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ON NULL ARGUMENTS

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1. Introduction*

Argument drop is subject to both clause-external and clause-internal restrictions. The best known type of clause-internal restriction is Agr-linking, illustrated in (1) for subject drop and (2) for object drop:1

(1) Parli islandese. Italian
   speak.2SG Icelandic
   ‘You speak Icelandic’

(2) mā wəxwar Pashto
    me.OBLIQUE eaten.3.F.SG
    ‘I ate it.’ (e.g. the apple)

Agr-linked object drop does not seem to be common cross-linguistically (see the overview in Y. Huang 2000:78ff). In contrast, many languages have clause-externally conditioned object drop. This is illustrated in (3) for three such languages (all lacking object Agr); the underlined matrix subject is either the only (as in 3b) or a possible (as in 3c) antecedent of the null object:

(3) a. Old Norse (Sigurðsson 1993:259):
    ... ok munu nú taka __ övinir þínir.
    ... and will now take (it) enemies your
    ‘... and your enemies will now take (your inheritance).’

b. Imbabura Quechua (Cole 1987:600):
    Juzi nin Marya __ juyanata.
    Juzi says Marya (him) will love

c. Finnish (Y. Huang 2000:86):
    Kalle väittää että Pekka uhkaili __.
    Kalle claims that Pekka threatened (him/...)

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1 Note, however, that it is often difficult to distinguish between incorporated pronominal objects and ‘true’ object agreement in languages of this sort (see the discussion in Baker 2001:145ff).
In languages of this sort, the silent object is **TOPIC-LINKED**, as in (3a), **ANTECEDENT-LINKED**, as in (3b), or optionally linked to either an antecedent or a (distinct) topic, as in (3c). Other languages that have clause-externally linked object drop include Chamorro, Chinese, Hungarian, Japanese, Korean and Thai (Y. Huang 2000:85ff). However, even though referential object drop of this relatively unrestricted sort is more common than often assumed (cf. discussion in Cummins & Roberge 2005), it seems to have a more limited distribution than referential subject drop. For instance, it is absent from Italian:

(4) *Gianni sa che Maria __ vide.

Gianni knows.3SG that Maria (him) saw

Topic-linking and antecedent-linking (often referred to as control) are two types of **CONTEXT-LINKING**. It is clear that object drop of the Pashto type in (2) is not only Agr-dependent but also topic-linked. Also, 3rd person subject drop of the Italian type has to link to a discourse topic, usually the closest one (see Grimshaw & Samec-Lodovici 1998). Linking of 1st and 2nd person pro to the speaker and hearer is also context-linking of sorts. Sigurðsson (2004a,b) refers to the speaker/hearer features as the logophoric agent (speaker) and the logophoric patient (hearer), $\Lambda_A$ and $\Lambda_P$ for short. Given these and a Top(ic) feature, in the spirit of Rizzi (1997), the relevant feature content of the CP domain for our purposes is as sketched in (5):

(5) $\left[ CP .. \Lambda_A .. \Lambda_P ... \text{Top} ... \right]_{IP} ...

We can now state the **CONTEXT-LINKING GENERALIZATION** in (6):

(6) a. Context-linking features of the CP domain include at least $\Lambda_A$, $\Lambda_P$ and Top

b. Any referential pronoun, overt or silent, positively matches a context-linking CP feature

Thus, the context-linking features of the CP domain enter into two-directional matching relations, one with clause internal elements (that may or may not be spelled-out) and one with clause-external topics and/or participants of the speech event. Context-linking is thus a ‘transitive’ matching relation (where $\Lambda \leftrightarrow B$ reads ‘$\Lambda$ is matched by $B$’ or ‘$B$ is interpreted in relation to $\Lambda$’):

(7) Context $\leftrightarrow$ CP features $\leftrightarrow$ IP-internal elements

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2 ‘Lambda’ in line with ‘phi’ and ‘theta’ (but capital $\Lambda$ to avoid confusion with lambda calculus). As argued in Sigurðsson (2004b), the simple notions speaker and hearer or addressee are too simple and thus misleading.
On this understanding, all referential argument drop is subject to one of two types of restrictions: (i) context-linking only, or (ii) context-linking and some kind of clause-internal restriction.

