Semi null-subject languages, expletives and expletive *pro* reconsidered[*]

Theresa Biberauer

Linguistics Department, University of Cambridge

This paper focuses on a class of null-subject languages (NSLs), the so-called *semi* NSLs that have, since Rizzi (1986), generally been assumed to permit null subjects only in expletive contexts, i.e. to license only expletive *pro*. Against the backdrop of current minimalist theory (Chomsky 2000 and following), it is argued that the Germanic languages which have been ascribed semi NSL status can be shown to exhibit very different subject properties, with Spec-TP not constituting a specially reserved subject position in all cases. This, in turn, raises questions about the role of expletives, about the validity of postulating expletive *pro* and also about the feasibility of identifying a coherent class of semi NSLs. We argue that T's feature composition, particularly the nature of the movement diacritics it bears, and the manner in which verbal agreement morphemes are stored in the lexicon (independently as in inflectionally "rich" languages or not as in "poor" languages) determine whether a language will or will not permit phenomena that have traditionally been associated with semi NSLs. The proposed analysis entails that grammars with very different T-properties may in fact give rise to (a subset of) these phenomena, with postulation of expletive *pro* not being justified in the majority of cases and the expletive status of certain long-accepted expletive elements being rendered dubious.

1   INTRODUCTION

The focus of this paper is a (putative) class of null-subject languages (NSLs) often referred to as *semi null-subject* or *semi pro-drop languages* (cf. i.a. Platzack 1985/1987, Koster 1987, Gilligan 1987, Grewendorf 1989, Hermon & Yoon 1989, Falk 1993a, Huang 1994). As Huang (2000: 53) notes, there is some inconsistency in the use of the designation *semi NSL* as it is sometimes equated with the more general notion of 'restricted *pro*-drop', i.e. *pro*-drop which differs from that found in Italian-style full NSLs in permitting fewer null-subject options, regardless of the type of restriction. Accordingly, Huang (*ibid.*) proposes three sub-types of semi NSLs. These are given in slightly adapted form in (1):

(1)   a.   those which only permit non-argumental expletive omission, i.e. omission of "true" expletives, which do not bear a theta-role (arguments of weather verbs, etc. are therefore excluded and must be overtly realised) – e.g. Dutch, German

b.   those which permit both non-argumental expletive omission and omission of so-called *quasi-arguments* (i.e. arguments of weather verbs, etc.) – e.g. Icelandic, Yiddish

c.   those which permit omission of non-argumental expletives, quasi-arguments and, under certain restricted circumstances, referential subjects – e.g. Finnish, Hebrew, Bavarian German, Ukrainian

Our concern in this paper is exclusively with (1a,b). This is principally for two reasons. Firstly, recent research has shown that (1c) is extremely unlikely to constitute a single (sub-) type.[1] Secondly, (1a,b), but not (1c) featured in the original NSP typology proposed by Rizzi (1986; cf. also Travis 1984 and Platzack 1985/1987) and given in (2):

(2)   a.   Full NSL: licenses both referential and non-referential null pronominals (here: pro_{REF} and pro_{EXPL}) – Italian, Spanish, Greek

b.   Semi NSL Type I: only licenses null non-referential pronominals, i.e. quasi-argumental (here: pro_{EXPL+A}) and non-argumental (here: pro_{EXPL-A}) expletives – Icelandic, Yiddish

c.   Semi NSL Type II: only licenses null non-argumental pronominals (pro_{EXPL-A}), but not referential or quasi-argumental expletives – Dutch, German

d.   Non-NSL: does not license null pronominals (*pro*) at all – e.g. English, French

As is well known, classification as one of the types in (2) was predicted to depend on inflectional richness, with languages exhibiting systematically morphologically encoded distinctions between different persons and numbers being expected to license all species of *pro* as in (2a), while those with less systematically distinct encodings permit only one or more of the expletive *pro* options in (2b,c), and languages (almost) completely lacking morphologically encoded person and number distinctions do not sanction any form of *pro* as in (2d). More specifically, Rizzi (1986) proposed that (a syntactic) person specification on I was crucial for the licensing of pro_{REF}, while a lesser specification, (syntactic) number, was essential for the licensing of pro_{EXPL+A}, with languages permitting just pro_{EXPL-A} being thought to lack both (syntactic) person and number specifications, featuring only the basic [pronominal][2] specification thought to distinguish NSLs from non-NSLs (cf. Rizzi 1982).[3] This system is schematised in (3):

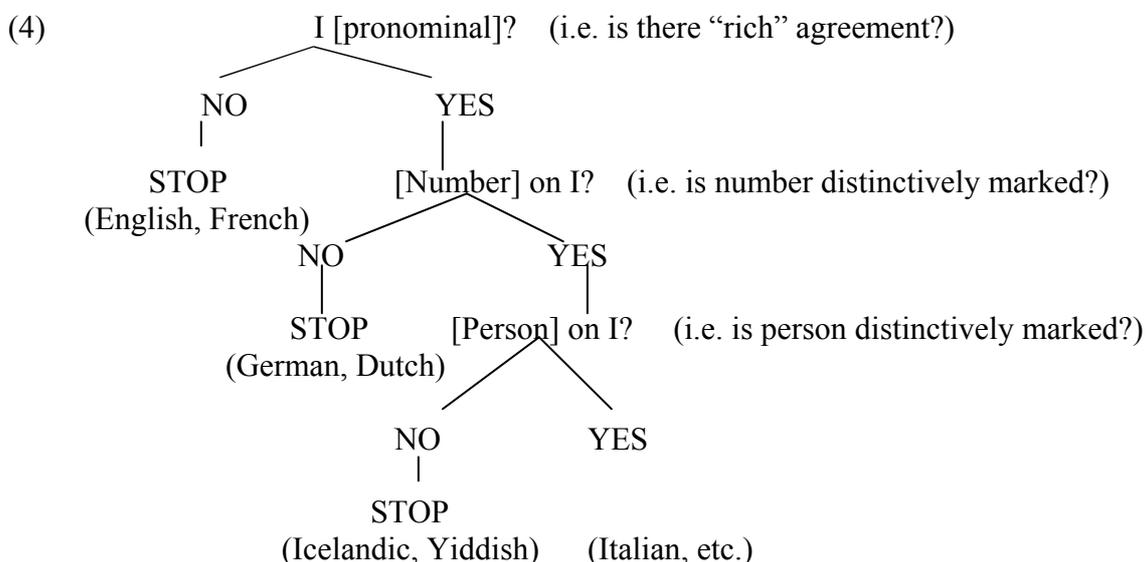(3)   a.   I specifiation: [+pronominal, +person, +number] $\rightarrow pro_{REF}$

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[1] See Holmberg (2005, forthcoming a), Holmberg & Sheehan (forthcoming), Roberts & Holmberg (forthcoming), Modesto (2008) and Shlonsky (forthcoming) for discussion of the properties of so-called *partial NSLs*. On Bavarian German, see Fuss (2005). On subject drop in Slavic, see Müller (2005, 2007) and McShane (forthcoming). For discussion of the danger of viewing all unrealised subjects as manifestations of a single underlying structure/element, see Biberauer (2008) and section 4 below.

[2] Obviously, [pronominal] here should not be equated with the [+pronominal] specification assumed to be universally common to pronominal elements in the context of GB Binding Theory. Instead, this property should be viewed either (a) as an indication of the fact that agreement inflections are independently stored in a manner that they are not in non-NSLs (cf. Alexiadou & Anagnostopoulou 1998 and Bobaljik & Thráinsson 1998 on 'pronominal Agr'), or (b) as an indication of the fact that I/T in NSLs bears a special nominal specification that is absent in non-NSLs (cf. Rizzi 1982, Holmberg 2005, forthcoming a, Roberts, forthcoming a).

[3] *Syntactic* is emphasised in each case to highlight the fact that the features intended here are visible to the computational system (i.e. in Narrow Syntax), on a par with I's [pronominal] specification; they are not just features that are distinctively realised morphologically. As observed in note 2, the relevant "visibility" might possibly be ensured by [person] and/or [number] features being bundled together as part of a distinct "pronominal agreement" feature-bundle, although this still raises the question of how the computational system would "see" the difference between an NSL system with both [person] and [number] specification and one with just [number] specification. To deal with this problem, Müller (2005, 2007) proposes a presyntactic Impoverishment operation, the output of which signals to the computational system how "rich" the agreement system in question is. We leave the precise mechanics of Rizzi's proposal aside here.

b.   I specification: [+pronominal, +number] $\rightarrow$ *pro*$_{EXPL+A}$
c.   I specification: [+pronominal] $\rightarrow$ *pro*$_{EXPL-A}$
d.   I specification: [-pronominal] $\rightarrow$ no *pro*

It is clear that we can think of (3) as a small-scale parametric hierarchy of the kind proposed by Baker (2003a) and more recently discussed by Gianollo, Guardiano & Longobardi (2008) and Roberts & Holmberg (forthcoming) – cf. (4):

(4)   I [pronominal]?   (i.e. is there "rich" agreement?)

          NO   YES

          | |

          STOP   [Number] on I?   (i.e. is number distinctively marked?)
    (English, French)

                           NO   YES

                           | |

                           STOP   [Person] on I?   (i.e. is person distinctively marked?)
                    (German, Dutch)

                                           NO   YES

                                           |

                                           STOP
                    (Icelandic, Yiddish)   (Italian, etc.)

The difficulties associated with the inflectional richness aspect of the system have been much discussed (cf. i.a. Jaeggli & Safir 1989 and Müller 2005, 2007 and Tamburelli 2006 for more recent discussion) and will not be our primary focus here. Our chief concern will be the difficulties that Rizzi's expletive-related predictions have encountered.

Evidently, the implicational relations noted above say nothing about the possibility of a system having both overt and covert expletives; in reality, however, a great many languages appear to allow for precisely this phenomenon. In the case of the Germanic languages investigated by Rizzi and others, where expletives are systematically realised in clause-initial position, but fail to be realised clause-internally, an explanation appealing to parameter interaction became standard during the GB era: because the languages in question are all Verb Second (V2) languages, the positive setting of the V2 parameter rules out the possibility of null expletives in clause-initial position. Leaving aside the complications associated with an account of this type (see section 2.1 for further discussion), it is not so clear how parameter interaction can account for systems in which overt and null expletives alternate in the same environments. As we will see in section 3.3, certain varieties of Dutch and Afrikaans and Faroese also seem to exhibit this phenomenon; looking beyond Germanic, we see that it is also attested in various creoles (cf. Nicolis 2005, 2008) and in Finnish (Holmberg 2005). Clearly, this needs to be accounted for. Furthermore, the system represented in (3,4) says nothing about the fact that the various instantiations of *pro*$_{EXPL-A}$ do not necessarily exhibit uniform behaviour in all the languages in which they occur.[4] Thus, for example, it may occur in impersonal passives in Afrikaans and, while it may not in presentationals/existentials. This also requires explanation. What these complications suggest is that understanding of the availability of expletive *pro* and, by extension, of semi NSLs

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[4] As Rizzi's semi NSLs exhibit currently still only very poorly understood language-specific variation in respect of the realisation of expletives in raising structures, we leave the behaviour of this expletive aside here (cf. Cardinaletti 1990: 93ff on "external argument *es*" and Vikner 1995: chapter 7 for discussion).We also omit discussion of the "anticipatory expletive" in structures like *It is possible that he will lose* on the grounds that this element may in fact be argumental (cf. Bennis 1986 and Vikner 1995: chapter 7 for discussion).

requires a theory that extends beyond the agreement properties of I. This paper aims to highlight some of the considerations that a theory of this type would need to take into account and also reassesses the importance of I's (syntactically encoded) agreement properties.

Empirical concerns aside, there are also theoretical considerations that have arisen within the context of the Minimalist Program that potentially compromise the system illustrated in (3,4). On the one hand, there is an influential minimalist analysis of full NSLs, advocated notably by Barbosa (1995) and Alexiadou & Anagnostopoulou (1998; henceforth: A&A), in terms of which V-to-I/T movement in full NSLs suffices to satisfy the requirement that I attract the subject into its local domain (cf. the Extended Projection Principle/EPP of Chomsky 1981). If this is indeed the case, there is no need to postulate projection of Spec-TP, at least in cases where all the verb's arguments are present and Spec-TP would only have been projected to host an EPP-satisfying pro_{EXPL-A}[5] This, in turn, implies that pro_{EXPL-A} may not in fact be a lexical item available to full NSLs, which obviously raises questions about the existence of a lexical item of this type in semi and other non-full NSLs. A second theoretical issue that has come to the fore during the minimalist era is the question of the universality of the EPP (cf. i.a. Carnie & Guilfoyle 2000, Davies & Dubinsky 2001, Svenonius 2002a, Richards & Biberauer 2005). Whereas projection of a canonical subject position (here: Spec-TP) was widely assumed to be a universal feature of natural languages during the GB period, changes in theoretical assumptions about the factors determining movement and specifier projection render this earlier assumption highly suspicious in the context of minimalism (cf. also Epstein & Seely 2006 for detailed discussion). If Spec-TP does not in fact have to be projected in all languages, not just because there is an alternative means of satisfying the EPP (cf. full NSLs on the Barbosa/A&A view), but because this requirement may not even hold in some languages, it is clear that questions must once again be asked about the necessity of postulating pro_{EXPL-A}. Doing so is one of the aims of this paper.

To summarise, then, this paper has two major aims: firstly, to reconsider the Germanic languages which were initially cited as canonical semi NSLs in order to establish whether their null-subject behaviour does indeed require the postulation of expletive *pro* (*pro_{EXPL}*); and secondly, to re-evaluate the status of semi NSLs in Rizzi's original typology.

The paper is structured as follows: section 2 introduces the subject-related phenomena that led to German and Icelandic becoming established as canonical semi NSLs, and also presents some theoretical developments that call for a reconsideration both of this classification and of the very notion 'semi NSL'. Section 3 revisits the Germanic facts, highlighting several empirical points that call the GB analysis into question and arguing for a genuinely minimalist analysis of the relevant phenomena. Section 4 concludes by briefly considers the implications of the proposed analyses for *pro_{EXPL}* and the notion 'semi NSL' more generally.

2   BACKGROUND
2.1   Canonical semi NSLs: the case of German and Icelandic

In this section, we will briefly present the data on the basis of which Icelandic and German became established as canonical Type I and Type II semi NSLs respectively. These are of two main types, namely data relating to the absence of overtly realised expletives and data featuring non-expletive subjects that appear not to have undergone raising to Spec-TP.

Let us first consider the expletive distribution data. Being V2 languages, both Icelandic and German require overtly realised expletives in clause-initial position: in neutral declaratives in which no XP has been focused or topicalised, expletives fill the preverbal slot, which we will assume to be Spec-CP here (cf. Schwartz & Vikner 1996 for detailed

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[5] A&A (1998: 531ff) acknowledge that the situation may be more complex in cases traditionally analysed as involving pro_{REF}, where the absence of a subject pronominal would necessarily have implications for, among other things, one's theory of theta-role assignment. The same holds for "weather" arguments, i.e. pro_{EXPL+A}.

discussion of the categorial status of V2 clauses).[6] This is illustrated in (5a) for the Icelandic "weather"/"ambient" expletive and in (5b) for a German presentational structure:

(5)   a.   Það rigndi í gær   (Icelandic)
                 it   rained yesterday
                 "It rained yesterday"

        b.   Es   ist heute ja doch   ein Brief gekommen   (German)
                 it[7] is   today MOD.PART.[8] a   letter come
                 "There did after all come a letter today"

By contrast, neither Icelandic nor German permit overtly realised expletives in the non-neutral counterparts of these structures. This is shown in (6):

(6)   a.   Í gær   rigndi (*það)
                 yesterday rained   it   = "Yesterday it rained"

        b.   Heute kam (*es) ja doch   ein Brief
                 today came   it   MOD.PART. a   letter

Assuming the postverbal position in structures like (6) to be Spec-TP (cf. note 6) and also the validity of the EPP as originally formulated in Chomsky (1981, 1982) – every clause must host a subject in Spec-TP – structures like those in (6) can be taken as evidence that Icelandic and German license *pro*EXPL. Referential subjects located in this position cannot, however, be null, as German (7) shows:

(7)   a.   Er las   das Buch
                 he read the book
                 "He read the book"

        b.   Das Buch las   *(er)
                 the book   read   he

Icelandic and German therefore clearly differ from canonical Romance NSLs not only in respect of the positional considerations determining the availability of null subjects, a property which might be ascribable to the positive setting of a V2 parameter in the former, but not the latter, but also in respect of the type of null subjects that appear to be possible. This latter property cannot straightforwardly be related to a V2 parameter (although cf. Vikner 1995: 57-64 for discussion of earlier approaches to V2 which attempted to do so; cf. also Holmberg & Platzack 1995). Given the much-discussed "richness" of Icelandic agreement morphology – it regularly distinguishes 5 persons just like Romanian, which is an NSL (cf.

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[6] Because Icelandic (like Yiddish) exhibits V2 in both main and embedded clauses, there is some controversy in the literature regarding the structure of Icelandic V2 clauses (cf. Schwartz & Vikner 1996 for an overview of some of the relevant issues). For reasons which will become clear in section 3.3 below, we will assume that Icelandic V2 clauses, just like V2 clauses more generally, are CPs (cf. also Richards & Biberauer 2005). Leaving aside the possibility that CP may in fact be an articulated structure (cf. Rizzi 1997), this entails that the postverbal position in main clauses will be Spec-TP, while the post-complementiser position in declarative embedded clauses will be Spec-CP (cf. Vikner 1995, Schwartz & Vikner 1996 and Biberauer 2003 for further discussion of CP-recursion in V2 languages).

[7] Like Icelandic, Faroese and Yiddish, German employs only a single expletive form in all expletive contexts, namely the neuter pronoun. Literal glosses are given throughout to reflect this fact.

[8] Abbreviations employed in this paper are as follows: MOD.PART. = modal particle; NOM = nominative; DAT = dative; PL = plural; ACC = accusative.

Biberauer & Roberts, forthcoming for references and discussion) – it is also not clear from a morphological perspective why Icelandic at least should not be a full NSL of the canonical Romance type. We return to this issue in section 3.4.3 (cf. also Biberauer & Roberts, forthcoming and Holmberg, forthcoming a).

Turning to the empirical facts distinguishing Icelandic and German as, respectively, Type I and Type II semi NSLs, the crucial data are the following:

(8)   a.   Es schneit heute   (German)
            it   snows   today
            "It is snowing today"

      b.   Heute schneit *(es)
           today snows   it
           "Today it is snowing"

As comparison with Icelandic (6a) shows, German differs from Icelandic in consistently requiring an overtly realised "weather" expletive.[9] Expletives of this type have been convincingly shown to be quasi-argumental (i.e. non-referential, but nevertheless θ-role-bearing; cf. i.a. Bennis 1986, Cardinaletti 1990 and Vikner 1995: chapter 5 for discussion, and see Bolinger 1977 for insightful discussion of the range of contexts in which these elements surface); therefore it would appear that the difference between Icelandic and German is that the former licenses pro_{EXPL+A} while the latter does not.

