32]
c. SF seemingly targets the canonical subject position (Spec,IP)
d. SF applies in finite clauses only, most commonly in subject gapped subordinate clauses (relative clauses, etc.) but also in main clauses that meet the subject gap condition.

A few examples:[33]

[31] Clausal head features remain unmatched (getting default values) in the absence of an active matcher. I refrain from illustrating this here, though.

[32] According to Hrafnbjargarson (2004), SF is only mildly degraded (one question mark) in the presence of a subject clitic, yielding the order Comp-Cl-SF (type: 'that'(h)e read had'). I do not share Hrafnbjargarson's intuition in this respect, that is, all such examples are clearly ungrammatical to me. In view of the fact that such examples can be found in Italian (Cardinaletti 2003), some Icelandic speaker variation in this respect is not unexpected. However, I have never come across an authentic Comp-Cl-SF example in any form of Icelandic, so I refrain from considering such examples here.

[33] As suggested by the examples in (54), SF typically fronts event-denoting categories, in the absence of any category that denotes a (speech local) participant.

(54) a. **Tekin** hefur verið __ sú ákvörðun að fresta kosningunum.
taken has.3SG been the decision to postpone election.the
'They have decided to postpone the election.'

b. **Sagt** er __ að **kosið** verði __ í júní.
said is.3SG that elected will-be.3SG in June
'It is said that there will be election in June.'

c. Þetta er vandamál sem **leysa** þyrfti __ strax.
this is problem that solve would-need.3SG at-once
'This is a problem one would need to solve at once.'

d. Við gerum þetta, eins og **um** var talað __.
we will-do this as about was.3SG spoken
'We will do this, as had been discussed.'

In most respects, SF has much the same distribution as expletive *það*, suggesting that SF elements are in some sense 'expletives' (Holmberg 2000):

(55) a. SF and *það* are both excluded in the presence of a definite (+Pn matching) subject
b. SF elements are always clause initial, like *það*, that is, both *það* and SF are ruled out when the finite verb moves to Fin
c. SF and *það* are both generally excluded in infinitives

These facts are illustrated for SF in (57)-(58), which should be compared to the grammatical examples in (56):

(56) a. **Skrifuð** hefur verið ný bók um þessar tilraunir.
written has.3SG been new book about these experiments
'There has been a new book written about these experiments.'

b. **Skrifað** hefur verið um þessar tilraunir.
written has.3SG been about these experiments
'Somebody has written about these experiments.'

Ungrammaticality in the presence of a definite subject or verb raising:

(57) a. * Skrifuð hefur **bókin** verið / verið **bókin** um þessar tilraunir.
written has.3SG book.the been / been book.the about these experiments

b. * Hefur **skrifað** verið um þessar tilraunir?
has.3SG written been about these experiments

Ungrammaticality in infinitives:

(58) a. * Hún vonast til að **skrifað** hafa __ um þessar tilraunir
she hopes for to written have about these experiments
fyrir jól.
before Christmas.

b. ?* Hún taldi **skrifað** hafa verið __ um þessar tilraunir í Science.
she believed written have been about these experiments in Science

c. * Hún virðist **skrifað** hafa __ um þessar tilraunir í Science.
she seems written have about these experiments in Science

Like SF, *það* is degraded in all these contexts. In one respect, however, the distribution of *það* and SF is radically different:

(59) *Það* may act as an intervener between an operator and a variable, whereas SF does not generally block operator-variable 'binding' (see (66) below)[34]

This is illustrated (in part only) in (60)-(62):[35]

(60) a. * Þetta er bók sem **það** hefur verið skrifuð um einmitt þetta.
this is book that there has been written about exactly this

b. Þetta er bók sem **skrifuð** hefur verið um einmitt þetta.
'This is a book that has been written about exactly this.'

c. Þetta er bók sem __ hefur verið **skrifuð** um einmitt þetta.
this is book that has been written about exactly this

(61) a. * Veit hún hver **það** hefur skrifað um þetta?
knows she who that has written about this

b. Veit hún hver **skrifað** hefur um þetta?
knows she who written has about this
'Does she know who has written about this?'

c. Veit hún hver __ hefur **skrifað** um þetta?
knows she who has written about this

[34] I only present the core facts, but, as has been discussed by, e.g., Rögnvaldsson (1984) and Magnússon (1990), some other factors may affect the well-formedness of expletive *það*. Thus, while it is impossible when the variable is a subject, it is commonly well-formed when it is a prepositional complement or an adverbial. This tallies with the analysis proposed here, but I refrain from going into further details.