Agr-linking is the best known type of clause-internal restriction on null-arguments, common for subject drop, less common for object drop. However, null-arguments in many languages are subject to another, much more salient, clause-internal restriction. We refer to this condition as the **EMPTY LEFT EDGE CONDITION (ELEC)**:

(8) The left edge of a clause containing a silent referential argument must be phonetically empty (in language or construction X)

**ELEC** is a salient feature of Germanic null-argument constructions, as illustrated for Icelandic subject drop in (9)-(10); the initial dash indicates Spec,CP and the postverbal dash indicates Spec,IP:

(9) __ Komum __ ekki á morgun
    come.1PL not on tomorrow
    ‘We’re not coming tomorrow.’

(10) *Á morgun komum __ ekki.
    on tomorrow come          not

We study here the properties and domain of ELEC and other similar emptiness conditions, above all in the Germanic languages. We pursue the idea that context-linking of null-arguments is generally blocked in Germanic if Spec,CP is lexicalized (for related ideas, see Haegeman 1987, 1990). This is sketched in (11) for only the Top feature (relevant for 3rd person pro; for 1st and 2nd person pro, the context-linking feature is $\Lambda$ or $\Lambda F$, respectively); Spec denotes a lexicalized Spec,CP:

(11) a. *[CP ... Top ... SPEC ... [IP ... $\emptyset$ ... $\emptyset$ ...]

\[\text{Top matching by } \emptyset\]

b. [CP ... Top ... $\emptyset$ ... [IP ... $\emptyset$ ... $\emptyset$ ...]

\[\text{Ok Top matching by } \emptyset\]

On this analysis, ELEC is basically an intervention effect. In spite of this ‘syntactic appearance’, however, there is strong evidence, above all from Icelandic, that emptiness conditions of this sort are *operative in PF*. We come to two conclusions of central theoretical interest and importance:
A. There are no inherent or ‘lexical’ differences between different types of null-arguments, such as pro and null-topics or null-variables. Rather, the differences between, e.g., pro-drop in Romance, and so-called topic drop in Germanic reduces to intervention.

B. The computation proceeds after transfer to PF, that is, much of ‘syntax’ in the traditional sense is actually ‘PF syntax’, invisible to the semantic interface.

2. A uniform approach to null-arguments

Since the pioneering work of C.-T. J. Huang (1984, 1989), a sharp distinction has been drawn between pro drop and ‘topic drop’. Thus, while the silent subject in Romance examples like (1) were analysed as pro, the null-subject in Germanic examples like (9) and (12) were taken to be null-topics. The dash indicates the Spec,IP position, whereas the clause-initial position is Spec,CP:

(12) (Ich) kenne __ das nicht. German
    (I) recognize __ that not
        (Sigurðsson 1993:254)

The major reason why silent subjects in examples of this sort were taken to be null-topics was that they are confined to clauses with an empty left edge (Spec,CP) as illustrated in (13) (from Sigurðsson 1993:255):

(13) *Jetzt kenne __ das nicht. German
    now recognize __ that not

Within Government and Binding theory, the IP-internal subject trace was a variable (see Chomsky 1982:78ff), that is, an empty [–pronominal] category, whereas the Italian type of subject pro was analyzed as an empty [+ pronominal] category. Accordingly, the Germanic type of null-subjects fell under binding principle C, like R(eferential)-expressions, while Italian pro was subject to binding principle B. This approach made the prediction that Germanic null-arguments should be excluded from being A-bound, in accordance with binding principle C, thus crucially differing from pronominal categories, including overt pronouns and Italian pro.