Turning to referential subject distribution, we seem to see further evidence that both languages license pro_{EXPL-A}: on the assumption that (non-argumental) expletives serve to satisfy the EPP wherever subjects fail to raise to Spec-TP, the unraised subjects in Icelandic and German structures such as the following can be understood as elements in an expletive-associate chain in the manner illustrated below:

(9)   a.   Í gær   voru pro_{EXPL-A} konunginum   gefnir hestar   (Icelandic)
           yesterday were-3PL   king-the-DAT   given horses-NOM
           "Yesterday horses were given to the king"   (cf. Sigurðsson 1989)

      b.   Í eldhúsinu   hefur pro_{EXPL-A} alltaf verið svartur köttur
           in kitchen-the has   always been black   cat
           "In the kitchen, there has always been a black cat"   (cf. Thráinsson 2007: 319)

(10) a.   … daß pro_{EXPL-A} dem   Mann das   Buch   geschenkt wurde (German)
                that   the-DAT man the-NOM book   presented became
           "… that the book was given to the man (as a present)"

      b.   …weil pro_{EXPL-A} ja doch   Linguisten Kammermusik spielen
           because   MOD.PART linguists   chamber-music play
           "… since there are linguists playing chamber music"   (cf. Diesing 1992: 36)

To summarise, then, Icelandic and German appear to exhibit the same behaviour in respect of their ability to license pro_{EXPL-A}, whereas the ability to license pro_{EXPL+A} is limited to Icelandic. As noted above, this difference was ascribed to inflectional differences between the two languages, Icelandic (5 regular person and number distinctions in verbal paradigms) arguably being inflectionally richer than German (4 regular distinctions). The positional

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[9] Mohr (2005: 178) notes that some speakers of Icelandic do permit það to surface in Spec-TP in "weather" contexts. If this usage is consistent, the grammar of the relevant speakers is identical to that of standard German speakers in the relevant respect. We return to the question of optionality in section 3.2 below.

restrictions on the licensing of *pro* in these languages was, in turn, related to their V2 status via a range of proposals in terms of which C's association with features located on I in other languages, crucially including the Romance NSLs, entailed that C alone was a suitable licenser for *pro*. In V2 languages, then, *pro* could only be licensed in Spec-TP, with the types of *pro* a language permitted being determined by its inflectional properties.

In the following section, we review certain theoretical considerations which have arisen since the original postulation of the two types of semi NSLs discussed in this section.

2.2   Theoretical developments

As noted in the introduction, at least two developments during the minimalist era would seem to justify a reconsideration of the postulation of *pro*$_{EXPL}$ and the class of semi NSLs. The first of these relates to minimalist analyses of canonical and partial NSLs, and the second to the theory of phrasal projection and EPP-driven movement. Crucial to both developments is Chomsky's (1995) recasting of the original EPP, which will therefore be our point of departure here.

2.2.1   *Null subjects in Minimalism*

Since Chomsky (1995), an influential view of the EPP has been that it can be decomposed into two T-related components, namely a nominal feature (D, φ, etc.) and an associated movement trigger ([+strong] in earlier approaches; an EPP-feature or Agree-related movement diacritic in more recent ones – cf. Chomsky 2000 and following). As Roberts & Holmberg (forthcoming a) note, the two major minimalist approaches to null subjects analyse these as being the consequence either of:

  (a) agreement inflection being "pronominal" (i.e. a D-category), with what we might think of as V$_D$-to-T movement thus being able to satisfy both components of T's EPP-requirements in the relevant languages (cf. Borer's original 1986 "I-subjects" intuition, and Barbosa and A&A's more recent developments of this idea); or

  (b) pronouns being deletable under adjacency with T in these languages (cf. Holmberg 2005, Holmberg, forthcoming a, Roberts, forthcoming a,b, Sheehan, forthcoming).[10]

Under (a)-type analyses, the obligatory projection of a TP-specifier no longer follows, with EPP-satisfaction being achieved via V(v)-to-T movement (henceforth: V-to-T), and specifier projection in principle depending on the presence of a further (possibly "free-standing") movement trigger (cf. Biberauer & Roberts, fortchoming, and Holmberg, forthcoming a for discussion of this type of movement diacritic).[11] A&A (1998: 513ff) explicitly highlight the fact that a specifierless approach to EPP-satisfaction in NSLs is advantageous in at least one context traditionally assumed to involve *pro*$_{EXPL-A}$ –type null subjects. Consider (11) in this connection:

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[10] According to Neeleman & Szendröi (2007, 2008), null subjects in so-called "discourse pro-drop" or "radical pro-drop" languages like Chinese and Japanese may also be viewed as ordinary pronouns which are deleted at PF. On their view, the difference between canonical NSLs and the more permissive discourse type is simply that the former necessarily entails a context-sensitive deletion operation which references the (nominal) properties of T, whereas the latter applies independently of the properties of T.

[11] Operating with a theory that predates the postulation of "free-standing" movement triggers, A&A do not consider the possibility that Spec-TP might nevertheless be projected in languages that achieve EPP-satisfaction via V-to-T raising. For them, preverbal subjects therefore necessarily occupy a projection in the CP-domain, i.e. the type of position that is generally assumed to be an A'-position. See Sheehan (2006, forthcoming) for discussion of this position.

(11) a.   There remains a problem/*the problem/*every problem
      b.   *pro*$_{EXPL-A}$ irthe   kapios fititis/   o Petros/ to kathe pedi   (Greek)
                      arrived some   students/the Petros/the every child
                 "Some students/Petros/every child arrived"

As (11b) clearly shows, the putative null expletive – clearly some form of *pro*$_{EXPL-A}$; see below – in NSLs seems to exhibit rather different properties to what appears to be its overt counterpart in non-NSLs. It does not, for example, appear to be sensitive to the Definiteness Effects found with *there*-type expletives in Germanic. Of itself, this may not be an argument against the postulation of a null expletive in structures of this type as overt expletives lacking sensitivity to Definiteness Effects are attested – consider i.a. Vallader *i* discussed by Taraldsen (2002), the Arabic clitic *–hu* cited in A&A (1998), and German *es* as discussed in i.a. Haider (1993) and Mohr (2005). To summarise, then, one type of minimalist approach to NSLs, the "I-subjects" approach outlined (a) above, raises questions as to whether or not it is necessary to postulate *pro*$_{EXPL}$ in canonical NSLs and, if it is, what accounts for its presence (the EPP already having been satisfied via verb-raising) and also what kind of overt expletive(s) it might correspond to.

        The last of these questions is also crucial in the context of the second major minimalist approach to NSLs, the deletion approach described in (b) above. This approach view all *pro*s and therefore also all *pro*$_{EXPL}$s as the phonologically null counterparts of elements that could potentially be overtly realized. Recall that the deletion approach to null subjects entails Spec-TP projection, with the difference between canonical NSLs and non-canonical NSLs being that the feature-composition of T in the former is such that pronouns which have undergone raising to Spec-TP will be deleted at PF: in the former, T is assumed to bear nominal features which, in combination with its verbal specification, ensures that a raised weak pronoun (i.e. φP) will always constitute a featural subset of the features found on T, thus justifying pronoun deletion in accordance with the assumptions more generally made about chains (cf. Roberts, forthcoming a for detailed discussion). Crucially, Holmberg (2005) and Roberts (forthcoming, a) postulate a D(efiniteness)-feature as the NSL-defining property of T, raising the question of how non-definite null subjects will ever arise in these languages. Holmberg (forthcoming a) addresses this issue by proposing that the NSL-defining property of T is in fact an unvalued D-feature, [uD]. This feature would then be expected to be compatible with both definite and indefinite subjects, with the deletion of pronominal versions of the former following from the presence of a null topic in the CP-domain, which is absent in structures featuring indefinite subjects (see Holmberg, forthcoming b for more detailed discussion, also of generic subjects, which we leave aside here).[12] In the specific case of expletive subjects, it would seem that [uD] on T can be valued either [+/definite] or [-/indefinite] as T appears to agree with the associate (cf. (11b) above). On the assumption that expletives are always weak pronouns (φPs; cf. also Cardinaletti & Starke 1999: 175 and note 14), with "pure" expletives possibly encoding only [Person] (cf. Chomsky 2000),[13] the

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[12] Evidently, Holmberg's proposal departs from those of researchers who view indefiniteness as the consequence of the **absence** of a D-feature/-projection (cf. i.a. Longobardi 1994 and Lyons 1999). See Cowper & Hall (2008) for recent argumentation from the pronominal domain in favour of the former type of approach.
        Worth noting here in connection with V-to-T approaches to null subjects is that approaches of this type must assume third-person "pronominal" agreement to be underspecified for definiteness/referentiality so as to accommodate non-referential third person subjects, including expletives. To ensure the availability of both referential and non-referential readings, it would then seem that this type of approach, like its deletion counterpart, requires the postulation of a null topic in the relevant referential contexts.
[13] If the proposal that structures featuring known/old information involve null topics is correct, we might view the difference between "impure" (*it*-type) expletives and their referential counterparts in the domain of φP weak pronouns as residing in the presence (referential *it*) vs absence (expletive *it*) of a null topic rather than in any featural difference between the elements themselves (cf. also Ihsane & Puskas 2001 for an in some ways similar

expectation is, then, that they will be consistently deleted, thereby accounting for the absence of overt expletives in canonical NSLs (but see below). The same analysis can be extended to partial NSLs, assuming expletives in these languages are also φPs. To ensure that expletives are overtly realized in non-NSLs, the proposal then has to be that these expletives differ from their covert counterparts in being DPs – specifically, DPs with D valued [-definite] – which will therefore always encode a superset of the features present on non-NSL T.[14] Clearly, then, overt expletives in non-NSLs must differ categorially from their counterparts in canonical and partial NSLs. In semi NSLs, the same is true if C bears φ-features (cf. Chomsky 2008 and also Biberauer & Roberts, forthcoming on feature-sharing between C and T): in this case, overt expletives must be (indefinite) DPs, while null expletives must be φPs so as to qualify as subset-elements relative to T (on the possibility that Icelandic may in fact be "Italian-plus-V2", see sections 3.3 and 3.3.4 below and also Biberauer & Roberts, forthcoming). Leaving aside the desirability of having to postulate a distinction of this type, it is clear that languages permitting both overt and null expletives **in the same structural position** pose a serious problem to deletion analyses of null subjects. As we will see in section 3.3, this is the case in various Germanic varieties, i.e. in systems that have previously been characterized as semi NSLs.

To summarise, then, both of the influential minimalist analyses of null subjects raise questions about the feasibility of postulating *pro_EXPL* that did not arise during the GB era. We turn now to a further complicating factor: the nature of Spec-TP.

2.2.2   Spec-TP in Minimalism

As noted at the start of this section, minimalist analyses of the original EPP commonly decompose it into a D-component and a movement diacritic component. The recognition, particularly within the current, Agree-based approach (cf. Chomsky 2001 and following), that syntactic relations between features associated with functional heads and corresponding features on elements c-commanded by those heads can more generally be thought of as relations which may **additionally** involve a movement-triggering diacritic necessarily forces one to reassess the original EPP. As the operation Agree is independent of the presence or absence of a movement-diacritic – a departure from earlier minimalism where movement was a prerequisite for feature-checking, the precursor of Agree (cf. Chomsky 1995) – we expect parametric variation in respect of the presence vs absence of movement diacritics (often rather confusingly called *EPP-features*; we will use the notation * here). That is, for every functional category (FC), we would in principle expect the options schematised in (12) (*F:__* signals uF, i.e. an unvalued/probing feature):

(12)   a.   X [F: __]   , i.e. X probes for [F] and Agrees with an appropriate Goal
       b.   X [F:__*]   , i.e. X probes for [F], Agrees with an appropriate Goal and then moves the Agreed-with Goal

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idea regarding the locus of specificity – a CP-related property – vis-à-vis definiteness – a nominal-related property).

[14] Alternatively, one could, at least for associate-related expletives, follow Kayne (2008) in proposing that these elements in fact originate along with their associates as part of "big DPs" (cf. also i.a. Szabolsci 1983, 1984, Cecchetto 1999, 2000, Sabel 2000 and Boeckx 2003), with the XP undergoing raising to Spec-TP in fact being the overtly realized expletive along with the trace of its evacuated associate. Thus the structure of *There is a book* would be roughly as given in (i):

(i) [_TP [*there* t_i] *is* [*a book*]_i [*there a book*]]

On this view, then, we would expect associate-related expletives to be spelled out by virtue of their raising to Spec-TP as part of a featurally complex DP. As with remnant movement proposals more generally, something more would need to be said about how PF will be able to correctly identify the copy of the associate that is to be spelled out.

All other things being equal, then, current theory suggests that the original EPP should **not** be universal as it entails that T will **always** have the specification T [D: __*], a state of affairs which does not seem obviously explicable in the principled terms demanded by the guiding hypothesis of the Minimalist Program, the Strong Minimalist Thesis (cf. Chomsky 2008 and following). At most, we would expect an English-style EPP to feature in languages which have opted for the parametric setting T [D: __*]. Taking into account the fact that T is likely to be the locus not only of nominal (D-) features, but also of verbal (V-) features, other possible parametric settings for T might include:

(13)   a.   T [D: __] [V:__*]
       b.   T [D:__*] [V:__*]
       c.   T [D: __] [V: __]

On the assumption that at least some head-movement phenomena reflect syntactic head-movement (cf. Lechner 2006, Matushansky 2006 and Roberts, forthcoming) and that * may target either the head bearing the probed-for feature or some larger category properly containing this feature (i.e. pied-piping), (13) in fact raises further parametric possibilities. Consider Chomsky (2001: 38) in this connection:

(14)   It has always been taken for granted that the strong V-feature [i.e. V* – TB] is satisfied by V-raising to T (French vs English), not VP raising to SPEC-T; and the strong NOMINAL-feature [i.e. D* – TB] by raising of the nominal to Spec-T (EPP), not raising of its head to T. But the theoretical apparatus provides no basis for this choice.

Within the Probe-Goal-Agree system, then, systems of the following kind should all in principle be available:

(15)   a.   T [D: __*] [V: __]   where DP-raising to Spec-TP takes place
       b.   T [D: __*] [V: __]   where D-to-T raising takes place
       c.   T [D: __] [V:__*]   where V-to-T raising takes place
       d.   T [D: __] [V:__*]   where VP-raising to Spec-TP takes place
       e.   T [D:__*] [V:__*]   where DP- and V-to-T raising take place
       f.   T [D:__*] [V:__*]   where V_D-to-T takes place
       g.   T [D:__*] [V:__*]   where D- and VP-raising take place
       h.   T [D: __] [V: __]   where no raising takes place

(15a) represents the familiar English system. To the best of our knowledge, (15b) is unattested[15], but the Celtic languages, possibly excepting Breton (cf. Jouitteau 2005), may include a T of the kind schematised in (15c), while Massam (2000, 2001, 2005) has argued that Niuean confirms Chomsky's speculation that VP-to-Spec-TP raising languages exist. (15e), in turn, is probably the most generally accepted characterisation of Romance systems, although (15f), where V-to-T movement simultaneously satisfies both movement triggers, arguably captures the behaviour of canonical NSLs which operate in the manner adherents of the "I-subjects" view assume (in contrast to deletion theorists, who view the canonical NSLs as (15e)-type systems). Travis (2006) argues that Malagasy is an example of a (15g)-type system. Finally, it is not clear that (15h)-type systems, where nothing ever undergoes movement to T, exist (cf. Baker 2003b for a checking-based proposal as to why this might be so; cf. also Alexiadou & Anagnostopoulou (2002, 2007)'s so-called *Subject in situ*

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[15] On the "pronominal" agreement view of null subjects, D in (15b) could, of course, be the agreement inflection on V, in which case the impossibility of this type of system follows straightforwardly (cf. also Biberauer & Roberts, forthcoming for discussion).

Generalization); on languages in which T may **sometimes** lack * (i.e. in which T is only optionally associated with a movement trigger), see section 3.4 below.

If the above-mentioned analyses are on the right track, it would seem that the theoretical possibilities opened up by the Probe-Goal-Agree system may in fact be empirically attested, thereby vindicating the notion that the original EPP is but one of a range of options available to language systems. As Davies & Dubinsky (2001) have proposed, languages may in fact differ in terms of their "orientation", with English-style languages and those prioritising nominal-raising being **D-oriented**, while those, like the V-initial languages and possibly also Slavic, which prioritise V-/predicate-raising might be thought of as **V-oriented**. Additionally, it seems that various "size" options are available to them, with the precise factors underlying the choices that languages make currently only very poorly understood. Logically, one would expect the feature composition of a language's various FCs to play some role – if v lacks a V-movement trigger, we might, for example, not, on standard assumptions about phase theory (cf. Chomsky 2001 and following), expect subsequent V-movement to T to be possible. The feature composition of the lexical items serving as Goals is similarly likely to be relevant – if φ-features are spread across nominal categories, with determiners, for example, only encoding a subset of the features probed by a φ-complete T, we might expect full DPs rather than just D-heads to undergo raising to T.

For our purposes, the crucial point here is, however, that the theoretical possibility that grammars may opt for T-specifications which do not require DP-raising to Spec-TP also leads us to expect that languages may not all be equally in need of expletive elements. The observation that overt expletives are in fact crosslinguistically rare has often been made (cf. i.a. Freeze 2001: 944, Svenonius 2002a: 8, Newmeyer 2005b: 204). For adherents of the original EPP, this necessarily means that the majority of the world's languages have null expletives. Given the theoretical ideas outlined above, the possibility, however, arises that at least some languages lacking overt expletives may lack these completely. We will argue below that this is indeed the case. Furthermore, we will show that languages that have been said to feature both overt and null expletives, including the canonical semi NSLs introduced in section 2.1, are likewise best analysed as lacking null expletives.

3   RECONSIDERING SPEC-TP IN GERMANIC

In light of the theoretical developments outlined in the previous section, this section focuses on the nature of Spec-TP in the Germanic languages, and specifically on the question of whether it is justified to view Spec-TP in these languages as a position exclusively reserved for subjects. Obviously, this is the assumption which crucially underlies the postulation of pro_{EXPL} for Icelandic and German and also for Dutch (cf. i.a. Bennis 1986, Cardinaletti 1990 and Vikner 1995 for discussion of Dutch as a semi NSL). Sections 3.1 and 3.2 consider data which, we argue in section 3.3, point to the Germanic varieties being D-oriented, but varying in respect of the manner in which this D-orientation expresses itself. Section 3.3 presents an analysis of the Germanic data which draws on and develops that proposed in Richards & Biberauer (2005) and Biberauer & Richards (2006). In terms of this analysis, Spec-TP in certain Germanic languages is not uniquely reserved for subjects, raising questions about the need to postulate pro_{EXPL} for these languages. Section 3.4 specifically reconsiders the canonical semi NSLs, Icelandic and German and also Dutch, and section 3.5 concludes.

3.1   Empirical facts

This section aims to investigate the plausibility of maintaining the long-held view that Spec-TP in the Germanic languages (specifically, English, Icelandic, Faroese, the Mainland Scandinavian languages [Norwegian, Swedish and Danish], Yiddish, German, Dutch and

Afrikaans) is specially designated for subjects.[16] Given that English has been extensively argued to feature a position of this type and that this language's behaviour is the reference point for the original EPP, we will take for granted that Spec-TP in English is accurately characterised as one systematically requiring DP-raising to it (see section 3.3. below on expletive insertion).[17] To determine the status of the remaining Germanic languages, we will here focus in particular on two properties that have been argued to signal the presence of a canonical subject position, namely subject-raising and expletive insertion (cf. Davies & Dubinsky 2001 for discussion of properties signalling D-orientation more generally). As Biberauer (2004) considers the relevant facts in some detail, we will only summarise the main points here.

Of the modern Germanic languages with which we are concerned here, only the Mainland Scandinavian (MSc) languages exhibit English-like Spec-TP properties, consistently requiring passive and unaccusative subjects to raise to Spec-TP (cf. (16)) and overtly realised expletives to appear where an appropriate subject is either absent (as in impersonal passives like (17a)) or unavailable (as in existential or presentational structures like (17b)):

(16) a.   *… at pro_{EXPL} blev   spist et æble   (Danish)
                     that   became eaten an apple

        b.   … at   et æble blev   spist
                     that an apple became eaten
               "… that an apple was eaten"

(17) a.   … at *(der) blevet   danset
                     that there became danced
               "… that there was dancing"   (cf. Vikner 1995: 209, (93d))

        b.   … at *(der)   er kommet en dreng
                     that there is come   a boy
               "… that there came a boy"   (cf. Vikner 1995: 197, (66e))

These properties underlie the consensus that MSc does not license pro_{EXPL}.

