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Ordering discontinuous φ-feature agree: verbal *-s* in North Eastern English

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Abstract

North Eastern English differs from Standard English with respect to agreement: According to the *Northern Subject Rule*, 3SG agreement marking (*verbal -s*) occurs on verbs in clauses with non-3SG subjects provided that they are not personal pronouns adjacent to the verb. However, data from the *Diachronic Electronic Corpus of Tyneside English* shows that verbal *-s* also does not occur with non-adjacent personal pronouns subjects in contemporary North Eastern English. I argue that verbal *-s* with non-pronominal non-3SG subjects follows from two conceptual assumptions: firstly, the requirement to order feature-driven elementary operations and secondly, splitting up φ-Agree into two separate operations (i.e., person and number Agree). The difference in agreement between North Eastern English and Standard English stems from the different ordering of features on T. In Standard English, person and number probes are ordered before the structure building feature, which triggers movement. In the North Eastern English order, however, the structure-building feature intervenes between the two probe features. The full DP/pronoun split is explained by different kinds of movement: In the case of a full DP, subject movement to Spec/TP bleeds number agreement and verbal *-s* emerges, while pronominal subjects remain in the c-command domain of T because they head-move to T.

Keywords Northern subject rule · Sequential interaction · Head movement · Syntactic variation

1 Introduction

This article is concerned with agreement variation in North Eastern English (NEE). In the literature, this phenomenon is often called *Northern Subject Rule* (NSR; see, e.g., Pietsch 2005a, b). According to the NSR, verbs can take the 3SG agreement marker

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-s (*verbal -s*)[1] in clauses with non-3SG subjects as shown in (1a). Crucially, this is not possible if the subject is a personal pronoun as in (1b), except if the pronominal subject is non-adjacent to the verb (1c) and (1d).

(1)   Traditional NSR pattern:[2]
      a.   The cars *drives* fast.
      b.   * They *drives* fast.
      c.   They really *drives* fast.
      d.   They look cool and *drives* fast.

A definition of the NSR with its conditions given is in (2). This definition follows the terminology in the literature although the Position-of-Subject Constraint (PSC) is strictly speaking not a rule and, thus, I will use the terms PSC and *adjacency condition* interchangeably.

(2)   Northern Subject Rule (NSR; Childs 2012, 319–320):
      The 3SG present tense agreement marker -s (verbal -s) can occur with
      non-3SG subjects under the following conditions.
      a.   Type-of-Subject Constraint (TSC):
            Verbal -s is permitted if the subject is not a personal pronoun.
      b.   Position-of-Subject Constraint (PSC):
            Verbal -s can occur with personal pronouns as the
            subject if the subject and verb are non-adjacent.

I propose an analysis which makes use of ordering elementary operations. φ-feature Agree is split up into two distinct probe operations (hence, *discontinuous φ-feature Agree*). Variation between NEE and Standard English (StE) agreement arises from the intervention of Internal Merge between two instances of Agree (i.e., person π and number #) in the case of NEE. Internal Merge bleeds number agreement as the subject DP moves out of the c-command domain of T before it can value the number feature on T. In post-syntactic morphology, the exponent -s is inserted. Crucially, personal pronouns are able to remain in the c-command domain of T after Internal Merge as they head-adjoin to T. Therefore, pronominal subjects are able to value the number feature on T, resulting in successful number agreement.

    The paper is structured as follows: In Sect. 2, I will illustrate the environments of verbal -s in NEE on the basis of a corpus study. Interestingly, the data will show that the adjacency condition in (2b) is no longer productive in contemporary NEE. Section 3 contains the proposal along with crucial theoretical considerations for the analysis of verbal -s. In Sect. 4, I will summarise previous and alternative accounts on verbal -s in non-standard varieties of English and compare them to the proposal of Sect. 3. Lastly, Sect. 5 concludes the discussion and provides an outlook.

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[1] If not specified otherwise, I will use this term (i.e., *verbal -s*) to refer to the occurrence of 3SG morphology on verbs in the context of non-3SG subjects.

[2] If not indicated otherwise, all examples and grammatical judgements in this paper refer to North Eastern English.