Under the UNIFORM APPROACH TO NULL-ARGUMENTS which we pursue here, null-arguments are uniform in the sense that there are no underlying inherent or ‘lexical’ differences between them. The differences between seemingly different types of null-arguments stem from restrictions in the PF component of language, not from the properties of putative ‘lexical zeros’. In our approach, all pronominal arguments are syntactically computed feature bundles that may or may
not be spelled out in PF, depending on PF parametric options and/or language-specific low-level PF spell-out rules and constraints. In general, the simplest approach, which we adopt here, is that all spell-out morphology and phonology is post-syntactic. We assume that Germanic ‘null-topics’ are just ordinary null-arguments, inherently non-distinct from the Romance type of null-arguments. The question that arises, then, is why they are subject to clause-internal restrictions not operative in prototypical pro-drop languages of the Romance type. In the next section, we present a brief overview of Germanic argument drop, illustrating that it is generally subject to the Empty Left Edge Condition, ELEC. It should be emphasized, however, that our goal is to develop a general understanding of argument-drop phenomena, and not to develop a narrowly grammatical analysis of the details of the null-argument variation found across languages and internally to individual languages. In our view, much of this variation is decided by (strictly speaking) grammar-external phenomena.

3. Germanic argument drop and the ELEC

As is well-known, referential null-subjects are common in various types of informal written and spoken registers in the Germanic V2 languages, for instance in diaries, various kinds of short messages, and in conversations (mainly in replies to questions). We illustrate this kind of SUBJECT DROP for Icelandic:

(14) Hvar er Pétur? Kemur þarna.
   where is.3SG Peter comes.3SG there
   ‘Where is Peter? Here he comes.’

(15) a. Ligg á ströndinni og slappa af.
    lie.1SG on beach.the and relax.1SG off
    ‘I’m lying on the beach, relaxing.’

b. Komum strax.
   come.1PL right-away
   ‘We’ll be right there.’

The agreement morphology is clearly not needed to identify the null-subject, as seen by the simple fact that (like English) the Mainland Scandinavian languages allow this type of subject drop, despite not having any verb agreement.

To our knowledge, all modern V2 Germanic varieties that have subject drop of this sort obey the ELEC, that is, the left edge or the Spec,CP of the clause must be

3To an extent, the same applies to English (see, e.g., Haegeman 1990, Horsey 1998, Deal 2005), but given limited space, we exclude English from our discussion.
be phonetically empty. This was illustrated above for German by the contrast in (12)-(13). Regular Conjunction Reduction is generally also subject to ELEC, as illustrated for Icelandic in (16):

(16) a. María keypti blaðið en ___ vildi ___ ekki kaupa bókina.
   Mary bought paper.the but wanted not to.buy book.the
   ‘Mary bought the newspaper, but did not want to buy the book.’

   b. * María keypti blaðið en bókina vildi ___ ekki kaupa.
      Mary bought paper.the but book.the wanted not to.buy

   c. María keypti blaðið en bókina vildi hún ekki kaupa.
      Mary bought paper.the but book.the wanted she not to.buy

As seen, ELEC applies when the second conjunct contains a null-subject, but not when it contains an overt, postverbal one. This might seem to be a matter of course, but we will argue that this is an important observation (see section 4). V2 Germanic OBJECT DROP is illustrated for Icelandic in (17). The dashes show the empty left edge (Spec,CP) and the canonical object position. As indicated, the subject pronoun is preferably or even obligatorily cliticized onto the verb in examples of this sort:

(17) A: Hvað finnst þér um nýja þú sérðinn?
   What think you about new janitor.the

   B: ___ Veit’é(g) ___ ekki, ___ hef’é(g) ekki séð ___ enn.
   know’I not, have’I not seen yet.

Many Scandinavian varieties also have object drop in second conjuncts, under coreference with an overt object in the first conjunct (cf. Áfarli and Creider 1987, Rögnvaldsson 1990). This CONJUNCT OBJECT DROP (COD) is illustrated in (18). The Icelandic example in (18a) is a recent newspaper headline (mbl.is | 27.12.2005), and the Norwegian one in (18b) is from Faarlund et al. (1997:715):