As noted in section 2.1, Icelandic and German do not consistently exhibit the properties one would expect in a language in which DP-raising to Spec-TP is exceptionlessly required. Consequently, these languages were diagnosed as semi NSLs licensing pro_{EXPL} wherever subject-raising apparently fails to take place (cf. (6), (8), (9-10) above). At least one well-known Icelandic phenomenon, however, casts doubt on the validity of the assumption that Spec-TP is uniquely subject-related: stylistic fronting (SF). Consider the examples in (18):

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[16] Given the uncertainty surrounding the synchronic description of Faroese (cf. i.a. Thráinsson 2003, Heycock & Sorace 2007), we will only consider it in passing. For similar reasons, we leave the nature of Yiddish Spec-TP to future research (cf. Mohr 2005 for recent discussion of the complications surrounding Yiddish subject- and expletive-distribution).

[17] We leave aside here the matter of locative inversion, which has sometimes been said to involve a null expletive (cf. Postal 1977 and following). Worth noting, however, is the fact that locative inversion structures are stylistically highly marked, being most natural in narrative contexts. As such, they may in fact be retained relics of an earlier grammar. Leaving aside the specifics of how such structures are synchronically derived, we observe that something similar may be true for the PP-initial structures that appear to license null expletives in Swedish (cf. Falk 1993a: 167ff and Rosengren 2002: 157 for illustration): like English locative inversions, these have a distinctive "ring", being reserved for specific registers (Sten Vikner, p.c.).

(18) a.　　Það　hefur ___veрið tekin erfið　　ákvörðun
　　　　　　there has　　　been taken difficult decision
　　　　　　"A difficult decision has been taken"

　　　b.　　Það　hefur **tekin** verið erfið　　ákvörðun
　　　　　　there has　taken been　difficult　decision
　　　　　　"A difficult decision has been taken"　　　(cf. Holmberg 2000: 446, (4))

Holmberg's (2000, 2006) account of these structures entails that Spec-TP in (18a) contains the lower copy of clause-initial *það*, while the same position in (18b) is occupied by the fronted participle (*tekin*). In the case of subject *wh*-interrogatives and relative clauses, Holmberg (2000), like Maling (1980/1990), Jónsson (1991) and others before him, actually assumes Spec-TP not just to contain the element that has undergone SF, but also, in the case of the interrogative, the lower copy (trace) of the *wh*-moved subject and, in the case of the relative clause, either a *wh*-trace or an operator (cf. Holmberg 2000: 471ff for discussion). Leaving aside how such "double occupation" is possible and why the complementarity effects observed in other cases involving elements that compete for the same structural position do not come into play,[18] and also the alternative possibility that the SFed element in fact precludes the need for subject-raising (cf. Holmberg, forthcoming a), it is clear that SF jeopardises the notion that Spec-TP in Icelandic is a position exclusively reserved for subjects. If that is so, a question must arise as to whether this language needs null expletives. We pursue these questions in more detail in the following sections.

　　　　Although it is generally classified as a semi NSL, Dutch exhibits properties that distinguish it from its West Germanic semi NSL relative, German. The most striking of these is undoubtedly the fact that there are contexts in Dutch where *pro_EXPL* appears to be in free variation with an overt counterpart, *er* ("there"). Consider (19) in this connection:

(19) a.　　… dat (er)　in dit bordeel een jongen werkt
　　　　　　that there in this brothel a　boy　works
　　　　"… that a (non-specific) boy works in this brothel"
　　　　　　　　　　　　　　　　　　　　　　　(Rosengren 2002: 179, (70))

　　　b.　　… dat (er)　gedanst werd[19]
　　　　　　that there danced becomes
　　　　"… that there was dancing"

Significantly, Afrikaans also optionally permits null expletives in impersonal passives like (19b), but not in presentational structures like (19a) (cf. Haeberli 1999: 13, Richards & Biberauer 2005, Biberauer & Richards 2006). This is shown in (20):

(20) a.　　… dat *(daar) in die dorp 'n　internetkafee is
　　　　　　that　there in the town an internet-café　is
　　　　"… that there is an internet café in town"

　　　b.　　… dat (daar) gesing word
　　　　　　that there　sung　becomes
　　　　"… that there is singing"

---

[18] Late Insertion at PF (paralleling what has previously been suggested for expletives at LF – cf. the so-called *Expletive Replacement Hypothesis*, which we discuss in section 3.4.3) suggests itself as a possibility in the context of a Distributed Morphology (DM) architecture (cf. Halle & Marantz 1993).

[19] It is worth noting that not all dialects of Dutch exhibit this optionality (Marjo van Koppen, p.c.).

That Afrikaans should license a null expletive in any context at all is surprising, given its extreme inflectional poverty[20] (cf. section 1 above), but it is worth noting that impersonal passives in earlier Swedish also permitted null expletives (alongside overt forms) **after** the last vestiges of rich agreement were lost (cf. Falk 1993a for detailed discussion and also Richards & Biberauer 2005 and Biberauer & Richards 2006). We therefore appear to have synchronic and diachronic evidence that the licensing of pro_{EXPL} is not inflectionally determined.

Furthermore, we see that there are systems in which pro_{EXPL} appears to be able to alternate with its overt counterpart without this alternation resulting in an interpretive effect. Strikingly, consideration of earlier forms of all the Germanic languages reveals that all of them seem to have gone through stages in which pro_{EXPL} and its overt counterpart were not in complementary distribution (cf. Falk 1993a,b for Swedish; Abraham 1993 for German; Burridge 1983 and van Gelderen 1993 for Dutch; Breivik 1990, Williams 2000 and Biberauer & Roberts 2005, 2006, 2008 for English; and Richards & Biberauer 2005 for overview discussion). Viewed from a GB perspective, this alternation is problematic in view of the Avoid Pronoun Principle (Chomsky 1981) in terms of which overt pronouns should not be possible where null forms (*pro* or PRO) are available. If pro_{EXPL} is licensed in a given context (here: Spec-TP), we would then expect it to rule out the possibility of overt expletives, counter fact. From the perspective of a minimalist architecture, we would likewise not expect overt and covert counterparts of the same element to alternate freely, unless the lexicons of the systems in question contain duplicate lexical entries, one associated with a phonological form and the other, featurally identical one lacking phonological specification.[21] The problems that arise in the context of a deletion approach to null subjects of the kind discussed in section 2.2.1 above were already mentioned there.

What we see, then, is that while the postulation of pro_{EXPL} may enable us to maintain that the original EPP is always satisfied in languages like German, Dutch and Afrikaans, its postulation comes at a cost since it raises various non-trivial and currently unanswered technical questions. Furthermore, we have also seen that there are Icelandic structures which seem to undermine the assumption that Spec-TP in that language is specifically reserved for subjects. In the following section, we consider word-order variation data from Afrikaans which similarly undermines this assumption for a superficially much more "well behaved" Germanic language.

3.2   Afrikaans word-order variation as a window on the nature of Spec-TP

Biberauer (2003) observes that modern spoken Afrikaans (MSA) permits specific "verb-early" orders to alternate with the prescriptively correct verb-final orders in embedded declaratives (*dat*-clauses), but not others. Consider (21-22) in this connection:

(21)   a.   Ek weet dat sy dikwels Chopin gespeel **het**
            I know that she often   Chopin played has
            "I know that she has often played Chopin"

---

[20] Barring the verb "to be" and lexical "have", no verb form shows any agreement marking, with all verbs being formally identical to the infinitive (cf. Ponelis 1993, Donaldson 1993). Afrikaans – and also earlier Swedish (see main text) – therefore undermine Gilligan's (1987) proposal that the semi NSLs consist of two sub-groups, the so-called *strong agreement* semi NSLs which only license pro_{EXPL} in restricted contexts (German, Icelandic and Dutch were the examples Gilligan cited) and so-called *weak agreement* semi NSLs which are less restrictive (various creoles and Tagalog are cited as cases in point).
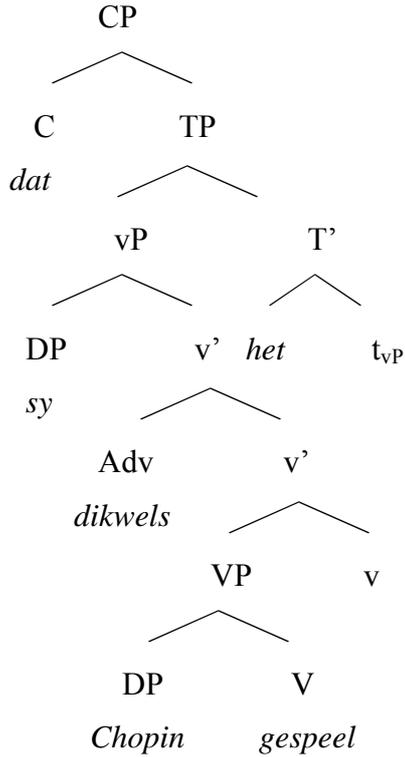
[21] Cf. Adger (2006) for discussion of free variation involving two fully identical lexical items and Kroch (1994) for the proposal that such doublets cannot be stable. For discussion of the very specific circumstances under which PF might license both the spellout and the deletion of a given feature-bundle, see Neeleman & Szendröi (2007, 2008).

       b.   Ek weet dat sy **het** dikwels Chopin gespeel
                 I   know that she has often   Chopin played
                 "I know that she has often played Chopin"

(22)   a.   Ek weet dat sy dikwels Chopin **speel**
                 I   know that she often   Chopin play
                 "I know that she often plays Chopin"

       b.   %Ek weet dat sy **speel** dikwels Chopin
                  I   know that she play often   Chopin

Whereas the superficially V2 structure in (21b) is readily produced by native-speakers and also judged by them to be interpretively identical to the prescriptively correct structure in (21a), the same is not true for the corresponding structures in (22): here (22b) is consistently assigned a matrix-clause interpretation, with speakers viewing the structure as one which one might use if one has forgotten that one was uttering a subordinate clause or if one wanted to assign matrix force to that clause, despite the presence of the subordinator (cf. Holmberg & Platzack 1995: 179ff on so-called *embedded root phenomena* and also Biberauer 2003, 2008b for more detailed discussion of the Afrikaans facts). The crucial point for our purposes is that "verb-early" structures are generally possible as an interpretively identical alternative to verb-final structures wherever (i) the subject follows *dat* and (ii) an auxiliary occupies the second position; where a lexical verb surfaces in (non-trivial) clause-second position (i.e. where the clause consists of more than just a subject and an object), the structure is cannot be interpreted in this way.[22] Various considerations point to many Afrikaans auxiliaries being T-elements, just like their English counterparts (cf. i.a. Roberts 1985, 1993, Lightfoot 1991 and Biberauer & Roberts, forthcoming) and unlike their West Germanic relatives (cf. the thematically-sensitive auxiliary selection that characterises German and Dutch, which is absent in Afrikaans). In view of this fact and taking into account the so-called *Fox-Reinhart intuition on optionality* in terms of which "optional operations can apply only if they have an effect on outcome" (cf. Chomsky 2001: 34), Biberauer (2003) proposes that the MSA variation can be understood as diagrammed below (VP and vP are represented as head-final structures for expository convenience; see Biberauer 2003, 2008b and Biberauer & Roberts 2005 for discussion of a consistently Kaynian analysis of SOV Germanic):

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[22] There are exceptions to this generalisation as lexical verb-second structures followed by a "leaked" constituent may also be interpreted as embedded-clause alternatives to the standardly sanctioned verb-final structure. In these cases, however, it can be shown that the lexical verb occupies a low position despite its "earliness" (see Biberauer 2008b for more detailed discussion). By contrast, the auxiliary-second structures would all seem to involve verbs located in T (see main text).

(23) a. Ek weet dat sy dikwels Chopin gespeel **het** (cf. (21a))

```
              CP
           /      \
          C         TP
         dat      /     \
               vP         T'
             /    \     /    \
           DP      v'  het    t_vP
           sy    /   \
              Adv      v'
            dikwels  /    \
                   VP       v
                 /    \
               DP       V
             Chopin   gespeel
```

b. *Ek weet dat sy **het** dikwels Chopin gespeel*   (cf. (21b))

```
              CP
           /      \
          C         TP
         dat      /     \
                DP        T'
                sy      /    \
                     het      vP
                           /     \
                         t_DP      v'
                                /     \
                              Adv       v'
                            dikwels   /    \
                                    VP       v
                                  /    \
                                DP       V
                              Chopin   gespeel
```
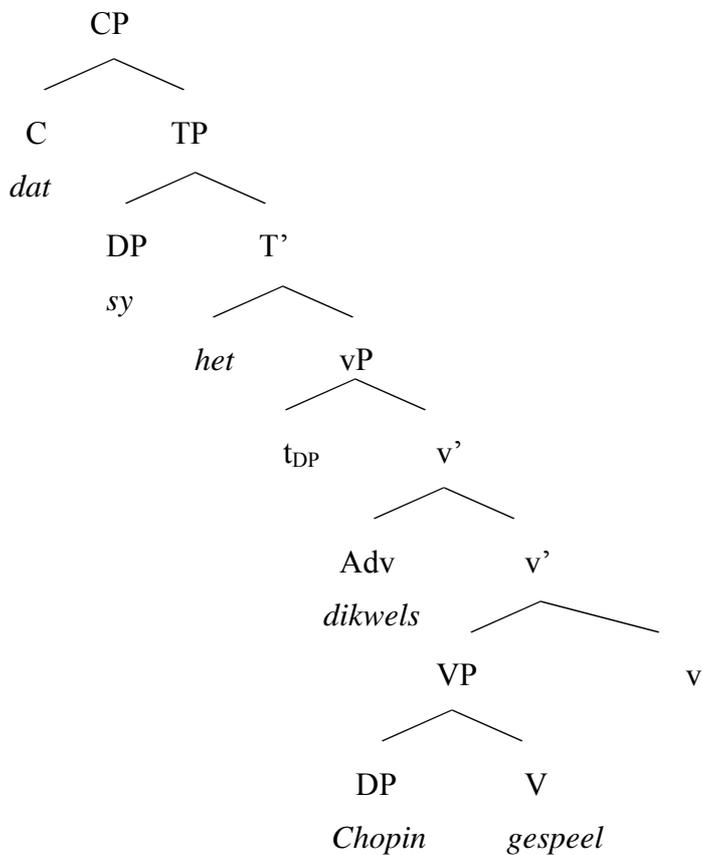
As the trees show, the proposal is that MSA's superficially V2 structures are in fact structures in which the second-position verb is located in T. As lexical verbs do not undergo V-to-T

movement in Afrikaans (cf. Biberauer 2003, 2008b, Vikner 2001, 2005), the impossibility of "verb-early" structures featuring second-position lexical verbs follows: for a lexical verb to surface before the VP adverb and object, as in (22b), it would have to undergo V-to-T raising, an operation which embedded T cannot trigger.[23] By contrast, auxiliaries are either merged in T – plausible for *het* ("have") and possibly also for *wees* ("be") and some modals – or move there – likely to be the case for *word* ("become") and some modals – with the result that we would expect these elements to surface second wherever the derivation involves English-style subject DP-raising to Spec-TP.

Standardly, Afrikaans auxiliaries should, however, be final (non-modal auxiliaries) or pre-final (modal auxiliaries, which consistently trigger Verb Raising – cf. Evers 1975). Given the common nature of the "verb-early"/verb-final alternation illustrated in (21), the fact that it is limited to structures featuring second-position auxiliaries, and the fact that there is no interpretive difference between the structures concerned, Biberauer (2003) proposes that Spec-TP in Afrikaans is not in fact a specially designated subject position, but that instead, it is a position which hosts the entire vP containing the subject. More specifically, the proposal is that Afrikaans T is endowed with the same featural specification as English T – i.e. [D: __*] [V: __] as in (15a) above – but that it differs from English in that T probes the subject DP in Spec-vP, whereafter * then moves not just the Goal (the subject DP), but the entire vP, which properly contains the subject. In other words, the difference between English and Afrikaans is that the latter standardly employs a piedpiping strategy in order to satisfy the * diacritic associated with T's D-probe, whereas English moves just the Agreed-with category. On the assumption that the computational system is only concerned with Agree-mediated movement resulting in the movement of the Agreed-with category (the Goal), we can understand the MSA alternation as following from the more general piedpiping vs stranding alternations that natural language systems appear to permit under the appropriate circumstances.[24] Crucially, then, structures such as those illustrated in (21) are outputs of identical Numerations, with the observed word-order differences following from different choices as to the "size" of the moved category, choices which are immaterial to the computational system which, in this case, cares only that the subject DP should ultimately reach Spec-TP.[25] In the present context, the primary significance of this proposal is that it entails an analysis in terms of which Spec-TP in Afrikaans is not uniquely reserved for subjects, despite the fact that T probes the subject. This obviously raises the possibility that other members of the Germanic family, in particular Afrikaans's West Germanic cousins, may similarly lack an English-style Spec-TP, a possibility to which we now turn.

3.3   Germanic EPP-satisfaction: a typology

Taking into account the Probe-Goal-Agree system's indeterminacy in respect of the precise identity of the elements that undergo Agree-driven movement (cf. (14) above) and building on the insights from Afrikaans, Richards & Biberauer (2005) and Biberauer & Richards (2006)

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[23] Cf. Biberauer & Roberts (forthcoming) for the proposal that T consistently fails to trigger V-to-T movement in V2 languages other than Icelandic and Yiddish.

[24] The fact that this alternation is absent in standard Afrikaans is presumably the result of prescriptive pressure proscribing a structure that the grammar does in fact make available.

[25] Given the interpretive identity of the structures and the fact that all native-speakers appear to employ both variants, we do not consider an alternative proposal that might suggest itself – namely, one involving two "competing grammars" (cf. Kroch 1989). Grammars of this type would seem to us to be best motivated in cases where the variants concerned are associated with specific sociolinguistic values which will signal to speakers that there are in fact two distinct grammars to acquire (cf. Roberts 2006: 330ff for discussion of this "syntactic diglossia" – also mooted in Kroch 2000 – and the proposal that the Brazilian Portuguese situation may be amenable to an analysis along these lines). This is very clearly not the case in Afrikaans, where there has never been a variety featuring **only** English-style subject-raising (i.e. (21b)-type structures).

propose that the Germanic languages in fact exhibit a range of T-related EPP-satisfaction strategies. In particular, they propose the typology in (24):

(24)

| Language	Source of ϕ-features (Goal)	EPP movement
(i) English, MSc	D(P) in Spec-vP	DP-to-Spec-TP
(ii) Greek, Italian (*pro*-drop)	ϕ-features on V-morphology	v-to-T
(iii) German, Icelandic	ϕ-features on V-morphology	vP-to-Spec-TP
(iv) Afrikaans, Dutch	D(P) in Spec-vP	vP-to-Spec-TP

In terms of this typology, languages may differ as to the **source** of the Goal and the **size** of the Goal-containing category that is moved to satisfy T's EPP-feature. Following A&A (1998), it is assumed that the nominal category that agrees with T (the Goal) may be associated with one of two categories: either (a) the ϕ-features of the DP argument in spec-vP, or (b) the ϕ-features of the agreement morpheme on the verbal head in rich-agreement languages ("argumental morphology"/"pronominal agreement" – cf. also Bobaljik & Thráinsson 1998). Without adding to earlier assumptions, it is then clear that we would expect there to be two possible sources for T's Goal. If Agree-driven movement were only able to target Goals, we would then only expect the EPP-satisfaction mechanisms in (24i) and (24ii) above, i.e. the familiar English and null-subject mechanisms. Given the incontestable existence of the currently still rather mysterious operation Piedpipe (cf. Chomsky 2000 and following), it, however, follows that there should also be options regarding the size of the moved category, with the Move-Goal-Only options in (24i-ii) existing alongside two Move-Goal-and-Piedpipe options, namely those in (24iii-iv). In a sense, then, the proposal is that German and Icelandic are "Italian/Greek-plus-piedpipe" (i.e. head-piedpiping languages), their inflectional richness rendering the agreement morphology on V/v an appropriate Goal, whereas inflectionally poorer Afrikaans and Dutch are "English-plus-piedpipe" (i.e. spec-piedpiping languages), with the subject DP serving as the Goal. As Richards & Biberauer (2005) note, the assumption that rich inflectional morphology is a prerequisite for head-piedpiping status makes a strong diachronic prediction: wherever a language's inflectional morphology has undergone impoverishment to the point where acquirers will not postulate that it should be stored in the form of distinct lexical entries, they also will not be able to postulate that the language they are acquiring is a head-piedpiping language. Given the superficial resemblances between head- and spec-piedpipers (compare German vs Dutch or Afrikaans in the OV domain[26]), the prediction is that formerly head-piedpiping languages will be reanalysed as spec-piedpipers once their inflectional morphology has become too impoverished to support a "pronominal agreement" analysis.