[35] In fact there is another difference: *það* is more easily compatible with transitive verbs (the Transitive Expletive Construction) than is Stylistic Fronting, at least in my speech. However, the difference is not a sharp one and I will not try to develop any analysis of it here.

(62) a. * Hver heldur þú að **það** hafi skrifað um þetta?
who believe you that there has written about this

b. Hver heldur þú að **skrifað** hafi um þetta?
who think you that written has about this
'Who do you think has written about this.'

c. Hver heldur þú að __ hafi **skrifað** um þetta?
who think you that has written about this

SF does not have any clear semantic effects, a fact that led Holmberg (2000) to suggest that it is a syntactic movement that satisfies 'EPP' by moving only the phonological features of a word or a constituent, stranding its semantic and formal features. However, assuming that syntax can divorce meaningful units from their phonological representations calls for, 1) a general theory of such form-meaning splits (principles, conditions, etc.), and, 2) a theory of why and how form-meaning pairs should come into being in the first place (cf. Burton-Roberts & Poole 2006).[36]

I propose the following understanding: SF often has (formal) stylistic flavor to it, but it does not correlate with propositional semantics, so it is not surprising that it generally has vague or even nondectable semantic effects.[37] Like expletive *það*, however, it negatively matches Fin (its Speech Local component). There is one crucial difference, though, explaining why SF is possible in 'binding domains' in examples like the ones in (60)-(62) above, while *það* is impossible there:

(63) a. *Það* maches both (the Speech Local feature of) Fin *and* the speaker/hearer CP features (representing $-S_L$ as well as $-\Lambda_A/-\Lambda_P$)

b. A stylistically fronted element matches only (the Speech Local feature of) Fin (representing only $-S_L$)

Given that copies of A'-moved subjects are valued +Pn, they are like regular definite subjects in being positive matchers of the speaker/hearer CP features (Λ), thus rendering the expletive superfluous and ill-formed (as an Inclusiveness Condition violation).

That copies of A'-moved subjects have largely the same matching properties as regular overt subjects is evidenced by various factors, for instance verb agreement (the empty subject copy might be in Spec,vP rather than Spec,IP, but the difference is irrelevant here, as far as I can judge):

[36] There are strong reasons to believe that 'syntactic words' have no phonological material attached to them, but that assumption is not available under the general approach pursued by Holmberg (2000).

[37] Hrafnbjargarson (2004:93ff) claims that SF may have truth-conditional focus effects. I do not share that intuition. Hrafnbjargarson (2004:93) says that Sigurðsson (1997) suggested that "stylistic fronting is a way to focus a specific element in the clause", but I only pointed out that it was *compatible* with contrastive focus, given the right context.

(64) a. Hvaða málfræðingar heldur þú að __ hefð**u**/*hefði skrifað svona?
what linguists.PL think.2SG you that had.3PL/*3SG written such
'Which linguists do you believe would have written like this?'

b. Hvaða málfræðingar heldur þú að **skrifað** hefð**u**/*hefði svona?
what linguists.PL think.2SG you.SG that written had.3PL/*3SG such

On the present tucking-in approach to movement, the structure of the stylistically fronted version in (64b) is roughly as in (65) (where I make do distinction between Agree and Agree+Move):

(65) [$_{CP}$ wh … [$_{CP}$ … ~~*wh*~~ … Λ … Fin/*skrifað* [$_{IP}$ Pn/e$_{subj}$
↑_____↑↑___↑↑_____↑

The corresponding ungrammatical structure containing *það* is sketched in (66):

(66) *[$_{CP}$ wh … [$_{CP}$ … ~~*wh*~~ … Λ-Fin/*það* [$_{IP}$ Pn/e$_{subj}$
↑_____↑↑_____↑↑_____*_____↑

That is, *það* blocks Pn/e$_{subj}$ from maching the Λ-Fin head by intervention, hence being ungrammatical (like expletives in comparable constructions in related languages).

A fact highlighted by this approach, but not explained by it (or by any other approach I'm aware of), is that *Fin does not need to be overtly matched*, as seen in (64a) and the c-examples in (60)-(62). In the next section, I will discuss som further examples bearing on this issue.