4 West Flemish does not seem to have any subject drop of this sort (Haegeman 1996).
5 Conjunction Reduction in at least Dutch and German tolerates certain exceptions to ELEC (see te Velde 2006).
6 Similar types of topic object drop are found in some Romance varieties, including Quiteño Spanish (Suñer & Yépez 1988) and River Plate Spanish (Masullo 2003).
7 However, object drop is much more marked in the second clause than in the first one (even unacceptable to some speakers). In general, dropping HUMAN objects is more marked than dropping NON-HUMAN objects, but other factors are probably also involved.
Similar instances of Conjoint Object Drop were frequent in Old Italian (see Egerland 1996:284ff), and can even be found sporadically in Modern Italian. COD is also found in, e.g., Polish and Russian (see McShane 2005). Both these object drop types, the general type and COD, observe the ELEC in the Germanic V2 languages, as illustrated for the general type in (19)-(20):

(19)  (Það) þekki’é(g) __ ekki. Icelandic (that) recognize’I not

(20)  *Núna þekki’é(g) __ ekki. now recognize’I (that) not

As illustrated for COD in (21), both subjects and non-subjects in the left edge of the second conjunct render the null-object illicit. The first dash indicates the left edge (Spec,CP); the second one indicates Spec,IP; the third dash shows the canonical object position, and the fourth one the canonical position of the adverb síðan ‘then, later on’:

(21)  a. Þeir kysstu hann fyrst og __ föðmuðu __ __ síðan They kissed him first and __ embraced (they)(him) __ then

   b. *Þeir kysstu hann fyrst og síðan föðmuðu __ __ __ they kissed him first and __ then embraced (they) (him) __

   c. *Þeir kysstu hann fyrst og síðan föðmuðu þeir they kissed him first and then embraced they (him) __

   d. *Þeir kysstu hann fyrst og þeir föðmuðu __ __ síðan they kissed him first and they embraced (him) __
4. The emptiness conditions are operative in PF

We now return to the properties of ELEC. Consider **Recipe Object Drop (ROD)**, found in recipes and other instructions, as in (22), from Massam & Roberge (1989:135), and as in the Hungarian example in (23):

(22) Take 3 beaten eggs. Put __ in a hot oven for 5 minutes. Watch __ carefully.

(23) Végy három tojást. Üsd bele __ egy tálba.

   take three eggs. break.IMP.2SG.DEF into a bowl

Verjed fel __ óvatosan.

   beat IMP.2SG.DEF up carefully

ROD is cross-linguistically very common. In all ROD languages we know of, subjects must never be spelled out in ROD clauses, not even in those languages where infinitives (rarely) or imperatives (more commonly) otherwise allow overt subjects. This is illustrated in (24) for French:

(24) Prenez trois oeufs. (*Vous) déposez __ dans un bol. (*Vous) battez __ doucement.

   take three eggs. (*You) break __ into a bowl. (*You) beat __ gently.

Thus, ROD generally observes an **EMPTY SUBJECT CONDITION (ESC)** reminiscent of the other empty left edge phenomena we have been looking at.

Icelandic has a rich system of imperative structures which bear in an interesting way on ESC, so we will study Icelandic ROD more closely in the next subsection. Before turning to Icelandic, it is however worth noticing that referential null-objects seem to be generally acceptable under **strong deixis**, referring to objects present in the real world situation of the utterance, as in warning and instructing signs, instructions on bottles and other kinds of packagings, ‘motherese’ instructions, and so on:

(25) a. Here, read __!

b. Shake __ well before opening __.

c. Wet paint. Do not touch __.

**Deixis Object Drop** of this sort is found even in those languages that do not allow ROD. Expectedly, strong deixis facilitates context-linking in null-argument constructions. In section 5, we will briefly address the question of why Deixis Object Drop and ROD are more widespread than other types of object drop.