In the present context, Richards & Biberauer's proposal has the following entailments and consequences. Firstly, it is assumed that the Germanic and Romance languages are all D-oriented in the sense that T is specified [D: __*]. This seems justified, given that all the languages in question exhibit raising-to-subject phenomena (although they do not all do so consistently – see section 3.4 below; and they also all seem to meet Davies & Dubinsky's more general criteria for D-prominence and also those proposed by Li & Thompson 1976 to hold of 'subject-prominent' languages). Secondly, it leads us to expect that raising-to-subject operations, moving a subject to Spec-TP, may not be equally necessary in all of these languages. We have already discussed this point in relation to the V-to-T raising approach to null subjects (cf. section 2.2.1 above): if this general approach is on the right track, V-to-T

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[26] Richards & Biberauer (2005) and Biberauer & Richards (2006) speculate that Icelandic and Faroese represent another head- vs spec-piedpiping pair, this time in the VO domain. Cf. section 3.4 for further discussion of Icelandic. Biberauer & Roberts (2005, 2006, 2008, in press) further argue that Old and Middle English were spec-piedpiping varieties, which may well have developed from an inflectionally richer head-piedpiping ancestor.

raising will fulfil the role of non-focused pronoun subject-raising, with the consequence that subjects of this type will not feature as part of the Numeration and will therefore also not be available to undergo raising to Spec-TP. Similarly, we would expect the subject-raising patterns in the piedpiping counterpart of V-to-T NSLs to be similar. Insofar as this relates to referential null subjects, this prediction clearly does not hold for Icelandic and German, a point to which we return in section 3.4.3 below. It is, however, worth noting that the proposal that these languages employ vP-fronting to satisfy T's EPP-requirements offers a way of understanding why "low subject" structures like those in (9-10) are possible (cf. also Mohr 2005). As (25) illustrates, fronting of a vP in which the Recipient and Theme arguments have been merged in their unmarked order (cf. Grewendorf 1989, Haider 1993) derives the desired order:[27]

(25)   … daß dem   Mann ein   Buch geschenkt wurde
              … that the-$_{DAT}$ man   a-$_{NOM}$ book presented became
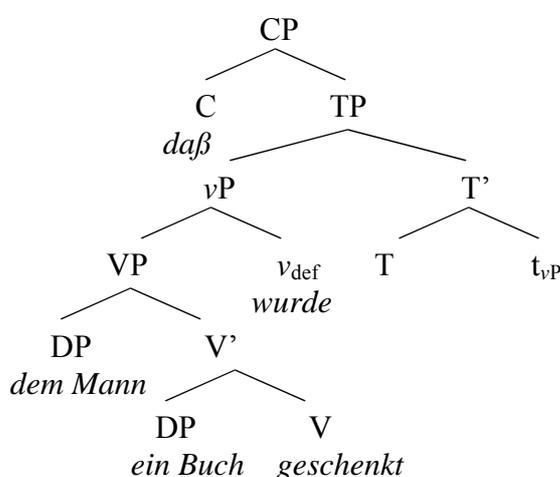
Significantly, vP-fronting does not require us to postulate *pro$_{EXPL}$* in this case; we can simply assume that the passive participle has "absorbed" v's external argument (cf. Baker, Johnson & Roberts 1989), with the result that thematic Spec-vP fails to be projected. As EPP-satisfaction in German is achieved via vP-fronting, there is then no need to postulate expletive insertion into Spec-TP. Since German T probes vP for V$_D$ (i.e. the agreement morphology on the verb), the same is true for the unraised subject-containing structure in (10b): vP-raising will ensure that the V$_D$ goal undergoes movement, thereby satisfying T's EPP-requirements. In terms of the analysis proposed here, the structure for (10b) can therefore be schematised as follows (for expository purposes, we once again gloss over the internal structure of vP):

(26)   [$_{CP}$ …weil   [$_{TP}$ [$_{vP}$ ja doch   Linguisten Kammermusik spielen]]
              because   MOD.PART linguists   chamber-music play

Modulo the fact that Icelandic is a symmetric V2 language (i.e. V is located in C in both main and selected embedded declarative clauses – cf. note 6), the same proposal can be

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[27] Worth noting here is that the neutral interpretation and also the neutral intonation assigned to structures like (25) precludes the feasibility of an analysis in terms of which the indirect object has scrambled over the raised direct object – cf. (i):

(i)   [$_{CP}$ *dass* [$_{TP}$ [$_{DP}$ *dem Mann*]$_i$ [$_{DP}$ *ein Buch*]$_k$ [$_{vP}$ [$_{VP}$ t$_i$ t$_k$ *geschenkt*] *wurde*]
Structures of this type – variably referred to as *focus scrambling* or *A'-scrambling* (Neeleman 1994, Neeleman & van de Koot 2008), *I-topicalization* (Jacobs 1997) *T-scrambling* (Haider & Rosengren 1998), and *S-scrambling* (Hinterhölzl 2005) structures – require a very special intonational pattern, the so-called *hat contour* (fall-rise-fall), which is very evidently absent in the cases under discussion here.

extended to the Icelandic examples in (9). Consider the derivation of (9a) by way of illustration (~~strikethrough~~ here and elsewhere indicates unspelled-out lower copies):

(27) Í gær   voru   konunginum   gefnir hestar   (Icelandic)
      yesterday were-3PL   king-the-DAT   given horses-NOM

```
                        CP
                      /    \
                 Spec       C'
                 Í gær     /   \
                          C      TP
                         voru   /   \
                            Spec     T'
                            /\      /   \
                          vP   T      vP
                              voru    /   \
                                    v      VP
                                   voru   /   \
                                       Spec    V'
                                   konunginum  /  \
                                              V     O
                                            gefnir  hestar
```
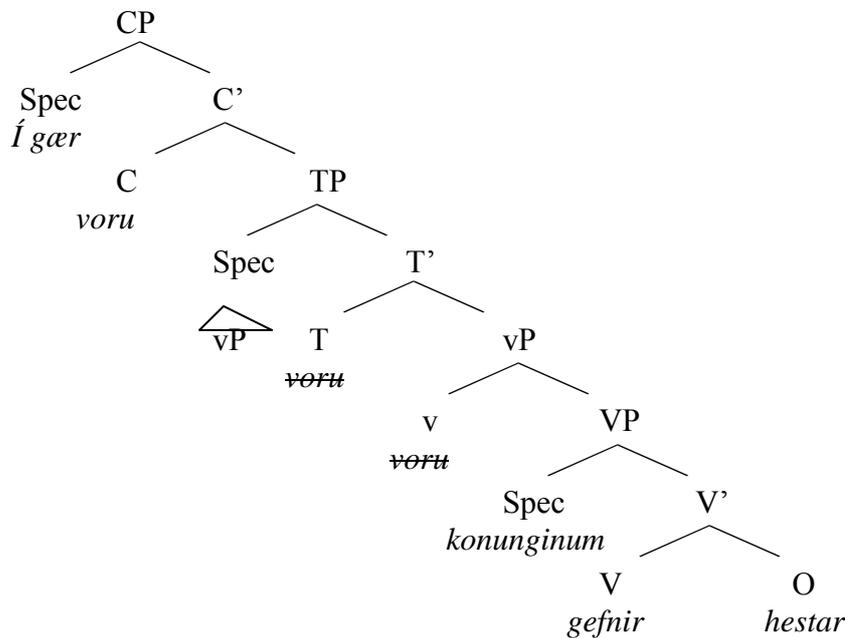
As (27) shows, vP-fronting once again precludes the need to postulate the merger of pro_{EXPL} in Spec-TP. The same is true for (9b), schematised below (clause structure simplified as before):

(28) [CP Í eldhúsinu   hefur [TP [vP alltaf   verið svartur köttur]]
          in kitchen-the has   always been black   cat

A point that deserves some discussion is V-to-T movement. Recall that Icelandic is ascribed the status of a head-piedpiping language in the typology in (24). In the examples in (9), T will therefore be probing the auxiliaries *voru* and *hefur*. If V-to-T movement does indeed take place, as illustrated in (27), the question is why vP-movement would ever take place, i.e. how can a V-to-T movement language be a head-piedpiping vP-raiser? One possibility that suggests itself given the phase-based architecture in which the Probe-Goal-Agree theory is embedded is that V-to-T raising and vP-raising in fact take place simultaneously. Recall that Chomsky (2008) suggests that syntactic operations within a given phasal domain all take place simultaneously upon completion of the phase in question. If this is indeed correct, we would expect T and C to probe simultaneously, with the result that T can probe v for D- and V-features, thereafter raising vP so as to simultaneously satisfy its featural requirements (assumed to be [D:__*], [V:__*]) while C probes v to value its verbal probe and raises it to satisfy its movement diacritic. In terms of this proposal, then, there is no V-to-T movement (cf. also Biberauer & Roberts, forthcoming). A non-trivial question that arises on this view, however, is how PF will be able to establish which copy of v to spell out. Given this problem, an alternative in terms of which movement operations proceed in sequence as each FC is merged (in accordance with something like Pesetsky's 1989 Earliness Principle) and where the finite verb can subsequently be extracted from Spec-TP may be preferable (This would seem to violate the ban on Freezing – cf. Müller 1998, but see Abels's 2008 Universal Constraint on the Order of Operations (UCOOL), which tries to pin down the circumstances

under which moved XPs will not be frozen). Finally, it may be that Icelandic is not in fact a head-piedpiping language, but that it is in fact a head-raiser like the Romance NSLs (the Icelandic = "Italian-plus-V2" view; cf. Biberauer & Richards 2006: note 14 for speculation on this point). Given the problems we have identified here and also the fact that the proposal as it stands does not offer any obvious way of dealing with SF, we will return to the question of Icelandic's status in the typology of T-related EPP-satisfaction in section 3.4.3 below.

Leaving aside the problems we have just discussed, what we have seen so far is that the proposal that German and Icelandic may in fact be vP-fronting languages allows us to do away with the idea that these languages merge a null expletive in Spec-TP. As it stands, we do not yet have an account of the fact that German weather expletives (i.e. pro_{EXPL+A}) may surface clause-internally (cf. (8b) above) while the same is not possible in Icelandic (cf. (6a)). This undoubtedly results from the fact that Icelandic does not, in general, lexicalise impersonal subjects (cf. Sigurðsson 1989, Sigurðsson & Egerland, to appear, and Holmberg, forthcoming a), whereas German does (cf., for example, the use of *man* in generic contexts). As Mohr (2005: 178ff) convincingly argues, *það* cannot be viewed as a genuinely quasi-argumental element, even when it surfaces clause-initially. Among other things, it differs from genuine quasi-arguments in not being able to control PRO (cf. Chomsky 1981: 323ff, Bennis 1986: 99ff and Vikner 1995: 228); as (29b) shows, Icelandic requires a finite embedded clause to express the meaning realised by a weather-predicate-containing control clause in German or English:

(29) a.   Es regnete ohne   PRO zu schneien   (German)
          it rained without   to snow-INF
          "It rained without snowing"

     b.   Það rigndi án   þess að það hafi snjóað   (Icelandic)
          it   rained without it-GEN that it   had   snowed
          "It rained without snowing"   (Mohr 2005: 179, (10a))

On the assumption that quasi-arguments resemble other arguments in being merged within the thematic domain (vP), we can account for *það*'s inability to control PRO by saying that Icelandic lacks a vP-expletive, with *það* consistently behaving like an element which is exclusively associated with the CP-domain, regardless of whether it surfaces in "weather", presentational, existential or SF constructions (cf. i.a. Platzack 1985, Sigurðsson 1989, Holmberg & Platzack 1995, Svenonius 2002a, Mohr 2005, Richards & Biberauer 2005 and Sells 2005, who have previously argued that *það* is a CP-expletive without, however, addressing the question of the implications of this analysis for the original EPP). By contrast, the formally identical expletives surfacing in German "weather", presentational and existential constructions do not all appear to be the same element. (29a) indicates that German has a genuine quasi-argumental expletive, which we would therefore expect to be merged in Spec-vP. If this is the case, we would in turn expect this element to surface clause-internally wherever it undergoes vP-fronting to Spec-TP, but does not subsequently undergo fronting to Spec-CP, the correct expectation (cf. (8b) above). On the analysis presented here, Icelandic and German therefore differ as a consequence of a difference in their lexical inventories: while there is only one expletive in Icelandic, a CP-related "topic expletive", German has two distinct *es*-expletives – the quasi-argument which is merged in Spec-vP and the "topic expletive" which is merged in Spec-CP. Crucially, neither language has an expletive that is merged in Spec-TP (henceforth: *TP-expletive*) as the manner in which T's EPP-requirements are met precludes the need for a lexical item of this type.

Afrikaans and Dutch, likewise, lack TP-expletives. Like German, their lexical inventories include a weather expletive (realised as *het* and *dit* respectively) which is distinct from the expletives found in presentational and impersonal passive structures (realised as *er*

and *daar* respectively) and which is obligatorily merged in Spec-vP wherever the Numeration contains a weather predicate. Unlike German, whose inflectional wealth (cf. note 3) allows it to be a head-piedpiper (i.e. a language in which T probes D-on-V/V_D), both of these inflectionally poorer languages rely on the presence of a subject-element in vP which can serve as the Goal for T's D-oriented probe: an expletive which can be merged within the vP-domain as a "last resort" device for T's D-probe[28]. As we will see here, however, Dutch and Afrikaans are not equally dependent on this "last resort" device. Let us first consider the latter.

   As noted in section 3.1 above, *daar* is obligatory in presentationals and existentials, but optional in impersonal passives (cf. (20)). Given the fact that Afrikaans verbs consistently lack agreement marking of any kind, the obligatoriness of *daar* comes as no surprise if the inflectional basis of the typology in (24) is on the right track: the expectation would be that languages of this type would be rigidly spec-piedpiping, with the Goal for T's D-probe consistently being filled either by an appropriate (non-rhematic) subject DP or by an expletive (cf. also the oft-observed fact that piedpiping structures very commonly require pre-piedpiping movement of the piedpiper to the specifier of the moved category; cf. i.a. Richards 2001 and Horvath 2000, 2006).[29] As shown in the diagrams in (30), which represent simplified derivations at the point at which T is merged, this is precisely what we see in Afrikaans:

(30) a.   … dat daar in die dorp 'n internetkafee is   (= (20a))

      [$_{TP}$ …   T [$_{vP}$ daar [$_{PP}$ in die dorp] [$_{DP}$ 'n internetkafee] is …

   b.   … dat die boek vir die man gegee is   (contrast German (25))
            that the book for the man given is
         "… that the book was given to the man"

         [$_{TP}$ T [$_{vP}$ [$_{DP}$ die boek] [$_{vP}$ [$_{PP}$ vir die man] [$_{DP}$ ~~die boek~~] gegee] is]]

In (30a), *daar*-insertion permits T to locate its Goal in outermost Spec-vP and in (30b), raising-to-subject of the direct object, *die boek*, facilitates the same outcome. Low subject structures like the German counterpart of (30b) are systematically barred in Afrikaans, just as we would expect.

   Against this background, the fact that the language permits impersonal passives lacking *daar* (cf. (20b) above) is surprising: while *daar*-containing impersonal passives operate in exactly the manner schematised in (30) above, it would seem that the *daar*-less counterparts of these structures would require the postulation of *pro*$_{EXPL-A}$ in order to comply with Afrikaans's spec-piedpiping requirement. Biberauer & Richards (2006), however, suggest an alternative solution: once again drawing on the idea that passive participles "absorb" the external arguments in structures in which they occur, thereby rendering themselves suitable nominal Goals for T, they propose that Afrikaans's status as a spec-piedpiping language makes it "backwards compatible" with head-piedpiping in the absence of

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[28] As argued in Richards (2004) and Richards & Biberauer (2005), the simplest implementation of the Probe-Goal-Agree system arguably requires English-type expletives to be merged in Spec-vP rather than in Spec-TP as was initially assumed. Unless probes may probe their specifiers (as Rezac 2003 and Müller 2004b, for example, assume), it could therefore be the case that languages universally lack TP-expletives, with expletives which are spelled out in Spec-TP originating within the vP-domain. For other arguments that expletives are merged in the vP-domain, see i.a. Hoekstra & Mulder (1990), Moro (1997), den Dikken (1995), Basilico (1997), Hale & Keyser (2000), Sabel (2000), Hazout (2004) and Deal (2008).

[29] Horvath (2000, 2006) in fact observes that piedpiping is generally only triggered either by heads or specifiers, which is in line with the proposed typology in (24).

a suitable Goal in Spec-vP.[30] The idea here is that, since the grammar is one which is [+piedpiping] – i.e. one which, unlike its [-piedpiping] counterpart, does not explictly specify the exact category targeted by T's *-feature – T can in fact probe the participle rather than a subject(-related) element located in Spec-vP since the participle would always have been part of the vP that undergoes *-driven movement to Spec-TP. In terms of this analysis, then, the *daar*-less impersonal passives found in Afrikaans do not require the postulation of pro_{EXPL-A} since both the *daar*- and the *daar*-less variants of this structure involve vP-fronting to Spec-TP. This is illustrated in (31) ($_D$ indicates the Goal probed by T):

(31) a. … dat daar gesing word
              that there sung   become
         "… that there was singing"

         [$_{CP}$ dat [$_{TP}$ [$_{vP}$ daar$_D$ gesing word] T [$_{vP}$ ~~daar$_D$ gesing word~~]]]

     b. … dat gesing word
             that sung   become
         "… that there was singing"

         [$_{CP}$ dat [$_{TP}$ [$_{vP}$ gesing$_D$ word] T [$_{vP}$ ~~gesing$_D$ word~~]]]

        Suggestive evidence that the above approach is on the right track comes from Dutch.[31] As is well known, this language permits word-order variation in the context of verbal clusters involving a participle and temporal auxiliary – cf. (32) below:

(32) a. … dat ze een goed werkstuk   afgeleverd heeft   ("green order" = V-AUX)
              that she a   good assignment submitted has
         "… that she has submitted a good assignment"

     b. … dat ze een goed werkstuk   heeft afgeleverd   ("red order" = AUX-V)
              that she a   good assignment has   submitted
         "… that she submitted a good assignment"

Strikingly, both orders are also possible in impersonal passives where expletive *er* is present, whereas only the participle-initial order is available in the absence of *er*:

(33) a. … dat (er)   gedanst wordt   (V-AUX)

              that there danced becomes
         "…that there is dancing"

     b. … dat *(er) wordt   gedanst   (AUX-V)
              that there becomes danced
         "… that there is dancing"

---

[30] "Backwards" here reflects diachronic/chronological considerations since there appear to be a range of cases in which the loss of sufficiently rich inflectionally morphology has led to a change from a head-piedpiping to a spec-piedpiping system (cf. discussion of the strong diachronic prediction mentioned in the main text).

[31] Thanks to Hans Bennis for having originally drawn these data to our attention.