6. The optionality problem

In addition to topicalization (CLn-matching), Icelandic has three overt 'EPP strategies':

- NP-movement matching Person locally, and commonly also matching CP speech event features under distant Agree, that is, Fin (its Speech Local factor), the speaker/hearer features, Λ_A and Λ_P, and potentially also CLn (in the absence of a 'stronger' CLn-matcher)
- Expletive merger, (negatively) matching Fin and Λ_A-Λ_P but not matching Pn
- Stylistic Fronting, (negatively) matching only Fin

Icelandic thus demonstrates that EPP effects are reflections of distinct matching relations that overlap rather generally in languages like English, but can be teased apart when a richer cross-linguistic variation is carefully scrutinized.

There can be little doubt that Pn and the features of the speech event are meaningful features of Universal Grammar. That is, EPP effects are not just some mystery but follow from factors that are central to language and 'make perfect sense'. Nonetheless, there are numerous 'EPP exceptions', even in English:

(67) a. As (*it) is well known ...
b. As far as (*it) can be seen ...
c. She is much smarter than (*it/*there) is her boss.
d. (I) saw him yesterday. (I) was a bit suprised.

Facts og this sort should not, in my view, be interpreted such that EPP effects are uninteresting or unimportant, but they should get *some* theoretical interpretation.

'EPP violations' quite generally lead to ungrammaticality in English and they are commonly unacceptable or at least awkward in Icelandic too (cf. Kosmeijer 1993), as illustrated in (68) (the minus sign in front of (68a) denotes a variable and a commonly degraded acceptability – my own judgement is a single question mark):

(68) a. – Ég vona að __ verði ekki of kalt til að synda.
I hope that will-be not too cold for to swim
Intended: 'I hope it woun't be too cold (for one) to swim.'
b. Ég vona að **það** verði ekki of kalt til að synda.
I hope that it will-be not too cold for to swim
c. Ég vona að **ekki** verði of kalt til að synda.
I hope that not will-be too cold for to swim

Thus, it seems clear that filling the left edge is in some sense a 'desirable goal'. Leaving it empty is typically construction specific, that is, clauses with a phonologically empty left edge strongly tend to serve some special function, as partly illustrated in (69):

(69) a. __ Hafa þau lesið bókina? Question
have.3PL they read book.the
b. __ Lásu þau því bókina og ... Narrative Inversion[38]
read.3PL they thus book.the and
'Thus they read the book and ....'
c. __ Kemur bíllinn! V1 exclamatives
comes3SG car.the
'Ah, there comes the car!'

[38] Typical of certain narrative texts, signalling 'narrative cohesion' (usually conditioned by a continuous aboutness topic).

d. __ Las hana ekki. Colloquial argument drop
read.1SG it not
'(I) didn't read it.'

Facts like (67) and (69) suggests that the FILL THE LEFT EDGE requirement in (70) applies:

(70) Fill the left edge unless leaving it empty serves some special function X,
X subject to cross-linguistic variation

This generalization has a suspicious conspiracy flavor and is arguably not a Narrow Syntax principle. Nonetheless, it is evidently a part of the expressive (externalization) strategies applied by individual languages such as English and Icelandic, that is, it seems to be a common PF or *performance* rule or target.

Arguably, silent but syntactically active elements are present in the left edge of all the clauses in (69): a question particle (operator) in (69a), a 'continuous topic' in (69b), a context-linking adverbial in (69c), and a positively set logophoric agent feature, $+\Lambda_A$, in (69d).[39] More problematically, however, there are also some true exceptions from (overtly) Filled Left Edge, that is, cases where leaving the left edge empty does *not* seem to serve any special function:[40]

(71) a. Við förum þegar __ verður kallað á okkur.
we go when will-be.3SG called on us
'We will go when somebody calls (for) us.'
b. Getum við farið eitthvert þar sem __ er betra næði?
can we go somewhere where is.3SG better peace
'Can we go somewhere where it is more quiet?'
c. Við fórum ekki fyrr en eftir að __ byrjaði að rigna.
we went not before than after began.3SG to rain
'We did not leave until after it began raining.'
d. Láttu mig vita ef __ slokknar ekki á ljósinu.
let me know if goes-out.3SG not on light.the
'Let me know if the light does not go out.'