Recall our analysis in (11a) of violations against ELEC in Germanic as minimality violations or an intervention effect. The lexical material in Spec,CP, simply denoted as **SPEC** in (11a), intervenes between the silent Top feature of the
CP domain and the IP-internal (3rd person) null-argument, thereby blocking Top matching by Ø. It is a matter of debate whether or not the imperative verb raises into the CP domain, across Top (cf. Jensen 2003 vs. Platzack & Rosengren 1997). Thus, even for V2 Germanic, it is also unclear whether the imperative subject raises into Spec,CP. If it does, then the Empty Subject Condition on Recipe Object Drop might be just a subcase of the general ELEC. However, in the absence of clear evidence, we do not take a stand on the issue here. For our purposes, it is sufficient that overt subjects in imperative ROD clauses evidently render the object drop ungrammatical. We illustrate this for Icelandic in (26):

\[(26)\]
\[\begin{array}{ll}
\text{a. Skerið} & \text{(*þið)} \\
\text{cut.2PL} & \text{(*you.PL)} \\
\text{--- i litla bita.} & \text{in small pieces} \\
\end{array}\]

‘Cut in small pieces.’

\[\begin{array}{ll}
\text{b. Skerið} & \text{þau} \\
\text{cut.2PL} & \text{you.PL} \\
\text{þið} & \text{them} \\
\text{i litla bita.} & \text{in small pieces} \\
\end{array}\]

‘(You) cut them into small pieces.’

Regardless of the exact position of the verb and the subject, we can analyze the Empty Subject Condition on ROD as an intervention effect, parallel to the general ELEC in V2 Germanic:

\[(27)\]
\[\begin{array}{ll}
\text{* [CP ... Top ... SUBJ ... Ø ... *Top matching by Ø} \\
\end{array}\]

Thus, we seemingly have a syntactic account of ESC and of ELEC in general. Notice also that there are structural contraints on the empty left edge, that is, ELEC does not simply require that the ‘initial phonological stuff’ of an utterance not be spelled out, as illustrated in (28):

\[(28)\]
\[\begin{array}{ll}
\text{Nei, } & \text{Þekki’é(g) } \\
\text{no, recognize’I} & \text{ekki. not} \\
\end{array}\]

‘No, him I don’t recognize.’

However, if left edge emptiness conditions are clear cut syntactic conditions, then it is remarkable that overt objects are not constrained by any conditions of this sort. In accordance with the Context-Linking Generalization in (6), overt referential 3rd person pronouns must also match Top, but they are obviously not ‘disturbed’ by overt left edge elements. We just saw this in (26b) for Icelandic imperatives, and the same fact was illustrated for potential Conjunction Reduction.

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\[8\] We do not consider infinitive ROD here, since subjects are in any case disallowed in most infinitives in most languages, in spite of well-known exceptions, for example in Hungarian and Icelandic (see Dalmi 2005).
structures in Icelandic in (16c). The same holds for objects in potential object drop constructions. Consider for instance the unacceptability of the null objects in (21c,d), and compare it to the grammaticality of the corresponding overt pronouns in (29):

(29) a. Þeir kysstu hann fyrst og síðan föðmuðu ðeir hann __
    they kissed him first and then embraced him

b. Þeir kysstu hann fyrst og þeir föðmuðu __ hann síðan
    they kissed him first and they embraced (him) then

This would seem to suggest that ELEC and ESC are not really syntactic but rather due to some ‘stylistic’ restrictions in PF. As a matter of fact, Icelandic ROD is sensitive to reduction of the imperative subject, taking place in shallow phonology. We present the facts showing this below.

The basic 2nd person singular imperative of most Icelandic verbs is formed on the basis of the infinitive, by cutting the infinitival suffix -a. This is illustrated for two verbs in (30):

(30) a. Infinitive
    brjóta ‘break’
    fara ‘go’

b. Basic 2SG imperatives
    (poetic and biblical language)
    brjótað (þú)    farðuð (þú)

We use the cross sign to indicate that the basic 2SG imperative is confined to solemn language. In language use of this sort, an overt full subject pronoun is optional, as indicated in (30b).