On the analysis proposed in Richards & Biberauer (2005), the above patterns can be explained as follows: *er* is optional in (33a) as Dutch is "backwards compatible" with head-piedpiping, i.e. the participle can serve as the Agreed-with Goal wherever *er* is absent; in (33b), by contrast, the participle necessarily constitutes T's Goal in *er*'s absence, but fails to undergo raising, which is not possible if, as is standardly assumed, Agree-mediated movement always requires movement of the Agreed-with Goal. If we consider a *pro*$_{\text{EXPL-A}}$-based alternative, it is not clear how the facts can be accounted for: if *pro*$_{\text{EXPL-A}}$ is available wherever *er* fails to surface, (33b) should be just as grammatical as (33a). This is shown in (34):

(34) a. … dat *pro*$_{\text{EXPL-A}}$ gedanst wordt

b. … dat *pro*$_{\text{EXPL-A}}$ wordt gedanst

Here, then, we seem to have a clear case where a *pro*$_{\text{EXPL-A}}$-based analysis fails to account for empirical facts that are amenable to explanation via a *pro*-less alternative.[32]

Also worth noting in this connection is that the more general prediction made by the proposed piedpiping-based theory – in terms of which there is some scope for expletive- (and, more generally, subject-) related **optionality** in the context of languages which have undergone/are in the process of undergoing inflectional impoverishment – seems to hold out diachronically. Thus Falk (1993b: 166) makes the observation that "*det* with a purely grammatical function, i.e. it fills the otherwise illicit, empty subject position [Spec-TP – TB]" surfaced for the first time in early modern Swedish (1600 onwards) after the loss of agreement, which she correlates with the loss of V-to-I movement. The crucial point for our purposes is that structures in which Spec-TP does not appear to be filled continued to be possible **after** this period, with expletives only gradually becoming obligatory in all their modern contexts (cf. Falk 1993b: 161, Table 1; cf. also Platzack 1985, 1987). In terms of the proposals outlined here, this optionality is to be expected for as long as Spec-TP in earlier Swedish remained a position not specifically reserved for subject(-related) elements, i.e. one not exclusively requiring subject/spec-raising. As we will see in the following section, there are strong indications that the modern Swedish, English-style canonical subject position did not come into being in Swedish until quite some time after the loss of V-to-I raising. In terms of the standard analysis of semi NSLs, the non-correlation between the loss of sufficiently rich agreement and the loss of null expletives is surprising; in terms of the proposals made here, the dissociation is not unexpected. Biberauer & Roberts (2005, 2006, 2008a,b) show that the same is true for the history of English, where unrealised expletives continued to be possible clause-internally during the Middle English period despite the inflectional impoverishment the language had undergone by this stage (cf. i.a. Allen 1995 and Haeberli 1999/2002 for discussion)[33]. Similarly, synchronic evidence from Faroese (cf. Thráinsson 2003) highlights the non-definitive nature of the correlation between inflectional richness and

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[32] Taking into account the findings of Barbiers (2005), we leave aside the possibility that the (b) orders in (32) and (33) are simply the consequence of a PF operation "flipping" the verb and the auxiliary (cf. Wurmbrand 2004 for a recent suggestion along these lines and references cited therein). If this were the case, neither the account proposed here nor then *pro*-based alternative would of course offer any insight as to the grammaticality differences at issue. Similarly, we leave aside the possibility that expletive insertion may in fact be a PF operation of the sort assumed in Holmberg (2000) and Bobaljik (2002), i.e. an operation inserting material whose features did not play any role in Narrow Syntax.

[33] Cf. also Biberauer & Roberts (forthcoming) for discussion of the status of V-to-T movement in the history of English. As they argue, Old and Middle English are likely to have resembled modern German and the West Germanic languages in lacking V-to-T movement (cf.Vikner 2001, 2005 for convincing argumentation). If this is correct, there certainly cannot be a direct correlation between V-to-T movement and the availability of *pro*$_{\text{EXPL-A,}}$ as is generally argued in the context of parametric accounts inspired by (3, 4).

null expletives: although modern-day Faroese[34] is undeniably inflectionally poorer than Icelandic, whose syntax is generally viewed as the template for earlier Faroese, with V-movement seeming to be at best optional (cf. also Heycock & Sorace 2007), null expletives are undoubtedly still licensed (specifically, in impersonal passives and presentational/existential structures – cf. Thráinsson et al. 2004). We will return to these matters in more detail in the following section. Here we conclude by summarising the main predictions of the proposals made in this section:

(a) languages which employ D-oriented vP-raising to satisfy T's EPP-requirements will not require pro_{EXPL-A} as vP-raising precludes the need for expletive insertion in Spec-TP. The same should clearly be true for V-oriented vP/XP-raising, a point to which we return in section 4;

(b) languages which employ vP-raising may be either inflectionally rich or inflectionally impoverished, with inflectional considerations determining the source of T's D-Goal: either the inflected verb (head-piedpiping) or a subject/expletive D(P) (spec-pipedpiping). Spec-piedpiping languages may exhibit optionality in respect of the presence vs absence of non-argumental expletives owing to their "backwards compatibility" with a grammar in which T can locate an alternative D-bearing Goal.

Several empirical issues, however, remain unresolved and we now turn to these.

3.4   A closer look at Dutch, German and Icelandic

3.4.1   *Dutch*

So far, we have an account of expletive optionality in Dutch and Afrikaans impersonal passives. What is not yet clear is why expletives should also be optional in Dutch, but not Afrikaans presentational/existential structures (cf. (19a) vs (20a/30a) above). Observing that head-piedpiping systems like German do not require an overtly realised expletive in these contexts, we might be tempted to extend the "backwards compatibility" proposal discussed in section 3.3 to this structure. This would, however, miss an important difference between Dutch and Afrikaans that is evident in domains other than presentationals/existentials. Recall that Afrikaans does not permit "low subjects" of the kind found in German (cf. (30b)); Dutch, by contrast, does:[35]

(35) a.   … dat het meisje_{DAT} de ergste   rampen_{NOM} overkwam   (Dutch)
                    that the girl   the most-terrible disasters   happened
              "… that the most terrible disasters happened to the girl"

                                                                                            (cf. Rosengren 2002: 182, (76a))

       b.   … dat die   meisie die verskriklikste rampe   oorgekom het   (Afrikaans)
                    that the girl   the most-terrible disasters happened have
              "… that the most terrible disasters happened to the girl/her"

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[34]As noted in section 3.1, much remains to be learned about the syntax of modern Faroese and its dialects. Worth noting, however, is that recent research (cf. Thráinsson 2003 and references cited therein and also Heycock et al. 2007) suggests that it is too simplistic to distinguish a conservative, Icelandic-like variety from a less conservative, more MSc-like variety, as suggested in Jonas (1996). In terms of this distinction, the correlations between inflectional richness, V-movement, and subject and expletive distribution seem to fall out precisely as (3, 4) would lead one to expect, but the reality seems significantly more complicated.
[35] Like German (25), structures like Dutch (35) cannot be analysed as scrambling structures in which the dative argument has scrambled over a raised subject as the interpretive and intonational properties of "low subject" structures of this type do not correspond to those typically associated with the relevant type of scrambling.

That *die meisie* in (35b) is indeed the nominative subject rather than a dative parallel to Dutch (35a) is clearly shown by the fact that pronominal substitution requires the nominative *sy* ("she") rather than oblique *haar* ("her") – thus: *... dat sy/*haar die verskriklikste rampe oorgekom het*. Strikingly, Dutch exhibits a further similarity to German in respect of its subject distribution, also exhibiting both subject- and object-related "Diesing Effects" (cf. Diesing 1992, Diesing & Jelinek 1995, Broekhuis 2000, de Hoop 1996 and Neeleman & van de Koot 2008):[36]

(36)   a.   ... dat toch   wel veel mensen in grote groepen communiceren
             that MOD.PART.   many people in big   groups communicate
       "… that there are after all many people who communicate in big groups"

       b.   … dat veel   mensen toch wel   in grote groepen communiceren
             that many people MOD.PART. in big   groups communicate
       "… that many people after all communicate in big groups"

In Afrikaans, by contrast, weak/new information "low subject" readings can only be obtained in the presence of an expletive (object behaviour mirrors that in German and Dutch):

(37)   … dat *(daar) tog   baie mense   in groot groepe kommunikeer
             that   there MOD.PART. many people in big   groups communicate
       "…that there are after all many people who communicate in big groups"

An expletive (*er*) is also optionally possible in Dutch structures like (36a), which might lead one to conclude that Dutch is after all less similar to German than we have begun to suggest. In this connection, it is, however, important to note two things. The first of these is that the presence of *er* does not simply seem to guarantee a "low subject" reading for the unraised subject in the way English *there* or Afrikaans *daar* does (cf. Bobaljik 2002); it also seems to add a currently not very well understood situative "here and now/there and then" interpretation (cf. Mohr 2005: 143ff for detailed discussion and references), one that can, in the absence of *er* also be conveyed by the presence of appropriate situative (e.g. locative) adverbials. *Er*, then, seems to be "more than" just an interpretively vacuous element (though see section 3.4.3 on the interpretive significance of English-style expletives). Secondly, spoken German features an element which mirrors the behaviour of Dutch *er* – *da* (cf. Koeneman & Neeleman 2001: 228ff., Rosengren 2002: 175, Mohr 2005: 146ff and Hartmann 2008: chapter 4):

(38)   Es hat da   jemand   einen   Apfel gegessen

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[36] The precise nature of "Diesing effects" has been much disputed in the literature (cf. i.a. Haider & Rosengren 1998, 2003, Frey & Pittner 1998, Frey 2000, Rosengren 2002, Neeleman & van de Koot 2008). What seems fairly clear is that the full range of interpretive effects entails the postulation of a clause-medial scrambling domain (the *Mittelfeld* of traditional descriptions), which we abstract away from for the purposes of this paper (but cf. Haider 2005 for overview discussion). Since it is generally accepted that clause-medial scrambling should be distinguished from focus scrambling (cf. note 27), with the latter, but not the former targeting positions above the canonical subject position, Spec-TP, this seems justified: the interpretively significant "Diesing-type" subject-related scrambling that we are concerned with takes place in a domain that appears to be "closed off" by Spec-TP. Furthermore, the interpretations associated with subjects at the "top" and "bottom" of the potential subject field (cf. Neeleman & van de Koot 2008) seem uncontested – the former must be strong and/or informationally old and the latter must be weak and/or informationally new (cf. Frey 2001). Needless to say, more detailed work is required to establish the precise structure of the *Mittelfeld* and how and if it maps onto the cartography of (T-related) subject positions that has been suggested i.a. by Kiss (1996), Bobaljik & Jonas (1996), and Cardinaletti (2004); for the proposal that particular interpretations are not necessarily associated with particular cartographic positions, but fall out relationally as a result of differently ordered derivational steps, see Neeleman & Weerman (1999), Zwart (2007) and Neeleman & van de Koot (2008).

It has there someone an-ACC apple eaten
"Someone (in that context) at an apple"   (cf. Koeneman & Neeleman 2001: 229)

As (38) shows, *da* may co-occur with *es*, clearly signalling that it is either a vP-expletive co-occurring with German's CP-expletive, non-(quasi)argumental *es* (cf. Richards & Biberauer 2005) or that it is in fact not an expletive element, but instead something different, possibly a discourse-related element belonging to the same general class as the modal particles (cf. Koeneman & Neeleman 2001, Rosengren 2002: 177, Mohr 2005 and Hartmann 2008). Dutch, too, permits peripheral expletives to occur with clause-internal *er*:

(39)   Er   heeft (er)   iemand   een appel gegeten
        there has   there someone an   apple eaten
        "Someone (in that context) has eaten an apple"   (Koeneman & Neeleman 2001: 230)

If clause-internal *er* were in fact a vP-expletive on a par with Afrikaans *daar*, one would not expect this element to be spelled out both clause-internally and peripherally within the same presentational sentence ((40) reflects the vP-fronting analysis proposed in Richards & Biberauer 2005):[37]

(40)   [CP Er heeft [TP [vP ~~er~~ iemand [vP [VP een appel gegeten] ~~heeft~~] ~~heeft~~]]

As (40) shows, standard views on chain reduction would lead us to expect the lower copy of a fronted vP-expletive to be deleted. Crucially, the Afrikaans counterpart of (39) is impossible, with postverbal *daar* in a *daar*-initial structure necessarily receiving a locative adverbial interpretation.[38] As (41) shows, the Afrikaans facts follow straightforwardly on the basis of the assumptions made about this language so far:

(41)   a.   Daar het (*daar)/DAAR iemand 'n appel geëet
                There have there   someone an apple eaten
                "Someone over there ate an apple"
        b.   [CP Daar het [TP [vP ~~daar~~ iemand [vP [VP 'n appel geëet]] ~~het~~]]
        c.   [CP Daar het [TP [vP ~~daar~~ DAAR iemand [vP [VP een appel geëet]] ~~het~~]][39]

Given the above, it would seem that Dutch may in fact be more like German than is generally thought and that this language may lack a non-argumental vP-expletive just as German does. If this is correct, *er*-optionality may simply be a consequence of the optionality of the non-expletive class of adverbial elements to which it belongs, which, in turn, implies that its absence cannot, as has standardly been done, be viewed as evidence in favour of the availability of *pro*EXPL-A in Dutch. Evidently, much more needs to be learned about the precise nature of *da* and *er* (which is famously homophonous – cf. Bennis 1986 and Neeleman & van de Koot 2006 for discussion of Dutch's numerous *er*s; cf. Hartmann 2008: chapter 4 on partially similar problems afflicting syntacticians' understanding of German *da*). What seems clear, however, is that these elements are different from Afrikaans (non-adverbial) *daar* and that our findings regarding the inventory of expletive elements in Germanic accordingly needs to be revised as follows:

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[37] The fact that (39) is interpreted as a presentational on a par with other structures introduced by clause-initial *er* suggests that it is correct to analyse the initial element as a CP-expletive, parallel to German *es* and Icelandic *það*.

[38] Like Dutch *er* and English *there*, Afrikaans *daar* is homophonous with the locative adverbial.

[39] We ignore the possibility that locative *daar* may in fact have been first-merged lower in vP than indicated here as it does not affect our argument.

(42)   Inventory of expletive elements in Germanic

Language	CP-Expl	vP-Expl
Icelandic	*það*	---
German	*es*	quasi-argumental *es*
Dutch	*er*	quasi-argumental *het*
Afrikaans	---	quasi-argumental *dit*; non-argumental *daar*
English	---	quasi-argumental *it*; non-argumental *there*
Mainland Scandinavian	---	quasi-argumental *det*; non-argumental *der*

Based on the discussion in this section, then, we might conclude that Dutch's similarity to German in the relevant respects entails that it should be analysed as a head-piping vP-raising language rather than as a spec-piedpiper, as suggested by Richards & Biberauer (2005). The following section reconsiders the feasibility of postulating a head-piping analysis for German.

3.4.2 German

As noted above, German exhibits "Diesing effects" in both subject and object contexts, with "higher" subjects necessarily receiving an old information/strong interpretation that is not assignable to "low" subjects. In the object domain, this interpretive alternation has been analysed by appealing to the presence vs absence of optional EPP-features (cf. Biberauer & Richards 2006 for discussion and references). Consider (43):

(43)   a.   Er hat oft   ein Buch gelesen
              he has often a   book read
              "He often read a (non-specific) book"   (weak reading; cf. Diesing 1992)

        b.   Er hat ein Buch oft   gelesen
              he has a   book often read
              "There's a book that he often read"   (strong reading; cf. Diesing 1992)

In accordance with the Fox-Reinhart intuition on optionality, in terms of which optional features, operations, etc. must deliver some extra effect that would have been absent in the absence of these features, we can legitimately view (43a) and (43b) as the outputs of two different Numerations: specifically, that which delivers (43b) can be said to feature a movement trigger which is absent in (43a). Following Chomsky (2001: 34ff), Biberauer & Richards propose that the "Diesing Effects" in (43) are the consequence of v's D-probe bearing an optional movement trigger (i.e. being [D*]) in (43b), but not in (43a).

Extending this proposal to German – and Dutch – subject effects, we might most naturally expect the D-probe on T, likewise, only optionally to be associated with *. Rather than being a head-piedpiping language, then, German and Dutch would be languages in which Spec-TP is only optionally occupied by the subject (cf. also Wurmbrand 2006 and Kratzer & Selkirk 2007, who arrive at the same conclusion on the basis of, respectively, LF and PF considerations). Given the lack of evidence for a clause-internal (non-argumental) expletive in these languages (cf. section 3.4.1 above), the fact that there is no position that always needs to be occupied by a subject-element and the fact that both German and Dutch have at least some auxiliaries which are most plausibly merged within the thematic domain (both languages exhibiting auxiliary selection), this would seem to be the simplest hypothesis for German- and Dutch-acquiring children. Consider (44) below:

(44) a.   [$_{CP}$ weil [$_{TP}$ [$_{vP}$ ja doch Linguisten [$_{VP}$ Kammermusik   gespielt] haben]] t$_{vP}$]
    b.   [$_{CP}$ weil   [$_{TP}$ [$_{vP}$ ja doch Linguisten [$_{VP}$ Kammermusik   gespielt] haben]]]

As (44) clearly shows, the input motivation for postulating vP-raising in languages with v-auxiliaries is not the same as that for languages like Afrikaans in which, lack of auxiliary selection aside, alternations such as those discussed in section 3.2 signal the plausibility of postulating a system in which vP-raising alternates with English-style DP-raising. This is shown in (45):

(45) a.   [$_{CP}$ dat [$_{TP}$ [$_{vP}$ sy dikwels [$_{VP}$ Chopin gespeel] v] het] t$_{vP}$]
    b.   [$_{CP}$ dat [$_{TP}$ [$_{DP}$ sy] het] [$_{vP}$ t$_{sy}$ dikwels [$_{VP}$ Chopin gespeel] v]]

Given the above, we therefore conclude that Afrikaans on the one hand and German and Dutch on the other are, in fact, quite different systems where their T-related EPP-satisfaction mechanisms are concerned. Having questioned the status of German, we now reconsider Icelandic.

3.4.3 Icelandic

At least three empirical facts point to the possibility that Icelandic may in fact resemble German and Dutch in having an optional EPP-requirement on T: the interpretive effects associated with different subject positions in this language (cf. i.a. Bobaljik & Jonas 1996, Bobaljik & Thráinsson 1998, Sigurðsson 2000, Vangsnes 2002, Rosengren 2002, and see Thráinsson 2007 for overview discussion); the option of not realising generic/impersonal subjects (cf. Holmberg, forthcoming a); and SF. Let us consider these in turn.

    The following example (adapted from Jonas 1996: 63) illustrates the fact that occupation of the Icelandic subject-position is, among other things, closely connected to information-structural considerations:

(46)   Við settum færeyskar bækur fyrir málstofuna í lestrarsalinn …
        we put   Faroese books for seminar-the in reading-room-the
        "We put Faroese books for the seminar in the reading room …"

      (i)   … en það hafa **margar af þessum bókum** verið lesnar áður
            … but there have many   of these   books   been read   before
            "… but many of these books have been read before"

      (ii)   %… en það hafa ___verið lesnar **margar af þessum bókum** áður
               but there have   been read many   of these   books before

      (iii)   %… en   það höfðu **íslenskar bækur** verið lesnar í fyrra
              but there had   Icelandic books been read last year

      (iv)   … en það höfðu ___ verið lesnar **íslenskar bækur** í fyrra
            … but there had   been read   Icelandic books last year
            "… but Icelandic books had been read last year"

As the continuations indicate, Icelandic subjects can occupy "lower" and "higher" positions, with old information *margar af þessum bókum*, referring back to the Faroese books previously mentioned in the scene-setting phrase, having to occupy the higher immediately postverbal position (i.e. Spec-TP) – hence the infelicity of (46ii) in this context – and new information *íslenskar bækur* necessarily occupying the lower position, as shown in (46iv). As the well-formedness of structures like (46iv) shows, Icelandic Spec-TP need not be (overtly) filled. Taken in isolation, one might be tempted to propose first-merge of *það* in Spec-TP in structures of this type (assuming TP-expletives to exist – cf. note 28), but this proposal seems implausible if one further considers the fact that Spec-TP may likewise lack overt content in the context of impersonal and *yes/no* interrogative structures. Consider (47) in this connection:

(47) a.   Nú   má (maður) fara að   dansa
              now may one   go to   dance
              "One may begin to dance now"

      b.   Hafa (*það) komið margir stúdentar?
              have   there come many students
              "Have many students come?"