Table 1 Verbal -*s* with non-3SG subjects

	Adjacent		Non-adjacent		Total	
3PL full DPs	15/977	1.54%	0/84	0%	15/1061	1.41%
Pro. (excl. *says*)	2/16423	0.01%	0/799	0%	2/17222	0.01%
Pro. and *says*	59/208	28.37%	0/17	0%	59/225	26.22%
I and *says*	57/61	93.44%	0/10	0%	57/71	80.28%

2 Data

2.1 The corpus

The variety of North Eastern English is spoken in the North East of England comprising the counties Northumberland and Durham, the metropolitan county Tyne and Wear (including Gateshead, Newcastle upon Tyne and Sunderland) and parts of North Yorkshire. Empirical evidence comes from the *Newcastle Electronic Corpus of Tyneside English 2* (NECTE2), which is the most recent sub-corpus (2007–2010) of the *Diacronic Electronic Corpus of Tyneside English* (DECTE, Corrigan et al. 2012) and consists of 366,062 word tokens from 44 interviews with female and male informants between the ages of 16 and 90. The query results were evaluated manually and instances of verbal -*s* relevant for this study were retrieved.[3]

2.2 Corpus data

Table 1 illustrates the frequencies of traditional NSR contexts (i.e., the full DP/pronominal split and the adjacency condition) in the NECTE2 corpus. The relative frequencies represent the occurrences of -*s* in a particular configuration (i.e., type of subject or syntactic construction) with respect to all instances of this configuration. In the constructions with pronominal subjects, co-occurrences of *I* with *was* were excluded from the count.

As shown by the first row in Table 1, verbal -*s* variably occurs in clauses with non-3SG full DP subjects and lexical verbs (3a),[4] and with both present tense (3b) as well as past tense *be* (3c). *Be* clearly shows the NSR pattern: Verbal -*s* (i.e., *is* and *was*) occurs in clauses with 3PL full DP subjects, but not with non-(1/)3SG pronominal

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[3] For the purpose of the study, the original NECTE2 files were pre-processed. The corpus files were stripped of XML, chunked, tokenised and annotated with Parts-of-Speech tags using the *Tree Tagger* tool (Schmid 1994, 1995). Subsequently, the tagged corpus files were converted into a database with *Pepper* (Zipser and Romary 2010) in order to make them compatible with the query tool *ANNIS* (Krause and Zeldes 2016).

[4] I assume here that the partitive construction in (3a) is a DP and has the following structure: [DP two [PP of [DP those new skates]]] (see also Stickney 2009 for a discussion).

subjects.[5] Verbal *-s* on present or past tense *be* accounts for 14 of the 15 instances of verbal *-s* with full 3PL subjects in main clauses.

(3) Verbal *-s* with full 3PL subjects:

    a. It's like two of these new skates *weighs* like half of the
       one I've got.   [NECTE2]

    b. Their wages *is* out of this world.   [NECTE2]

    c. All of our costumes *was* just getting dragged off and we were all
       fighting and stuff.   [NECTE2]

According to the PSC of the traditional NSR, verbal *-s* is not permitted with non-3SG pronominal subjects, except if the pronominal subject is not immediately adjacent to the verb (1c). As the second row in Table 1 suggests, non-adjacent pronominal subjects do not co-occur with verbal *-s* in the NECTE2 corpus; some examples are given in (4). This is in line with Cole's (2008, 94) conclusion that the adjacency condition is no longer relevant in contemporary NEE. Studies by Childs (2012) and Buchstaller et al. (2013) also support the claim that the PSC is not productive in contemporary Northern English and Scottish varieties. An updated version of the NSR, adapted to illustrate the phenomenon in contemporary NEE, is given in (5).

(4) Full agreement with non-adjacent 3PL pronominal subjects:

    a. They really *love* their beer.   [NECTE2]

    b. You just don't understand how normal they actually *are*.   [NECTE2]

    c. They always *think* that I'm the same.   [NECTE2]

(5) Contemporary Northern Subject Rule:
    The 3SG present tense agreement marker *-s* (verbal *-s*) can occur
    with non-3SG subjects if the subject is not a personal pronoun.

However, something must be said about the cases of non-3SG pronouns triggering *-s* on adjacent verbs, which is not predicted by the NSR conditions (i.e., the values in the second column in rows two to four of Table 1). Interestingly, 59 of the 61 instances of such configurations involve the lexical verb *says* (6), while the only other two instances are also introducing reported speech (7).

(6) Non-3SG pronominal subjects and *says*:

    a. I *says* "you know that I'm a Geordie."   [NECTE2]

    b. I thought playing the likes of Chelsea and Man U and them I *says*
       "no chance."   [NECTE2]

    c. But as you *says* a new council took over didn't they?   [NECTE2]

    d. They *says* "can you not swim?"   [NECTE2]

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[5] Past tense *be* is included here because there is no *was/were* levelling in NEE rather "past tense *be* still preserves a reflex of the NSR in its distribution" (Cole 2008, 103). In the NECTE2 corpus, there are no instances of *you/we was* (0%, $N = 628$).