In ordinary language use, written or spoken, the normal form of the 2SG imperative is a cliticized form, based on the basic imperative plus a reduced form of the 2SG pronoun þú ‘you’, for instance /brjótaþú/ = brjóttu ‘break-you’ and /farþú/ = farðu ‘go-you, leave-you’. In the 2PL, there are three common options: a bare exhortative form (homophonous with 2PL indicatives / subjunctives), exhortative plus a clitic and exhortative plus a full pronoun. This is sketched in (31), where the clitics are set boldface:

(31) a. 2SG imperatives + clitic
    brjóttu (*þú)     farðu (*þú)
    break.IMP-CL2SG (*you.SG)     go.IMP-CL2SG (*you.SG)

b. 2PL exhortatives:
    b1. bare:  
        brjóttð       fariðð
        break.2PL-CL2PL (*you.PL)   go.2PL-CL2PL (*you.PL)
    b2. + clitic:  
        brjóttði (*þið)     fariðði (*þið)
          break.2PL-CL2PL (*you.PL)   go.2PL-CL2PL (*you.PL)

In addition, there are so-called clipped singular imperative forms, used in combination with a heavily stressed strong pronoun, for instance farð þÚ (sjálfur) ‘YOU go (yourself)’. These are not relevant in the present context, but for discussion, see Orešnik (1980).
Now, consider the following ROD and Empty Subject Condition facts:

(32) Takið þrjú egg.
    take.2PL three eggs
    a. *Brjótið þið __ i skál og ...
    break.2PL you.PL (them) into bowl and ...
    b. ?? Brjótiði__ i skál og ...
    break.2PL-CL2PL (them) into bowl and ...
    c. Brjótið__ i skál og ...
    break.2PL (them) into bowl and ...

(33) Taktu þrjú egg.
    take.2SG three eggs
    a. * Brjót þú __ i skál og ...
    break.IMP you.SG (them) into bowl and ...
    b. ? Brjóttu __ i skál og ...
    break.IMP-CL2SG (them) into bowl and ...
    c. ♦ Brjót __ i skál og ...
    break.IMP (them) into bowl and ...
    (♦ = solemn language)

As seen, the more reduced the subject is, the more acceptable the silent object. Notice in particular that the plural ??brjótið in (32b) is more marked than the singular ?brjót in (33b). The reason is evidently that the plural clitic gets a secondary (trisyllabic) stress, whereas the singular clitic gets no such stress. That is, the difference in acceptability between the plural and the singular seems to have a purely phonological source. Moreover, if the vowel of the singular clitic disappears, due to hiatus, then ROD is possible.

(34) Taktu þrjú egg. Brjótþ t'__ i skál og ...
    take.IMP-CL2SG three eggs. break.IMP-CL2SG into bowl and ...

Notice that the form of the imperative brjót' is distinct from the basic imperative brjót, i.e., it has evidently arisen through cliticization of the subject and subsequent truncation of the vocalic part of the clitic:

(35) /brjótþú/ → brjóttu → brjót'

In other words, the subject is there in the syntax, but it must be hidden in PF.
The same applies to null-arguments in Germanic (or at least Icelandic) argument drop constructions in general, that is, they are clearly visible in syntax (see Rögnvaldsson 1982). Consider (36):

(36) Okkur hafði orðið kalt
    us.DAT had.SG become cold.SG
    og __ vorum __ líka þreyttir / *var líka þreytt.
    and were.PL also tired.PL / *wasalso tired.SG

'We had become cold and were also tired.'

The predicate *kalt* in the experiencing sense of ‘cold’ takes a dative subject, whereas the predicate *þreyttur* ‘tired’ takes a nominative one. As has been widely discussed, only nominatives trigger verb and predicate agreement in finite clauses in Icelandic. Accordingly, the verb and the predicative adjective in the first conjunct in (36) show up in non-agreeing 3P.SG default forms, *hafði* and *kalt*, whereas the verb and the predicative adjective in the second conjunct show up in agreeing plural forms, *vorum* and *þreyttir*. Evidently, the features of the nominative subject of the second conjunct are there, thus triggering agreement. Agreement and reflexivization can be used to illustrate the same for null-objects. It is evident, therefore, that Icelandic finite null-argument structures are reduced (or, rather, not fully expressed) in PF only; this is presumably also the case in the other V2 Germanic languages, or even in general. We conclude that the emptiness conditions studied here are *operative in PF*.

5. Concluding remarks

The conclusion or result that empty left edge conditions on referential null-arguments are PF conditions may seem remarkable. However, on the anti-lexicalist, computational approach to pronouns, taken here, this is what one would expect. Recall that in our approach pronominal arguments are syntactically computed feature bundles that may or may not be spelled out in PF, depending on PF parametric options and/or language-specific low-level PF spell-out rules and constraints. The left edge conditions we have been studying here are PF spell-out constraints of this sort.