(47b) is particularly telling since this structure clearly features a "low" subject (*margir stúdentar* may, in fact, be located in its first-merge position as the complement of unaccusative *komið*), and its unmarked declarative counterpart (*Það hafa komið margir stúdentar*) obligatorily requires the expletive that is barred in (47b). Given these facts, then, it seems justified to propose that Icelandic Spec-TP resembles its German and Dutch counterparts in not necessarily having to be projected (cf. also Wurmbrand 2006 for further arguments in favour of this conclusion).

There does, however, appear to be an important difference between Icelandic on the one hand and German and Dutch on the other. While the non-obligatory projection of Spec-TP can account for the interpretive effects illustrated in (46) and can also, in view of Icelandic's more general tendency not to lexicalise arguments of very general or indeterminate reference[40], account for the non-obligatory presence of overtly realised impersonal subjects, it cannot account for its SF structures. Consider (18) above and also the subject *wh*-interrogative in (48):

(48)   a.   Hver heldur þú að **stolið** hafi hjólinu?
              who think you that stolen has bike-the
              "Who do you think has stolen the bike?"

      b.   Hver heldur þú að ____ hafi **stolið** hjólinu?

SFed elements are generally thought to involve movement to Spec-TP (cf. Holmberg 2001, 2006; *pace* Jónsson 1991 and Hrafnbjargarson 2004a,b), in which case Spec-TP in (48a) must be filled (at least) by *stolið*, while the corresponding position in (48b) is either unoccupied or occupied by the lower copy of the subject or a subject operator. Regardless of Spec-TP's contents in (48b), however, (48a) – and, likewise, (18b) – constitutes a problem for the optional subject-raising analysis of Icelandic: [D*] on T would be expected to target only Agreed-with subjects, and not the range of elements that can potentially undergo SF (cf. Maling 1980/1990 and Holmberg 2006). We therefore propose that Icelandic T in fact differs from German and Dutch T in bearing an optional free-standing (i.e. non-Agree-related)

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[40] Cf. the discussion of the "weather" expletive in section 3.3, and see also Bolinger (1977).

movement diacritic (cf. also Holmberg, forthcoming a). Like free-standing movement triggers more generally (cf. Chomsky 2008 on 'edge features'), this * on T "blindly" targets the highest specifier of T's complement (vP), thus raising the subject wherever this occupies this highest Spec-vP – with the result that the subject in question will be interpreted as old information (cf. the discussion of (46) above) – and raising a higher-merged adverb (e.g. sentential adverbs)[41] or a fronted element originating lower within the vP-domain wherever one of these occupies outermost Spec-vP. In the absence of *, no raising takes place, with the result that Spec-TP remains unprojected.[42]

The proposal that Icelandic T bears an optional free-standing * has various positive consequences. Firstly, it enables us to understand why this language has no need for TP-expletives (strictly speaking, vP-expletives – cf. section 3.4.1 above). Let us firstly consider the role of expletives that are ultimately spelled out in what would otherwise be the canonical subject position (thus **not** CP-expletives of the type found in Icelandic, German and Dutch). As Bobaljik (2002) shows, there is a very important difference between structures like (49a) and (49b):

(49)   a.   Someone must be (someone) in the garden
                must >> someone
                someone >> must

        b.   There must be someone in the garden
                must >> someone
                *someone >> must

As (49a) shows, the expletive-less construction is ambiguous, with "A-reconstruction" being possible: in Bobaljik's terms, either the higher or the lower copy of *someone* may be privileged by LF for interpretation in this case. In (49b), by contrast, this choice is unavailable: only the lower copy may be interpreted. Because of the expletive facts discussed in earlier sections, we reject Bobaljik's specific interpretation of these "right corner effects" as indicative of PF expletive insertion, our focus, instead, being the interpretive effects at issue. The view that expletives are semantically vacuous is widespread (cf. Chomsky 1986 on the Expletive Replacement Hypothesis), but this view is undermined by the systematic interpretive differences between (49a) and (49b)-type structures: wherever an expletive is present, only a single interpretive possibility arises, with DPs necessarily taking narrow scope

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[41] This proposal clearly requires one to assume that sentential adverbs, including those which are often thought to be merged within the TP- and CP-domains (cf. Alexiadou 1997, Cinque 1999), are merged at the edge of vP. While this may seem undesirable, it is worth noting that analyses of SF generally would seem to have to make this assumption as the proposal is consistently that adverbials occupying Spec-TP in SF structures – or adjoined to T, in the case of T-adjunction proposals – have undergone raising from the lower position that they occupy in the corresponding non-SF structures. Thus (ignoring the first-merge position of the subject and the question whether relative clauses are raising or operator structures):
(i)   sá [CP sem [TP ____ hefur [vP sennilega skrifað þessa bók]]]
           he   that   has   probably written this book
(ii)   sá [CP sem [TP sennilega hefur [vP ~~sennilega~~ skrifað þessa bók]]]
Müller's (2004a) vP-fronting analysis of V2 similarly requires him to assume that all adverbials are merged vP-internally, as does Biberauer's (2003) vP-fronting analysis of Afrikaans.
[42] This proposal raises a question about the lack of obligatory interpretive effects associated with SF: since SF entails the presence of the optional * on T, whereas its absence correspondingly signals the absence of *, the Fox-Reinhart approach to optionality would lead us to expect an obligatory interpretive effect. The analysis proposed here and also in Holmberg (forthcoming a) therefore only readily accounts for cases of SF that involve some "extra" meaning (cf. Hrafnbjargarson 2004a,b and Mathieu 2006 for discussion). We leave this matter aside for future research.

wherever scope questions arise.[43] Overt expletives located in Spec-TP, then, are not semantically vacuous as their presence in a structure precludes an otherwise available interpretive reconstruction possibility. To the extent that deleted expletive pronouns (i.e. *pro*_EXPL-A) in canonical NSLs consistently ensure the same interpretive effects, they are, then, equally well motivated. This is precisely the argument made in Sheehan (2006, forthcoming) for a range of Romance NSLs, all of which can be shown to have obligatory D* on T.[44] If we consider languages which lack this obligatory D*, however, it is not at all clear that the postulation of *pro*_EXPL-A is motivated. Unlike in obligatory D* languages, there is no imperative to raise subjects to Spec-TP in these languages, with the consequence that the interpretive effects that are facilitated by expletives can be achieved simply by the presence vs absence of * on T, whether this is associated with D, as in German and Dutch, or not, as in Icelandic.

A second positive consequence of the proposal that Icelandic T bears an optional free-standing * is that it allows us to understand why this language lacks *that*-trace effects (cf. Lohndal 2007 for recent discussion and references): wherever T lacks *, subject-raising is predicted not to occur, with the consequence that the subject in question can be extracted from a lower position (cf. Rizzi 1982, 1986, and also Rizzi & Shlonsky 2006).[45] Furthermore, wherever * is present and SF satisfies this movement imperative, we also expect *that*-trace effects to be absent. This is correct, as (48a) illustrates.

A further advantage of the optional free-standing * is that it opens up the possibility of understanding why Icelandic is in fact not a canonical NSL. On the assumption that this language is indeed "Italian-plus-V2" (cf. sections 2.2.1 and 3.3 above), we would expect T's feature specification to be as follows: [D*], [V*] (*). V-to-T raising, then, simultaneously satisfies both T's V- and D-related movement requirements, just as, on the "I-subject" approach, it does in canonical NSLs (cf. Biberauer & Roberts, forthcoming for discussion). Icelandic T, however, optionally bears an extra movement diacritic which will target the subject wherever no other element is present at the vP-edge, with information-structural consequences for the interpretation of raised subjects. On the "I-subject" approach, then, the difference between Icelandic and the canonical NSLs is that subject-raising in the former is the consequence of an optional, free-standing * on T, whereas in the latter, this movement is the consequence of an optional, free-standing * on a head within the C-domain (cf. A&A on the A'-nature of initial subjects in canonical NSLs and see Sheehan, forthcoming for discussion). On the deletion approach, in turn, the difference between the two languages lies in the fact that T in canonical NSLs features an obligatory D-related * (cf. Roberts, forthcoming a and Sheehan, forthcoming). Regardless of which analysis of canonical NSLs turns out to be correct, then, Icelandic will, on the account proposed here, differ from these languages in having a T associated with an optional free-standing *. If we now make the not unreasonable assumption that the difference between an Agree-related and free-standing * is

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[43] As has frequently been observed, the non-equivalence of sentences such as the following (cf. Milsark 1974) also strongly undermines the Expletive Replacement Hypothesis:
  (i)   There were not many people in the room
  (ii)   Many people were not in the room.
[44] The lack-of-interface-properties argument that is often used as an argument against the postulation of *pro*_EXPL-A can therefore be cast aside as irrelevant.
[45] The same is, of course, predicted to be possible in German and Dutch wherever T's D-probe lacks its optional *. The empirical facts for these languages are not entirely clear at this stage (although cf. den Dikken 2007 for a recent investigation of the Dutch facts, Haegeman 1992 on West Flemish, and Bayer 1984 and Mayr 2009 for discussion of Bavarian German), but it does seem that varieties which permit extraction from finite complements more generally also permit (superficial) *that*-trace violations under circumstances that are sensitive to discourse-linking considerations. We leave this matter to future research.

legible to PF[46] and, furthermore, that free-standing * on T differs from free-standing * on C in categorically disallowing post-Spellout deletion, we have an account of why Icelandic pronominal subjects must always be overtly realised in Icelandic, but not in the canonical NSLs: pronouns moved by Agree-mediated * may, under appropriate circumstances, be deleted (see Roberts, forthcoming a, Sheehan, forthcoming and Holmberg, forthcoming a for discussion);[47] those moved by free-standing *, by contrast, may not. An "architectural" consideration comes to mind as a possible reason as to why free-standing * on T may behave differently to a corresponding * on C: if one adopts the stricter version of the PIC originally proposed in Chomsky (2001) (cf. i.a. Müller 2004c, Svenonius 2004 and Richards 2004, 2007 for discussion), there is a question about how material located in root C and its edge comes to be spelled out. Various researchers, including Fitzpatrick (2006), Rizzi (2006), Haegeman (2006) and Sigurðsson & Maling (2008) have proposed that material in this "final edge" may, but need not, be subject to deletion operations that cannot apply to non-final edges – in Fitzpatrick's terms, material in final edges may, uniquely, remain "uninterpreted" by PF. As this option will not be available to material moved to Spec-TP, we predict that such material will always, in the absence of a Romance-style, context-sensitive deletion possibility, be spelled out.

3.4.4   Summary and some diachronic speculations

In the preceding sections, we have argued that the Germanic languages cannot all be viewed as systems in which Spec-TP is a specially dedicated subject position; they in fact vary in respect of their degree of subject-prominence. Specifically, the proposal is that only English MSc and, on the deletion analysis, canonical NSLs have a canonical subject position in the sense of the original EPP, i.e. a position which must always be occupied either by a subject or a subject-related expletive. Afrikaans consistently requires Spec-TP to be filled, but by a fronted vP containing a subject-element in its highest specifier, with English-style subject DP-raising being an alternative option in the modern spoken language[48]. Icelandic, German and Dutch only optionally require subject-raising to Spec-TP, with this raising being Agree-based in the latter two languages, but not the former.

We have also argued that the different status of Spec-TP in the various Germanic languages correlates in important ways with their expletive inventory, with the languages only requiring optional Spec-TP projection systematically lacking the vP-expletives (i.e. expletives capable of standing in for subjects in order to fill Spec-TP) found in English-type languages. Given that these languages lack overt vP-expletives and demonstrably have an alternative strategy to achieve what English-style languages achieve via vP-expletive insertion – optional

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[46] This difference may in fact also relate to the parametric difference proposed in Baker (2008a,b). In terms of his **Direction of Agreement Parameter**, the various functional heads in a language either do or do not Agree with the XPs located in their specifiers. We leave this matter to future research.

[47] In our terms, German is a language in which optional Agree-mediated movement to Spec-TP takes place. Null subjects will, however, be ruled out in this language either because T does not host the nominal features required to render pronouns a subset of the features on T (the deletion analysis) or because V fails to raise to T (the "I-subjects" approach; cf. section 2.2.2 above on the non-existence of (15b)-type grammars).

[48] This is true for embedded clauses, which do not permit scrambling over the subject, i.e. focus-scrambling of the sort discussed in note 27 is not possible in Afrikaans embedded clauses. Scrambling to the edge of the vP-phase – the sort that is often thought of as being triggered by an extra edge feature on v – is, of course, available in matrix contexts. As scrambled XPs of this type are, however, ultimately spelled out clause-initially (in Spec-CP), vP-raising will still result in the appearance of the raised vP in Spec-TP having a subject(-related) element in its highest specifier. This is schematised below:

(i)   [$_{CP}$ XP Vf [$_{TP}$ [$_{vP}$ ~~XP~~ subj … v] ~~Vf~~] [t$_{vP}$]]

Obviously, various technical questions remain – e.g. whether C is able to extract the clause-initial XP from Spec-TP or whether C and T probe simultaneously (cf. Chomsky 2008), how appropriate copies are spelled out and deleted, etc. These are left for future research.

subject-fronting – we concluded that none of the optional Spec-TP projection languages license pro_{EXPL-A}. Furthermore, the absence of a specially designated subject position leaves optional Spec-TP projection languages with the option of not obligatorily lexicalising referentially indeterminate subjects, an option which Icelandic, which lacks an overtly realised weather quasi-argument, employs to a greater extent than German and Dutch, which, depending on one's analysis of *es* and *er* in impersonal passives, may permit non-lexicalisation of this type of subject. In the quasi-argumental expletive domain too, then, Icelandic, German and Dutch do not require the postulation of a null subject (pro_{EXPL+A}). This leads us to the conclusion that none of the canonical semi NSLs in fact licenses any species of pro_{EXPL}. This, in turn, entails that these languages cannot belong to the class of semi NSLs as originally defined.

More generally, what we have seen in the Germanic context here suggests that semi NSL-type behaviour depends more on the status of Spec-TP than, as has traditionally been assumed, on inflectional considerations (cf. also Biberauer 2006). Inflectional considerations can, of course, be relevant in that insufficiently rich languages cannot have "pronominal agreement", which further entails that they will not be able to satisfy D* on T via V-to-T movement and will, therefore, if D* is obligatory, require expletives. Like its predecessors, then, the present proposal predicts loss of inflectional richness to bring about changes in V-raising and subject-related behaviour: where a D* was previously satisfied via V-to-T raising, this will no longer be possible when agreement morphology can no longer be analysed as "pronominal" by acquirers. Unlike its predecessors, however, our proposal does not entail that the loss of "pronominal agreement" will trigger the abrupt introduction of English-style subject phenomena. Instead, the possibility exists that a language which formerly satisfied D* via V-raising and which permitted optional XP-fronting to Spec-TP (triggered by free-standing *) may in the first instance be reanalysed as a language lacking V-to-T movement, with optional XP-raising continuing as before. Since subjects are likely to be the most commonly raised XPs, particularly if subject-raising vs non-raising is associated with information-structural considerations of the type that seem to be operative in Icelandic, free-standing * on T may subsequently be reanalysed as D* on T, at which point English-style subject behaviour will become obligatory. This gradual change from D* satisfied via V-raising to D* satisfied via DP-fronting is particularly likely to occur in V2 languages, where an additional V-movement operation (V-to-C) obscures the extent to which V-movement occurs independently of V2. This, we submit, is in fact precisely why the MSc languages, which at one stage in their history exhibited Icelandic-style generalised V2 (cf. Holmberg & Platzack 1995), underwent the changes they did in the way they did (cf. Falk 1993a,b for detailed consideration of the verb- and subject-related changes that Swedish underwent during the course of its history. The "lag factor" between the loss of agreement and final loss of subject-position-related phenomena like missing expletives, SF and consistent subject-raising is precisely what is predicted here). Similarly, the "lags" often noted in the rise of an English-style canonical subject position in the history of French may be the consequence of this language – which has also often been said to have initially been V2 (cf. i.a. Adams 1987a, Roberts 1993 and Vance 1997) – having initially had an Icelandic-style optional * on T, with the modern-day D* only having developed subsequently.[49] Clearly, much further research is required to establish the validity of these proposals; our main objective here has simply been to sketch out the diachronic possibilities opened up by the acknowledgement that even very closely related Indo-European languages may not all have the same D-related T-specifications.

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[49] If Biberauer & Roberts (forthcoming) are correct, V-to-T raising in French and Romance more generally is not contingent on "pronominal agreement", but instead on the richness of the tense system in these languages. Since all the languages in question have remained "tense-rich" in the sense proposed by Biberauer & Roberts, the fact that they have retained V-to-T emerges as unsurprising.

4   CONCLUSION

This paper set out to re-evaluate the feasibility of postulating pro_{EXPL} and a class of NSLs permitting only this null subject, the so-called semi NSLs. Based on empirical and theoretical arguments, we have concluded that expletives – both quasi-argumental and non-argumental – may be "missing" for a range reasons, that it is thus not justified to postulate pro_{EXPL} wherever an expletive fails to surface and, consequently, that it is not possible to identify a coherent class of semi NSLs, at least not in the sense of Rizzi (1986) .

Foremost among the considerations determining the presence vs absence of overtly realised English-style expletives is the nature of Spec-TP, which we have seen, does not universally appear to be uniquely reserved for subjects and subject-related expletives; instead, as current Probe-Goal-Agree theory and the so-called *Borer-Chomsky Conjecture* (cf. Baker 2008a) would lead us to expect, T's association with movement diacritics appears to be subject to parametric variation. We have shown that this is even true for the Germanic language family, whose members do not all share an English-style subject position.

As far as expletives are concerned, we have shown that only languages with an English-style Spec-TP systematically require overtly realised expletives; languages in which Spec-TP is either associated with an optional *, or in which T lacks a D-oriented * entirely, or in which T's V-features are associated with * will therefore all be predicted to lack the systematic expletive behaviour observed in English on the basis of which pro_{EXPL} was initially postulated. This is so because languages with an optional subject-raising trigger may use this mechanism to achieve what English-style languages achieve by means of expletive insertion (i.e. non-raising of the subject, with concomitant interpretive effects); they may, however, have "imposters" which superficially resemble English-style expletives, as our discussion of Dutch *er* and German *da* has shown (cf. also i.a. Sheehan 2006, Nicolis 2008 and Carilho 2008 and therein on expletive-like elements in Romance NSLs).

Further, the existence of topic-related CP-expletives should also be borne in mind: as the discussion has shown, languages may have these without having English-style expletives, and, indeed, the expectation is that expletive elements surfacing in so-called *topic-prominent* languages that have an obligatory topic position (e.g. Spec-CP or Spec-TP where C or T bears an obligatory free-standing *) will be of this exclusively peripheral type. In general, though, we might expect topic-prominent languages to lack expletives completely as the presence of an optional * on C or T will deliver the same effect (cf. Li & Thompson 1976, who register a lack of expletives as one of the defining properties of topic-prominent languages).