[39] Actually, these elements are only segmentally silent, as clauses containing them have different prosodic properties (or so my intuition tells me, at least, but I have not made any measurements of this). Since these elements thus have both semantic and phonological correlates, they are arguably syntactically present.

[40] Notice, however, that the 'gap' in most cases of this sort is in the scope of some operator (temporal, comparative, relative, interrogative, ...). This is presumably a relevant factor, but it does not alter the fact that phonologically empty left edges are common (in operator scope domains), even in cases where the phonologial emptiness serves no special function (in these cases, it also seems to me, the left edge emptiness does not have any discernable prosodic correlates).

e. Það er ekki satt, eins og __ sést á þessu.
it is not true, as is-seen.3SG on this
'It is not true, as can be seen by this.'

f. Þetta var galli sem ég hélt að __ mætti laga.
this was flaw that I though that might.3SG fix
'This was a flaw I though one could fix.'

It has sometimes been claimed or assumed that examples like these are marked and rare (e.g., Kosmejer 1993), but they are neutral, and comparable authentic examples are easily found (e.g., on Google).

Icelandic 'true EPP violations' of this sort are confined to impersonal constructions. One might therefore wish to argue that they contain an expletive or an impersonal *pro* which negatively matches Pn and the CP speech event features under distant Agree (cf. Holmberg 2005 on somewhat similar facts in Finnish). There are two problems with this approach, though. First, EPP effects, both NP movement and Filled Left Edge, are *overt* effects. It frankly does not seem to make much sense to assume that these overt effects are *obligatorily* triggered by feature matching relations and then say that these same feature matching requirements may be satisfied by silent (semantically meagre) elements. Second, both the expletive and Stylistic Fronting are optional (without any clear semantic correlates) in many examples of this kind:

(72) a. Láttu mig vita ef __ slokknar ekki á ljósinu. = (71d)
let me know if goes-out.3SG not on light.the
'Let me know if the light does not go out.'

b. Láttu mig vita ef **það** slokknar ekki á ljósinu.
let me know if it goes-out.3SG not on light.the

c. Láttu mig vita ef **ekki** slokknar á ljósinu.
let me know if not goes-out.3SG on light.the

The unavoidable conclusion is that the matching correlations signalled by merger of *það* and Stylistic Fronting need not always be overtly expressed. In other words, (the Fin matching part of) Filled Left Edge seems to be a performance target, a 'desirable PF goal'. In this respect, Filled Left Edge differs from NP-movement, which is evidently syntactically driven by the computation of Person.

If this is the right conclusion, many traditional 'syntax' operations actually take place in PF, rather than in Narrow Syntax in the minimalist sense. Another and perhaps a more positive way to put this is to say that PF is more complex and 'more syntactic' than often assumed.

7. Conclusion

In this paper, I have discussed clausal structure and EPP effects, in particular in the light of facts and phenomena in Icelandic and English, mainly NP-movement, expletive merger and Stylistic Fronting. I have argued that these overt EPP effects illustrate that we need to tease apart the covert matching mechanisms behind them, that is:

I. Matching of grammatical Person, **Pn**, in the IP domain
II. Matching of **Fin**(iteness), at the IP/CP boarder
III. Matching of speech event participants, **Λ** ('speaker' / 'hearer'), higher in the CP domain
IV. Matching of a Context-Linking feature, **CLn**, still higher in the CP domain

While NP-movement regularly involves relations I-III, expletive merger (in Icelandic) involves only (negative) Fin and Λ matching, and Stylistic Fronting involves only (negative) Fin matching. The latter two phenomena, as well as topicalization (involving CLn-matching), yield a *Filled Left Edge*, i.e., they show or bear witness to the *Filled Left Edge Effect*, FLEE. NP-movement commonly seems to do so as well (when the moved NP is clause-initial).

All this might seem to be amenable to a strictly syntactic analysis. Problematically for such an analysis however, there are numerous true exceptions from Filled Left Edge (as opposed to Person driven NP-movement), that is, cases where leaving the left edge empty does *not* serve any special function, as far as can be seen. This suggests that Filled Left Edge, in contrast to NP-movement, is a performance target, that is, a 'desirable PF goal' rather than a syntactic requirement. Nonetheless (and interestingly), the PF processes leading to Filled Left Edge reflect syntactic matching relations. NP-movement, on the other hand, seems to be both syntactically driven (by the computation of Person) and to also take place in syntax, prior to transfer.

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