Table 2 Verbal *-s* in other constructions

	Total	
Relative clauses	5/157	3.18%
Coordinated verbs	1/323	0.31%
Expletives (full verb)	50/182	27.47%
Expletives (contracted)	104/182	57.14%

(7)   3PL pronominal subjects and *-s*:
    a.   They *was* like "you're not allowed to go on any school trips."   [NECTE2]
    b.   Then they *was* like "yeah, (NAME), you cannae stay."[6]   [NECTE2]

According to Cole (2008, 101), examples such as in (6) are unrelated to the NSR since they are part of a more widespread phenomenon of *-s* marking the historic present. The high relative frequency of of *I says* (57/61), as shown by the fourth row in Table 1 (a subset of the third row), also hints at a fixed pattern (cf. Pietsch 2005b, 98). Indeed, verbal *-s* seems to be correlated with narrative contexts or habitual aspect in various contemporary English dialects, even those historically not linked to the NSR pattern (cf. Godfrey and Tagliamonte 1999 and references therein). Moreover, the narrative *-s* pattern is also attested in typical NSR dialects (Pietsch 2005b, 137–138). Given these facts and given that narrative *-s* does not follow the traditional NSR template (i.e., the split between full DPs and verb-adjacent pronouns), I will not consider it in the analysis in Sect. 3.3. However, a brief discussion of how *-s* could arise even with adjacent pronouns is included in fn. 28.

Table 2 depicts occurrences of *-s* in NSR-related constructions. Verbal *-s* is possible in relative clauses that modify a plural DP (8).

(8)   Verbal *-s* in relative clauses:
    a.   And these clubs what'*s* paying this well they must be making the
        money to pay it out.   [NECTE2]
    b.   There was loads of words that *was* said.   [NECTE2]
    c.   People who know anything about Durham are probably the ex-students
        who'*s* went there.   [NECTE2]
    d.   …all them that *was* in that video with that young sixteen-year-old
        bird.   [NECTE2]

A further interesting case is verbal *-s* with coordinated verbs, whereby the first verb shows full agreement with the subject, while the second verb shows verbal *-s* as illustrated in (9). However, the only instance of this construction in the corpus is again introducing reported speech.

(9)   Verbal *-s* with coordinated verbs:
    You *put* this facade on on the outside and *thinks* "he's a fit looking
    guy."   [NECTE2]

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[6] *Cannae* is a dialectal form for 'cannot'. Note also that names are redacted in the corpus.

Further cases of verbal -*s* are exemplified in (10) where expletive *there* together with a plural associate (e.g., *mud rivers* in (10a)) trigger singular agreement. These examples seem to pattern with the (proper) NSR in the sense that the involvement of non-3SG full DPs (in this case, the plural associate) can trigger verbal -*s* on the main verb.

(10)   Verbal -*s* with expletive *there*:

     a. There *was* like mud rivers and stuff.   [NECTE2]

     b. There'*s* always people in Whitley Bay like going out.   [NECTE2]

However, Cole (2008, 105) classifies this as a "default singular system" which she claims to be a part of a wider non-standard pattern that is also present in varieties that do not show NSR-type agreement variation. Moreover, Wilson and Henry (1998, 11–12) argue that verbal -*s* and singular morphology with existential *there* are independent phenomena in Belfast English (given that the former seems to be disappearing while the latter is spreading). Non-agreement in existentials occurs independently of the NSR, and I will not consider it for the analysis on verbal -*s* in the remainder of the paper (see, e.g., Cardinaletti 1997; Schütze 1999; Witkoś 2004, i.a. for approaches to (non-)agreement in existential constructions).

To summarise, the corpus data suggest that verbal -*s* can be triggered by non-pronominal 3PL subjects in contemporary NEE. An analysis of the NSR must primarily focus on the apparent split between full DP subjects and pronominal subjects in their ability to trigger verbal -*s*. Moreover, constructions such as verbal -*s* in relative clauses should be accounted for.

3 Discontinuous agree

In the following, I will make some assumptions about the syntax and morphology for the analysis of verbal -*s* in North Eastern English (Sect. 3.1). In the ensuing Sect. 3.2, I will propose that verbal -*s* is the result of discontinuous Agree. In NEE, Internal Merge intervenes between two instances of Agree. While full DP subjects move out of the c-command domain of T to Spec/TP (resulting in unsuccessful number probing and verbal -*s*), pronominal subjects remain in the c-command domain of T and therefore full agreement is established.[7] In Sect. 3.3 this proposal is applied to the data. Section 3.4 suggests an extension to the analysis in order to capture varieties with an intact adjacency condition, while finally, Sect. 3.5 briefly discusses an alternative feature ordering.