In turn, we would expect English-style expletives to be entirely superfluous in languages which completely lack * on T or with V*. This seems to be correct for V-oriented languages like the Slavic languages (cf. Franks 1995), Irish (cf. McCloskey 2001)[50], and also for V-initial languages like Niuean (cf. Massam & Smallwood 1997), Malagasy (cf. Paul 2000), Chamorro (Chung 1998), Tagalog and Seediq (Edith Aldridge, p.c.), all of which have

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[50] Welsh may be different as it appears to permit optional expletive realisation that in many ways seems to echo the situation in Dutch (David Willis, p.c.; as the gloss indicates, optional *'na* is homophonous with the locative adverbial):

(i)   a.   Mae 'na   wastad   rhywun   yno
             is   there   always   someone   there
             "There is always someone there"
       b.   Mae wastad   rhywun   yno
             is   always   someone   there
             "There's always someone there"
       c.   Mae rhywun   wastad   yno
             is   someone   always   there
             "Someone is always there"

The precise nature of Welsh *'na* and of the language's T-specification awaits closer investigation. The same is true of T in Arabic varieties which permit overt expletives and which additionally exhibit so-called *anti-agreement effects* (cf. Ouhalla 1991).

been argued to involve VP/vP/TP-movement either to Spec-TP or to Spec-CP (cf. Aldridge 2006 for discussion), since all of these languages lack overt expletives.[51] Breton deserves special mention here: Jouitteau (2005) analyses this language as one featuring D-driven vP-raising to Spec-TP – in Richards & Biberauer's (2005) terms, Breton is a head-piedpiping language as T's Goal is a v_D. Unsurprisingly, then, this language lacks English-style overt expletives, although Jouitteau (2006) highlights the existence of a preverbal expletive, *bez* (a shortening of infinitival *bezañ* – "to be"), whose sole function is to prevent the inflected verb from raising to initial position.[52] Evidently, then, much more needs to be learned about the precise range of expletives and expletive-like elements attested in the world's languages; what seems clear, though, is that the type(s) of overtly realised expletives found in a language will reflect "core" aspects of that language's grammatical orientation (D-prominence vs V-prominence, subject-prominence vs topic-prominence, etc., with these notions clearly not being primitive as overlaps are very evidently possible – cf. Tagalog, which is both V-oriented and topic-prominent).

Given the above, we therefore expect many languages to lack overtly realised expletives, exactly as the empirical record suggests. Further, since "missing" expletives can be the consequence of quite different parametric settings – just as "missing" referential subjects can be the reflex of a range of syntactic and post-syntactic factors (cf. Holmberg, forthcoming a and Biberauer 2008) – it is clear that postulating pro_{EXPL} wherever a structure lacks an English-style expletive is unjustified. The proposals discussed here lead us to expect that pro_{EXPL} may in fact only be licensed in NSLs which can be demonstrated to have an English-style EPP-requirement co-existing with the kind of nominal T-specification that sanctions pronoun deletion; for other systems, English-style expletives are expected to be extraneous. Without pro_{EXPL} and acknowledging that a range of grammatical properties may underlie the absence of overt expletives, it is clear that the notion 'semi NSL' and, with it, the null-subject typology in (3,4) cannot be upheld. This, however, does not entail that a parametric approach to null-subject phenomena is likewise unsustainable (cf. Newmeyer 2004, 2005, 2006). On the contrary, the discussion in this paper has shown that it is precisely the featural specifications of T and those of the substantive lexical items and FCs with which it interacts that determines whether a given system will or will not exhibit what appear to be expletive null-subject phenomena and what other subject- and non-subject-related properties this will correlate with. The original insight that parameter interaction underlies the availability of different types of null-subject systems therefore remains unchanged; what has changed is our understanding of the nature of parameters and, consequently, of the types of grammars that may each produce what, superficially, looks like "the same" phenomenon.

REFERENCES

Abels, Klaus (2008) 'Towards a restrictive theory of (remnant) movement.' *Linguistic Variation Yearbook* 7: 53-120.

Abraham, Werner (1993) 'Null subjects in the history of German: from IP to CP.' *Lingua* 89: 117-142.

Adams, Marian (1987) 'From Old French to theory of pro-drop.' *Natural Language and Linguistic Theory* 5:1-32.

Adger, David (2006) 'Combinatorial variation.' *Journal of Linguistics* 42: 503-530.

Aldridge, Edith (2004) *Ergativity and word order in Austronesian languages*. Ph.D. dissertation: Cornell.

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[51] Aldridge (2006: 6), in fact, registers optionality in respect of subject-raising in Tagalog, a topic-prominent language. In our terms, the absence of null expletives is therefore expected on at least two counts.

[52] Newton (2006) discusses Old Irish *no*, which appears to have served a very similar function to Breton *bez*. At least two V-prominent languages, then, appear to feature V- rather than D-oriented expletives.

Aldridge, Edith (2006) *The heterogeneity of VOS and extraction in Austronesian languages.* Unpublished ms: Northwestern University.

[Available on-line at: http://faculty.washington.edu/eca1/VOS.pdf]

Alexiadou, Artemis (1997). *Adverb placement: a case study in antisymmetric syntax.* Amsterdam: Benjamins.

Alexiadou, Artemis and Elena Anagnostopoulou (1998) 'Parametrizing Agr: Word order, V-movement and EPP-checking.' *Natural Language and Linguistic Theory* 16: 491-539.

Alexiadou, Artemis and Elena Anagnostopoulou (2001) The Subject-in-Situ Generalization and the role of Case in driving computations. *Linguistic Inquiry* 32.2, 193-231.

Alexiadou, Artemis and Elena Anagnostopoulou (2007) The Subject-In-Situ Generalization revisited. In Uli Sauerland and Hans-Martin Gärtner (eds.) *Interfaces + Recursion = Language? Chomsky's Minimalism and the view from syntax and semantics.* Berlin: Mouton de Gruyter, pp. 31-60.

Allen, Cynthia (1995) *Case marking and reanalysis. Grammatical relations from Old to Early Modern English.* Oxford: Oxford University Press.

Baker, Mark (2003a) *Lexical categories. Verbs, nouns, and adjectives.* Cambridge: Cambridge University Press.

Baker, Mark (2003b) Building and Merging, not Checking: the non-existence of (Aux)-S-V-O languages. *Linguistic Inquiry* 33: 321-329.

Baker, Mark (2008a) *The syntax of agreement and concord.* Cambridge: Cambridge University Press.

Baker, Mark (2008b) The macroparameter in a microparametric world. In Theresa Biberauer (ed.) *The limits of syntactic variation.* Amsterdam: Benjamins, pp. 351-374.

Baker, Mark, Kyle Johnson and Ian Roberts (1989) 'Passive arguments raised.' *Linguistic Inquiry* 20: 219-251.

Barbiers, Sjef (2005) 'Word order variation in three-verb clusters and the division of labour between genarative linguistics and sociolinguistics.' In Leonie Cornips and Karen Corrigan (eds.) *Syntax and variation. Reconciling the biological and the social.* Amsterdam: Benjamins, pp. 233-264.

Barbosa, Pilar (1995) *Null subjects.* Ph.D. dissertation: MIT.

Bayer, Josef (1984) 'COMP in Bavarian syntax.' *The Linguistic Review* 3: 209-274.

Bennis, Hans (1986) *Gaps and dummies.* Dordrecht: Foris.

Biberauer, Theresa (2003) *Verb Second (V2) in Afrikaans: a minimalist investigation of word order variation.* Ph.D. dissertation: University of Cambridge.

Biberauer, Theresa (2004) 'Reconsidering Spec-TP in Germanic.' *Cambridge Occasional Papers in Linguistics (COPiL)* 1: 15-40.

Biberauer, Theresa (2006). 'Changes at the edge: tracking the rise of a canonical subject position in Germanic.' Paper presented at the Edges in Syntax Conference (Nicosia, Cyprus).

Biberauer, Theresa (2008a) 'Introduction.' In Theresa Biberauer (ed.) *The limits of syntactic variation.* Amsterdam: Benjamins, pp. 1-72.

Biberauer, Theresa (2008b). 'On verb movement in Afrikaans.' Unpublished ms: University of Cambridge.

Biberauer, Theresa and Marc Richards (2006) 'True optionality: when the grammar doesn't mind.' In Cedric Boeckx (ed.) *Minimalist essays.* Amsterdam: Benjamins, pp. 35-67.

Biberauer, Theresa and Ian Roberts (2005) 'Changing EPP-parameters in the history of English: accounting for variation and change.' *English Language and Linguistics* 9.1: 5-46.

Biberauer, Theresa and Ian Roberts (2006) 'The loss of V-Aux orders and remnant fronting in Late Middle English: causes and consequences.' In Jutta Hartmann and Laszlo Molnárfi (eds.) *Comparative studies in Germanic syntax: from A(frikaans) to Z(ürich German).* Amsterdam: Benjamins, pp. 263-297.

Biberauer, Theresa and Ian Roberts (2008) 'Cascading parameter changes: internally driven change in Middle and Early Modern English.' In Thórhallur Eythórsson (ed.) *Grammatical change and linguistic theory: the Rosendal papers.* Amsterdam: John Benjamins, pp. 79-113.

Biberauer, Theresa and Ian Roberts (forthcoming). Subjects, tense and verb-movement. To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press

Bobaljik, Jonathan (2002) 'A-chains at the PF-interface: Copies and "covert" movement.' *Natural Language and Linguistic Theory* 20: 197-267.

Bobaljik, Jonathan and Dianne Jonas (1996) 'Subject positions and the roles of TP.' *Linguistic Inquiry* 27: 195-236.

Bobaljik, Jonathan and Höskuldur Thráinsson (1998) 'Two heads aren't always better than one.' *Syntax* 1: 37-71.

Boeckx, Cedric (2003) *Islands and chains. Resumption as derivational residue.* Amsterdam: Benjamins.

Bolinger, Dwight (1971) *Meaning and form.* London: Longman.

Borer, Hagit (1986) I-subjects. *Linguistic Inquiry* 17: 375-416.

Breivik, Leiv (1990) *Existential "there": a synchronic and diachronic study.* Oslo: Novus Press.

Broekhuis, Hans (2000) 'Against feature strength: the case of Scandinavian object shift.' *Natural Language and Linguistic Theory* 18: 673-721.

Burridge, Kate (1983) *Syntactic change in Germanic. Aspects of language change in Germanic with particular reference to Middle Dutch.* Amsterdam: John Benjamins.

Cardinaletti, Anna (1990) *Impersonal constructions and sentential arguments in German.* Padua: Unipress.

Cardinaletti, Anna (2004) 'Toward a cartography of subject positions.' In Luigi Rizzi (ed.) *The structure of CP and IP. The cartography of syntactic structures*. Oxford: Oxford University Press, pp. 115-165.

Cardinaletti, Anna. and Michal Starke (1999) 'The typology of structural deficiency: A case study of the three classes of pronouns.' In Henk van Riemsdijk (ed.) *Clitics in the languages of Europe*. Berlin: Mouton de Gruyter, pp. 145-235.

Carilho, Ernestina (2008) 'Beyond doubling: overt expletives in European Portuguese dialects.' In Sjef Barbiers, Margreet van der Ham, Olaf Koeneman and Marika Lekakou (eds.) *Microvariations in syntactic doubling.* London: Emerald, pp. 299-322.

Carnie, Andrew and Eithne Guilfoyle (eds.) (2000) *The syntax of verb-initial languages.* New York: Oxford University Press.

Carnie, Andrew, Sheila Dooley and Heidi Harley (eds.) (2005) *Verb first. On the syntax of verb-initial languages.* Amsterdam: Benjamins.

Cecchetto, Carlo (1999) 'A comparative analysis of left and right dislocation in Romance.' *Studia Linguistica* 53: 40-67.

Cecchetto, Carlo (2000) 'Doubling structures and reconstruction.' *Probus* 12: 93-126.

Chomsky, Noam (1981) *Lectures on Government and Binding.* Dordrecht: Foris.

Chomsky, Noam (1986) *Knowledge of language: its nature, origin, and use* Praeger: New York.

Chomsky, Noam (1995) *The Minimalist Program*. Cambridge, MA: MIT Press.

Chomsky, Noam (2000) 'Minimalist inquiries: the framework.' In Roger Martin, David Michaels and Juan Uriagereka (eds.) *Step by step: essays on minimalist syntax in honor of Howard Lasnik*. Cambridge, MA.: MIT Press, pp. 89-156.

Chomsky, Noam (2001) 'Derivation by phase.' In Michael Kenstowicz (ed.) *Ken Hale: a life in language*. Cambridge, MA.: MIT Press, pp. 1-53.

Chomsky, Noam (2005) 'Three factors in language design.' *Linguistic Inquiry* 36.1: 1-22.

Chomsky, Noam (2008) 'On phases.' In Robert Freidin, Carlos Otero and Maria-Luisa Zubizarreta (eds.) *Foundational issues in linguistic theory.* Cambridge, MA: MIT Press, pp. 133-166.

Chung, Sandra (1998) *The design of agreement: evidence from Chamorro.* Chicago: University of Chicago Press.

Cinque, Guglielmo (1999) *Adverbs and functional heads. A crosslinguistic perspective.* New York: Oxford University Press.

Cowper, Elizabeth and Daniel Currie Hall (2008) Argumenthood, pronouns, and nominal feature geometry. To appear in Jila Ghomeshi, Ileana Paul and Martina Wiltschko (eds.) *Determiners: variation and universals.* Amsterdam: Benjamins.

Davies, William and Stanley Dubinsky (2001) 'Functional architecture and subject properties.' In William Davies and Stanley Dubinsky (eds.) *Objects and other subjects: grammatical functions, functional categories, and configurationality.* Dordrecht: Kluwer, pp. 247-279.

Deal, Amy (2008) 'The origin and content of expletives: evidence from "selection".' To appear in *Syntax.*

De Hoop, Helen (1996) *Case configuration and Noun Phrase interpretation.* New York: Garland.

Diesing, Molly (1992) *Indefinites.* Cambridge, MA.: MIT Press.

Diesing, Molly and Eloise Jelinek (1995) 'Distributing arguments.' *Natural Language Semantics* 3: 123-176.

Den Dikken, Marcel (1995) *Particles. On the syntax of verb-particle, triadic, and causative constructions.* New York: Oxford University Press.

Den Dikken, Marcel (2007) *Questionnaire study on Dutch that-trace effects: stimuli and results.* Unpublished ms: CUNY.

[Available on-line at:

http://web.gc.cuny.edu/dept/lingu/dendikken/docs/dutch_that_trace_results.pdf]

Donaldson, Bruce (1993) *A grammar of Afrikaans.* New York: Mouton de Gruyter.

Epstein, Sam and Daniel Seely (2006) *Derivations in minimalism.* Cambridge: Cambridge University Press.

Evers, Arnold (1975) *The transformational cycle of Dutch and German.* Ph.D. dissertation: University of Utrecht.

Falk, Cecilia (1993a) *Non-referential subjects in the history of Swedish.* Ph.D. dissertation: University of Lund.

Falk, Cecilia (1993b) 'Non-referential subjects and agreement in the history of Swedish.' *Lingua* 89: 143-180.

Fitzpatrick, Justin (2006) 'Deletion through movement.' *Natural Language and Linguistic Theory* 24: 399 – 431.

Fox, Danny (2000) *Economy and semantic interpretation.* Cambridge, MA.: MIT Press.

Franks, Robert (1995) *Parameters of Slavic morphosyntax.* New York: Oxford University Press.

Freeze, Ray (2001) 'Existential constructions.' In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher and Wolfgang Raible (eds.) *Language typology and language universals.* (volume 2). Berlin: Mouton, pp. 941-953.

Frey, Werner (2001) 'About the whereabouts of indefinites.' *Theoretical Linguistics* 27: 137-161.

Frey, Werner and Karin Pittner (1998) 'Zur Positionierung von Adverbialen im deutschen Mittelfeld.' *Linguistische Berichte* 176: 489–534.

van Gelderen, Elly (1993) *The rise of functional categories.* Amsterdam: John Benjamins.

Gianollo, Chiara, Cristina Guardiano and Giuseppe Longobardi (2008) 'Three fundamental issues in parametric linguistics.' In Theresa Biberauer (ed.) *The limits of syntactic variation.* Amsterdam: Benjamins, pp. 109-142.

Gilligan, Gary (1987) *A cross linguistic approach to the pro-drop parameter*. Ph.D. dissertation: University of Southern California.

Grewendorf, Günther (1989) 'Small *pro* in German.' In Günther Grewendorf and Wolfgang Sternefeld (eds.) *Scrambling and barriers*. Amsterdam: Benjamins, pp. 294-315.

Haeberli, Eric (1999) 'On the word order 'XP-subject' in the Germanic languages.' *Journal of Comparative Germanic Linguistics* 3: 1-36.

Haeberli, Eric (2002) *Features, categories and the syntax of A-positions. Cross-linguistic variation in the Germanic languages*. Dordrecht: Kluwer.

Haegeman, Liliane (1992) *Theory and description in generative syntax*. Cambridge: Cambridge University Press.

Haegeman, Liliane (2006) 'Subject omission in present-day written English: On the theoretical relevance of peripheral data.' *Revista di gramatica generativa* 31.

Haider, Hubert (1993) *Deutsche Syntax Generativ*. Tübingen: Gunter Narr.

Haider, Hubert (2005) 'Mittelfeld Phenomena. Scrambling in Germanic.' In Martin Everaert and Henk van Riemsdijk (eds.) *The Blackwell Companion to Syntax*. Oxford: Blackwell, pp. 204-274.

Haider, Hubert and Inger Rosengren (1998) 'Scrambling.' *Sprache und Pragmatik* 49: 1-104.

Haider, Hubert and Inger Rosengren (2003) 'Scrambling: non-triggered chain formation in OV languages.' *Journal of Germanic Linguistics* 15.3: 203-267

Hale, Ken and Samuel Keyser (2000) *Prolegomenon to a theory of argument structure*. Cambridge, MA: MIT Press.

Halle, Morris and Alec Marantz (1993) 'Distributed Morphology and the pieces of inflection.' In Ken Hale and Samuel Keyser (eds.) *The view from Building 20*. Cambridge, MA: MIT Press, pp. 111-176.

Hartmann, Jutta (2008) *Expletives in existentials*. Ph.D. dissertation: Tilburg University.

Hazout, Ilan (2004) 'The syntax of existential constructions.' *Linguistic Inquiry* 35.3: 393-430.

Hermon, Gabriella and James Yoon (1989) 'The licensing and identification of *pro* and the typology of AGR.' *Chicago Linguistic Society* 25.1:174-192.

Heycock, Caroline and Antonella Sorace (2007) 'Verb movement in Faroese: New perspectives on an old question.' *Nordlyd* 35.

Hinterhölzl, Roland (2005) *Scrambling, remnant movement, and restructuring in West Germanic*. New York: Oxford University Press.

Hoekstra, Teun and René Mulder (1990) 'Unergatives as copular verbs; locational and existential predication.' *The Linguistic Review* 7: 1-79

Holmberg, Anders (2000) 'Scandinavian Stylistic Fronting: how any category can become an expletive.' *Linguistic Inquiry* 31.3: 445-483.

Holmberg, Anders (2005) 'Is there a little *pro*? Evidence from Finnish.' *Linguistic Inquiry* 36: 533-564.

Holmberg, Anders (2006) 'Stylistic Fronting.' In Martin Everaert and Henk van Riemsdijk (eds.) *The Blackwell Companion to Syntax*. Oxford: Blackwell, pp. 530-563.

Holmberg, Anders. (forthcoming a) 'Null subject parameters.' To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press.

Holmberg, Anders (forthcoming b) 'The null generic pronoun in Finnish: A case of incorporation in T'. To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press.

Holmberg, Anders, Aarti Nayudu and Michelle Sheehan (forthcoming). 'Three partial null-subject languages: a comparison of Brazilian Portuguese, Finnish, and Marathi.' In *Studia Linguistica* special edition (A. Holmberg (ed.)).

Holmberg, Anders and Christer Platzack (1995) *The role of inflection in Scandinavian syntax*. New York: Oxford University Press.

Holmberg, Anders and Michelle Sheehan (forthcoming) Control into finite clauses in partial null-subject languages. To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory*. Cambridge: Cambridge University Press.