Speaking in extremely general terms, we have here been following a long tradition in focusing on the conditions on silence, rather than on the conditions on sound, as it were. Sigurðsson (2004a) suggests that we should take exactly the opposite view:

Lexicalization is arguably the last resort whenever a meaningful feature cannot be conveyed in a message by any other means than the costly means of overtly expressing some item that carries the feature. Thus, instead of looking for a
‘license’ to stay empty a category is ‘happy’ with whatever ‘excuse’ it has not to get lexicalized. (Sigurðsson 2004a, n. 27, p. 254)

At some level, it seems clear that language use is subject to **Avoid Spell-Out**. If so, the left edge phenomena we have been studying here are not really conditions on silent arguments. Rather, lexicalized or filled left edges force the spelling-out of arguments that would otherwise have been ‘happily silent’. We might refer to this as the **Filled Left Edge Trigger**. For expository purposes, however, we have here opted for talking about left edge emptiness conditions on null-arguments instead.

Consider the fact that Icelandic has lost ‘genuine pro’ without any **concomitant change of grammar**, in particular, without any relevant weakening of its robust agreement morphology. This has been a recalcitrant problem for the traditional Government and Binding theoretic approach to ‘genuine pro-drop’ vs. ‘topic drop’. Given the present approach, there is no need to assume a mysterious loss of (the identification of) a special kind of putative lexical zeros. Rather, the change can be analyzed in extremely simple terms: the domain of ELEC was extended to include virtually all referential null arguments in declarative clauses.\(^\text{10}\)

Even Agr morphology in the Italian type of languages can be analyzed as an intervener, blocking referential object drop in finite clauses, as opposed to Recipe Object Drop and Deixis Object Drop, where there is no intervening agreement morphology. In both these types of referential object drop, a large amount of information is given in the utterance context. Plausibly, the pressure to violate Avoid Spell-Out increases the less context information one has, formal written language scoring lower on the ‘context information scale’ than most other registers. If so, the explanation of why these types are cross-linguistically more common than other object drop types is partly linguistic (absence of intervention) and partly communicative.\(^\text{11}\)

Given that both ELEC in general and the (perhaps more specific) Empty Subject Condition on Recipe Object Drop are PF conditions, it might seem unexpected that they can be analyzed in terms of minimalism, as intervention effects on feature matching. However, as has been extensively argued by Sigurðsson (most recently in 2006a, 2006b), PF (including morphology) is clearly much more ‘syntactic’ than usually assumed. It is evidently a highly sophisticated system that is able to ‘see’ syntax and partly operates in a ‘syntactic manner’, with abstract feature values and feature matching processes, even though it takes place

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\(^{10}\) Certain null-arguments were evidently subject to ELEC in Old Norse (cf. Hjartardóttir 1987, Sigurðsson 1993).

\(^{11}\) In addition, as argued by Deal (2005), much null-argument variation must plausibly be accounted for in terms of constructions, that is to say language-specific low-level PF spell-out conventions (if one likes, the intervention effects we have been studying can be seen as ‘constructions’ in the relevant sense).
after transfer (from Narrow Syntax to the interfaces) and therefore operates on structures and elements that are no longer in sight for the semantic interface. That is, as easily observable language variation would seem to suggest, the computation proceeds on the PF side.

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Abstract

Argument drop is commonly subject to the Empty Left Edge Condition, ELEC, requiring that the left edge of the clause not be spelled out. ELEC can be explained in terms of minimality, as an intervention effect (blocking context-linking of the null-argument). We argue that sensitivity to this effect is the most important ‘pro drop parametric’ factor and that there are no inherent or lexical differences between ‘different types’ of null-arguments. However, we also present striking evidence from Icelandic that emptiness conditions of this sort are operative in PF, a conclusion that suggests that much of ‘syntax’ in the traditional sense is actually morphosyntax or ‘PF syntax’, invisible to the semantic interface.