3.1 Assumptions

3.1.1 Syntactic operations

Elementary syntactic operations are feature-driven (Chomsky 2000, 2001). Merge cyclically builds up syntactic structure and is triggered by structure-building features

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[7] This proposal shares an insight with Henry (1995) and Tortora and den Dikken (2010) in the sense that there are two subject positions from which different kinds of agreement morphology can be derived.

[●F●]. Syntactic movement can be translated into Internal Merge: The merged object is already part of the derivation but is displaced and merged again at a higher position in the structure. The second operation is Agree, which encodes arguments by case assignment and/or agreement. It is triggered by unvalued probing features [∗F:□∗] and operates under c-command.[8] Agree values the probe feature according to the feature value on the respective goal. A standard definition of Agree along the lines of Chomsky (2001) is given in (11).

(11)   Agree:
     A probe α can Agree with a goal β iff (a) to (d) hold.

     a. α is unvalued and seeks the value of (a feature on) β

     b. α c-commands β

     c. β is the closest goal to α

     d. β is associated with an unvalued or matching case feature[9]

(12)   Closeness (Heck and Richards 2010, 690):
     Goal β is closer to probe α than goal γ if (a) and (b) hold.

     a. α c-commands both β and γ

     b. β c-commands γ and γ does not c-command β

Furthermore, given that syntactic operations are able to show transparent interaction, they have to apply sequentially instead of simultaneously. As both Merge and Agree can be triggered on the same head, an order of the operations is required. This is accomplished by ordering the (structure-building and probing) features on a head via language-specific parameters (Heck and Müller 2007; Müller 2009; Georgi 2014, 2017).

     Since φ-features are further subdivided into a person [π] and a number feature [#],[10] which can be valued independently from each other, person and number each require a distinct probing operation (see, e.g., Laka 1993; Kayne 1995; Taraldsen 1995; Tortora 1998; Béjar 2003; Béjar and Rezac 2003; Sigurðsson 2004; Sigurðsson and Holmberg 2008; Georgi 2014; Preminger 2014). In other words, if a head H has two probing features [∗π∗] and [∗#∗],[11] two separate Agree operations are triggered on H instead of a single instance of uniform φ-Agree. Again, the operations apply

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[8] The notation for structure-building and probing features is adopted from Heck and Müller (2007). In the remainder of this paper, the notation of unvalued probes will be abbreviated to [∗F∗], while valued features will be displayed as [F : ±α].

[9] The so-called activity condition is adapted to cases where a syntactic node hosts several unvalued probes that are sequentially discharged. This formulation ensures that more than one probe can be valued by features on the same goal. At the same time, the activity condition prevents agreement between T and the internal DP if it raises to Spec/vP, because DP$_{Int}$ would have already received case from v.

[10] This is a simplification as well, as [person] is further subdivided into [± author] and [± participant], with [+ 3] equalling [− author, − participant] (Nevins 2007). In the following, number is taken to be [± plural]. Since gender is irrelevant for English verbal inflection and agreement, it is disregarded here.

[11] This is a departure from Sigurðsson and Holmberg (2008) and Preminger (2014), where π and # are separate probing heads, contrasting with, e.g., Béjar and Rezac (2003) and Georgi (2014), who locate two different agreement probes on a single head

sequentially, with $[*\pi*]$ being universally ordered before $[*\#*]$ (c.f. Béjar and Rezac 2003; Coon and Keine 2021).[12]

3.1.2 Pronominal head movement

Additionally, an assumption about (English) personal pronouns has to be made: On the basis of bare phrase structure (Chomsky 1995), personal pronouns are taken to be minimal and maximal at the same time as they do not project any further (hence, the notation $D^{min/max}$; cf. Muysken and van Riemsdijk 1986; van Riemsdijk 1998).[13] Thus, personal pronouns should be able to show characteristics of both phrases and heads; that is they should be able to adjoin directly to heads under head movement (see also Déprez 1994; in an LFG analysis by Börjars and Chapman 1998, pronominal clitics are adjoined to the verb). Instead of phrasal movement, head movement of pronominal subjects is carried out because $D^{min/max}$ is able to do so and movement to T is the shortest available movement step (cf. Richards 1999, 2001 for tucking-in). As a result, the personal pronoun is still under c-command of T after movement.[14]

   Potential support for pronominal head movement comes in the form of different movement restrictions for pronominal and full DP subjects. Following the analysis of English locative inversion in Collins (1997), the PP *down the hill* moves to Spec/TP instead of the DP *John* in the sentence in (13b). Subsequently, movement of the full subject DP is blocked (13c). Movement of a pronominal subject, however, is not blocked by a PP in Spec/TP, as shown by the contrast between (13e) and (13f). If we assume that $D^{min/max}$ moves to a head-adjoined position, while a full DP moves to Spec/TP (both triggered by $[\bullet D\bullet]$ on T), then the difference between (13c) and (13f) is simply explained by the different landing positions of the two movement operations.