Horvath, Julia (2000) 'Interfaces vs. the computational system in the syntax of focus.' In Hans Bennis, Martin Everaert and Eric Reuland (eds.) *Interface strategies*. Amsterdam: Royal Netherlands Academy of Arts and Sciences, pp. 183-206.

Horvath, Julia (2006) 'Pied-Piping.' In Martin Everaert and Henk van Riemsdijk (eds.) *The Blackwell Companion to Syntax*. Oxford: Blackwell, pp. 569-630.

Hrafnbjargarson, Gunnar (2004a) 'Stylistic Fronting.' *Studia Linguistica* 58. 2: 88-134.

Hrafnbjargarson, Gunnar (2004b) *Oblique subjects and Stylistic Fronting in the history of Scandinavian and English: the role of IP-Spec*. Ph.D. dissertation: University of Aarhus.

Huang, Yan (1994) *The syntax and pragmatics of anaphora: a study with special reference to Chinese*. Cambridge: Cambridge University Press.

Huang, Yan (2000) *Anaphora: a cross-linguistic study*. Oxford: Oxford University Press.

Ihsane, Tabea and Genoveva Puskas (2001) 'Specific is not definite.' *Generative Grammar in Geneva (GG@G)* 2: 39-54.

Jacobs, Joachim (1997) 'I-Topikalisierung.' *Linguistische Berichte* 168: 91-133.

Jaeggli, Osvaldo and Ken Safir (1989) *The null subject parameter*. Dordrecht: Foris

Jonas, Dianne (1996) *Clause structure and verb syntax in Scandinavian and English.* Ph.D. dissertation: Harvard.

Jónsson, Jóhannes (1991) *Clausal architecture and Case in Icelandic*. Ph.D. dissertation: University of Massachusetts, Amherst.

Jouitteau, Melanie (2004) 'Gestures as expletives, multichannel syntax.' In B. Schmeiser, Vineeta Chand, Ann Kelleher and Angelo Rodriguez and Benjamin Schmeiser (eds.) *Proceedings of WCCFL 23*. Somerville, MA: Cascadilla Press, pp. 422-435.

Jouitteau, Melanie (2005) 'Nominal properties of vPs in Breton: a hypothesis for the typology of VSO languages'. In Andrew Carnie, Sheila Dooley and Heidi Harley (eds.) *Verb first. On the syntax of verb-initial languages*. Amsterdam: Benjamins, pp. 265-280.

Kayne, Richard (1994) *The antisymmetry of syntax*. Cambridge, MA.: MIT Press.

Kayne, Richard (2008) Expletives, datives, and the tension between morphology and syntax. In Theresa Biberauer (ed.) *The limits of syntactic variation*. Amsterdam: Benjamins, pp. 175-218.

Kiss, Katlin (1996) 'Two subject positions in English.' *The Linguistic Review* 13: 119-142.

Koeneman, Olaf and Ad Neeleman (2001) 'Predication, verb movement and the distribution of expletives.' *Lingua* 111: 189-223.

Koster, Jan (1987) *Domains and dynasties: the radical autonomy of syntax*. Dordrecht: Foris.

Kratzer, Angelika and Elizabeth Selkirk (2007) 'Default phrase stress, prosodic phrasing and the spellout edge.' *The Linguistic Review* 24: 93-135.

Kroch, Anthony (1989) 'Reflexes of grammar in patterns of language change.' *Language Variation and Change* 1.3: 199-244.

Kroch, Anthony (1994) 'Morphosyntactic variation.' *Proceedings of the 30th regional meeting of the Chicago Linguistic Society*. In K. Beals, R. Knippen, L. Melnar, H. Suzuki and E. Zeinfeld (eds.) Chicago: University of Chicago Press, pp. 180-201.

Kroch, Anthony (2000) 'Syntactic change.' In Mark Baltin and Chris Collins (eds.) *The Handbook of Contemporary Syntactic Theory*. Malden, MA: Blackwell, pp. 629-739.

Lasnik, Howard (1995) 'Case and expletives revisited: on Greed and other human failings.' *Linguistic Inquiry* 26: 615-33. Republished as Lasnik, Howard (1999) In Howard Lasnik *Minimalist Analysis*. London: Blackwell, pp. 74-96.

Li, Charles and Sandra Thompson (1976) 'Subject and Topic: a new typology of language.' In Charles Li (ed.) *Subject and Topic*. London /New York: Academic Press, pp. 457-489.

Lightfoot, David (1991) *How to set parameters: arguments from language change.* Cambridge, MA: MIT Press.

Lohndal, Terje (2007) '*That*-t in Scandinavian and elsewhere: variation in the position of C.' *Working Papers in Scandinavian Syntax* 79: 47-73.

Longobardi, Giuseppe (1994) 'Reference and proper names: a theory of N-Movement in syntax and Logical Form.' *Linguistic Inquiry* 25: 609-665.

Lyons, Christopher (1999) *Definiteness.* Cambridge: Cambridge University Press.

Maling, Joan (1980) 'Inversion in embedded clauses in Modern Icelandic.' *Islenskt mal og almenn marfrædi* 2: 175-193. Reprinted in Joan Maling and Annie Zaenen (eds.) *Modern Icelandic syntax.* San Diego, CA.: Academic Press, pp. 71-91.

Massam. Diane (2000) 'VSO and VOS: aspects of Niuean word order.' In Andrew Carnie and Eithne Guilfoyle (eds.) *The Syntax of Verb-initial Languages.* New York: Oxford University Press, pp. 97-116.

Massam, Diane (2001) 'On predication and the status of subjects in Niuean.' In William Davies and Stanley Dubinsky (eds.) *Objects and other subjects: grammatical functions, functional categories, and configurationality.* Dordrecht: Kluwer, pp. 225-246.

Massam, Diane (2005) 'Lexical categories, lack of inflection, and predicate fronting in Niuean.' In Andrew Carnie, Sheila Dooley and Heidi Harley (eds.) *Verb First. On the syntax of verb-initial languages.* Amsterdam: Benjamins, pp. 227-242.

Massam, Diane and Caroline Smallwood (1997) 'Essential features of predication in English and Niuean.' *Proceedings of NELS 27*: 236-272.

Mathieu, Eric (2006) 'Stylistic Fronting in Old French.' *Probus* 18: 219–266.

Matushansky, Ora (2006) 'Head movement in linguistic theory.' *Linguistic Inquiry* 37,1: 69-110.

Mayr, Clemens (2009) 'On the necessity phi-features: the case of Bavarian subject extraction.' In P. Panagiotidis (ed.) *The complementizer domain: subjects and wh-dependencies.* Oxford: Oxford University Press.

McCloskey, James (2001) 'The morphosyntax of *wh*-extraction in Irish' *Journal of Linguistics* 37: 67-100.

McShane, Marjorie (forthcoming). 'Subject ellipsis in Russian and Polish.' In *Studia Linguistica* special edition (A. Holmberg (ed.)).

Milsark, Gary (1974) *Existential sentences in English.* Ph.D. dissertation: MIT. Published as: Gary Milsark (1979) *Existential sentences in English.* New York: Garland.

Modesto, Marcello (2008) 'Topic prominence and null subjects.' In Theresa Biberauer (ed.) *The limits of syntactic variation.* Amsterdam: John Benjamins, pp. 375-410.

Mohr, Sabine (2005) *Clausal architecture and subject positions.* Amsterdam: Benjamins.

Moro, Andrea (1997) *The raising of predicates.* Cambridge: Cambridge University Press.

Müller, Gereon (1998) *Incomplete category fronting. A derivational approach to remnant movement in German.* Dordrecht: Kluwer.

Müller, Gereon (2004a). 'Verb-second as vP-first.' *Journal of Comparative Germanic Linguistics* 7.3: 179-234.

Müller, Gereon (2004b). 'Argument encoding and the order of elementary operations.' Unpublished ms: Leipzig.

[Available on-line at: http://www.uni-leipzig.de/~muellerg/mu56.pdf]

Müller, Gereon (2004c) 'Phrase impenetrability and wh-intervention.' In Arthur Stepanov, Gisbert Fanselow and Ralf Vogel (eds.) *Minimality effects in syntax.* Berlin: de Gruyter, pp. 289-325.

Müller, Gereon (2005) 'Pro-drop and Impoverishment.' In Patrick Brandt and Eric Fuss (eds.) *Form, structure and grammar. A Festschrift presented to Günther Grewendorf on the occasion of his 60th birthday.* Tübingen: Narr, pp. 93-115.

Müller, Gereon (2007) 'Some consequences of an Impoverishment-based approach to morphological richness and pro-drop.' Unpublished ms: Leipzig.

[Available on-line at: http://www.uni-leipzig.de/~muellerg/mu228.pdf]

Neeleman, Ad (1994) *Complex predicates*. Ph.D. dissertation: Utrecht University.

Neeleman, Ad and Hans van de Koot (2006) 'Syntactic haplology.' In Martin Everaert and Henk van Riemsdijk (eds.) *The Blackwell Companion to Syntax*. Oxford: Blackwell, pp. 684-710.

Neeleman, Ad and Hans van de Koot (2008) 'Dutch scrambling and the nature of discourse templates.' To appear in *Journal of Comparative Germanic Linguistics* 11.

Neeleman, Ad and Kriszta Szendrői (2007) 'Radical pro-drop and the morphology of pronouns.' *Linguistic Inquiry* 38: 671-714.

Neeleman, Ad and Kriszta Szendrői (2008) 'Radical pro-drop and the morphology of pronouns.' In Theresa Biberauer (ed.) *The limits of syntactic variation*. Amsterdam: Benjamins, pp. 331-350.

Neeleman, Ad and Fred Weerman (1999) *Flexible syntax. A theory of Case and arguments*. Dordrecht: Kluwer.

Newmeyer, Frederick (2005a) *Possible and probable languages. A generative perspective on linguistic typology*. Oxford: Oxford University Press.

Newmeyer, Frederick (2005b) 'Against a parameter-setting approach to typological variation.' *Linguistic Variation Yearbook* 4: 181-234.

Newmeyer, Frederick (2006) 'A rejoinder to "On the role of parameters in Universal Grammar: a reply to Newmeyer" by Ian Roberts and Anders Holmberg.' Unpublished ms: University of Washington (Seattle).

[Available on-line at: http://people.pwf.cam.ac.uk/mtb23/NSP/Parametricdebate.html]

Newton, Glenda (2006) *The development and loss of the Old Irish double system of verbal inflection*. Ph.D. dissertation: University of Cambridge.

Newton, Glenda (forthcoming) 'Accounting for *do*-support post-syntactically: evidence from Old Irish'. To appear *Proceedings of the 32nd Penn Linguistics Colloquium*.

Nicolis, Marco (2005) *On pro-drop*. Ph.D. dissertation: Università degli Studi di Siena.

Nicolis, Marco (2008) 'The null subject parameter and correlating properties: the case of creole languages.' In Theresa Biberauer (ed.) *The limits of syntactic variation*. Amsterdam: Benjamins, pp. 271-294.

Ouhalla, Jamal (1991) *Functional categories and parametric variation*. London: Routledge.

Paul, Ileana (2000) *Malagasy Clause Structure*. Ph.D. dissertation: McGill University.

Pesetsky, David (1989) *Language-particular processes and the Earliness Principle*. Unpublished ms.: MIT.

[Available on-line at: http://web.mit.edu/linguistics/people/faculty/pesetsky/earliness.pdf]

Platzack, Christer (1985) 'The Scandinavian languages and the null subject parameter.' *Working Papers in Scandinavian Syntax* 20. Department of Linguistics: University of Trondheim. Republished as Christer Platzack (1987) 'The Scandinavian languages and the null-subject parameter.' *Natural Language and Linguistic Theory* 5: 377-401.

Ponelis, Frederick (1993) *The development of Afrikaans*. Frankfurt: Peter Lang.

Postal, Paul (1977) 'About a "nonargument" for raising.' *Linguistic Inquiry* 8: 141-54.

Reinhart, Tanya (1995) 'Interface strategies.' *OTS working papers in linguistics*. Utrecht.

Rezac, Milan (2004) *Elements of cyclic syntax: Agree and Merge*. Ph.D. dissertation: University of Toronto.

Richards, Marc (2004) *Object Shift in North and West Germanic: optionality, scrambling and base-generated OV*. Ph.D. dissertation: University of Cambridge.

Richards, Marc (2007) 'On feature-inheritance: an argument from the Phase Impenetrability Condition.' *Linguistic Inquiry* 38.3: 563-572.

Richards, Marc and Theresa Biberauer (2005) 'Explaining *Expl*.' In Marcel den Dikken and Christina Tortora (eds.) *The function of function words and functional categories*. Amsterdam: Benjamins, pp. 115–154.

Richards, Norvin (2001) *Movement in language. Interactions and architectures.* Oxford: Oxford University Press.

Rizzi, Luigi (1982) *Issues in Italian syntax.* Dordrecht: Foris.

Rizzi, Luigi (1986) 'Null Objects in Italian and the theory of *pro.*' *Linguistic Inquiry* 17: 501-557.

Rizzi, Luigi (1997) 'On the fine structure of the left periphery.' In Liliane Haegeman (ed.). *Elements of grammar.* Dordrecht: Kluwer, pp. 281-337.

Rizzi, Luigi (2006) 'Grammatically-based target-inconsistencies in child language.' In K. Deen, J. Nomura, B. Schulz and B. Schwartz (eds.). *The Proceedings of the Inaugural Conference on Generative Approaches to Language Acquisition - North America (GALANA). UCONN / MIT Working Papers in Linguistics.* Cambridge, MA: MIT Press.

Rizzi, Luigi and Ur Shlonsky (2005) *Strategies of subject extraction.* Unpublished ms.: University of Siena and University of Geneva.

[Available on-line at: http://www.ciscl.unisi.it/doc/doc_pub/rizzi_shlonsky2005.pdf]

Roberts, Ian (1985) 'Agreement parameters and the development of English modal auxiliaries.' *Natural Language and Linguistic Theory* 3: 21-58.

Roberts, Ian (1993) *Verbs and diachronic syntax.* Dordrecht: Kluwer.

Roberts, I. (forthcoming) 'A deletion analysis of null subjects.' To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory.* Cambridge: Cambridge University Press.

Roberts, Ian (forthcoming) 'Varieties of French and the null subject parameter.' To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory.* Cambridge: Cambridge University Press.

Roberts, Ian and Anders Holmberg (forthcoming) 'Introduction.' To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory.* Cambridge: Cambridge University Press.

Rosengren, Inger (2002) 'EPP: a syntactic device in the service of semantics.' *Studia Linguistica* 562: 145-190

Sabel, Joachim (2000) 'Expletives as features.' In Roger Billerey and Brooke Lillehaugen (eds.). *Proceedings of the 19th West Coast Conference on Formal Linguistics 19*: 401-414.

Schwartz, Bonnie and Sten Vikner (1996) 'The verb always leaves IP in V2 clauses.' In Adriana Belletti and Luigi Rizzi (eds.). *Parameters and functional heads.* New York: Oxford University Press, pp. 11-62.

Sells, Peter (2005) 'The peripherality of the Icelandic expletive.' In Miriam Butt and Tracey King (eds.) *Proceedings of LFG-05.* Stanford: CSLI Online Proceedings, pp. 408-428.

Sheehan, Michelle (2006) *The EPP and null subjects in Romance.* Ph.D. dissertation: University of Newcastle.

Sheehan, Michelle (forthcoming) ''Free' inversion in Romance and the Null Subject Parameter'. To appear in Anders Holmberg and Ian Roberts (eds.). *Parametric Variation: Null Subjects in Minimalist Theory.* Cambridge: Cambridge University Press.

Shlonsky, Ur (forthcoming) 'Partial null subjects in Hebrew.' In *Studia Linguistica* special edition (A. Holmberg (ed.)).

Sigurðsson, Halldor (1989) *Verbal syntax and case in Icelandic.* Ph.D. dissertation: und University.

Sigurðsson, Halldor (2000) 'The locus of Case and agreement.' *Working Papers in Scandinavian Syntax* 65: 65-108.

Sigurðsson, Halldor and Verner Egerland (forthcoming). 'Impersonal null subjects in Icelandic and elsewhere.' *Studia Linguistica* special issue (A. Holmberg (ed.)).

Sigurðsson, Halldor and Joan Maling (2008) 'Argument drop and the Empty Left Edge Condition.' *Working Papers in Scandinavian Syntax* 81: 1-27

Svenonius, Peter (2002) 'Introduction.' In Peter Svenonius (ed.) *Subjects, expletives, and the EPP*. Oxford: Oxford University Press, pp. 3-28.

Svenonius, Peter (2004) 'On the edge.' In David Adger, Cecile de Cat and George Tsoulas (eds.). *Peripheries*. Dordrecht: Kluwer, pp. 259-87.

Szabolcsi, Anna (1983) 'The possessor that ran away from home.' *The Linguistic Review* 3: 89-102.

Szabolcsi, Anna (1994) 'The Noun Phrase.' In Ferenc Kiefer and Katalin Kiss (eds.) *The Syntactic Structure of Hungarian*. San Diego: Academic Press, pp.179-274.

Tamburelli, Marco (2006) 'Remarks on richness.' *UCL Working Papers in Linguistics* 18: 439-55.

Taraldsen, Tarald (2002) 'The *que/qui* alternation and the distribution of expletives.' In Peter Svenonius (ed.) *Subjects, expletives, and the EPP*. Oxford: Oxford University Press, pp. 29-42.

Thráinsson, Höskuldur (2003) 'Syntactic variation, historical development, and minimalism'. In Randall Hendrik (ed.) *Minimalist syntax*. Oxford: Blackwell, pp. 152-191.

Thráinsson, Höskuldur, Hjalmar Petersen, Jógvan Jacobsen, Zakaris Hansen (eds.) (2004) *Faroese. An overview and reference grammar*. Tórshavn: Foroya Frodskaparfelag.

Travis, Lisa (1984) *Parameters and effects of word order variation*. Ph.D. dissertation: MIT.

Travis, Lisa (2006) 'VP-, D-movement languages.' In Raffaella Zanuttini, Hector Campos, Elena Herburger and Paul Portner (eds.). *Negation, tense and clausal architecture*. Georgetown: Georgetown University Press Publishers, pp. 127-150.

Vance, Barbara (1997) *Syntactic change in Medieval French. Verb-Second and null subjects*. Dordrecht: Kluwer.

Vangsnes, Øystein (2002) 'Icelandic expletive constructions and the distribution of subject types.' In Peter Svenonius (ed.) *Subjects, expletives, and the EPP*. Oxford: Oxford University Press, pp. 43-70.

Vikner, Sten (1995) *Verb movement and expletive subjects in the Germanic languages*. Oxford: Oxford University Press.

Vikner, Sten (2001) *Verb movement variation in Germanic and Optimality Theory*. Habilitationschrift: Tübingen.

Vikner, Sten (2005) 'Immobile complex verbs in Germanic.' *Journal of Comparative Germanic Linguistics* 8.1/2: 83-115.

Williams, Alexander (2000) 'Null subjects in Middle English existentials.' In Susan Pintzuk, George Tsoulas and Anthony Warner (eds.) *Diachronic syntax. Models and mechanisms*. Oxford: Oxford University Press, pp. 164-187.

Wurmbrand, Susanne (2004) 'Syntactic vs. post-syntactic movement.' In S. Burelle and S. Somesfalean (eds.). *Proceedings of the 2003 Annual Meeting of the Canadian Linguistic Association (CLA)*, 284-295.

Wurmbrand, Susanne (2006) 'Licensing Case.' *Journal of Germanic Linguistics* 18.3: 175-236.

Zwart, Jan-Wouter (2007) 'Uncharted territory? Towards a noncartographic account of Germanic syntax.' *Groninger Arbeiten zur germanistischen Linguistik* 45: 55-75.

Theresa Biberauer
Linguistics Department
Sidgwick Avenue
University of Cambridge
Cambridge
CB3 9DA
United Kingdom

mtb23@cam.ac.uk