(13)   Locative inversions in StE

   a.   John came down the hill.

   b.   Down the hill came John.

   c.   * Down the hill John came.

   d.   He came down the hill.

   e.   * Down the hill came he.

   f.   ? Down the hill he came.

A obvious problem of pronominal head movement arises in the face of T-to-C movement with subject-auxiliary inversion in StE and NEE as in (14). Clearly, only the auxiliary moves to C, while the personal pronoun is left in the T domain:

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[12] While it is true that in the adopted system, the ordering of probes on a given head should in principle be variable across varieties, it is possible that feature ordering is universally invariant in cases where some universal hierarchy determines the sequencing of categories (Müller 2020).

[13] A somewhat related idea comes from Wiltschko (1998), who assumes German personal pronouns to be the spell-out of φ-features (AgrD) without any internal structure.

[14] I assume a standard version of c-command (cf. Reinhart 1983; Chomsky 1986), where X c-commands Y iff X does not include Y, Y does not include X and every category that includes X also includes Y. A category X includes a different category Y only if every segment of X dominates Y. This ensures that after head movement $D^{min/max}$ can c-command out of the complex T head to bind its trace.

(14)   a.   [$_C$ Would] they know better?

       b.   * [$_C$ They would] know better?

If we allow for head movement of $D^{min/max}$ to T, the lower T (i.e., the host of the complex head) has to excorporate and move to C. A head movement account that generally allows excorporation comes from Roberts (2010a). However, while the incorporee is free to successively "pass through" complex heads, excorporation of the host (or projecting head) is only possible under pied-piping. This would generate the ungrammatical (14b). According to this account, the highest instance of T in a structure [T [$D^{min/max}$ T]] is attracted because of the A-over-A Principle (cf. Chomsky 1964a, b, 1973; Bresnan 1976) in (15). According to a strict interpretation, A is taken to be a category with the result that it is always the highest instance of a category that is subject to some syntactic operation.

(15)   A-over-A Principle (Chomsky 1973, 235):

      If a transformation applies to a structure or the form [$_\alpha$ …[$_A$ …[$_A$

      …] …] …], where α is a cyclic node, then it must be so interpreted

      as to apply to the higher phrase of the type A.

A closer look at the A-over-A Principle reveals that there are examples where the lower instance of a category is dislocated, such as DP extraction out of a DP (cf. Ross 1967), which seemingly violates a strict interpretation of the A-over-A Principle. However, an alternative reading of the A-over-A Principle is already suggested by Chomsky (1973) and later adopted by Bresnan (1976): The A-over-A Principle can be viewed as prohibiting dislocation of an item that is not the most inclusive one fitting the structural description of an operation. In other words a syntactic object X_2 can be moved even if it is dominated by a syntactic object X_1 of the same category as long as the syntactic operation cannot apply to X_1.

     Returning to T-to-C movement after pronominal head movement, we can say that excorporation of the lower T in a structure [T [$D^{min/max}$ T]] is not prohibited by the A-over-A Principle because the higher T does not fit the structural description of the attracting head C. However with a complex head such as, for example, [T [T Neg]] in (16), T-to-C movement still has to involve pied-piping of the incorporee.[15]

(16)   [$_{CP}$ Hasn't$_i$ [$_{TP}$ John t$_i$ come?]]

Thus, there seems to be a difference between incorporated heads of the extended verbal projection, which can be pied-piped in T-to-C movement, and incorporated pronouns, which cannot (as assumed above). One possible way to distinguish between the different kinds of incorporees is to assume that heads which are part of the clausal spine have [+ V] among their features, while a pronominal $D^{min/max}$ has [− V] (Biberauer et al. 2014; see also Grimshaw 2000).

     Suppose that T-to-C movement is triggered by a feature that can distinguish between [+ V] and [− V] on the attracted head (e.g., with a structure-building feature [•T_{+V}•] or [•+V•]). As a result, a complex head with a [− V] incorporee such as [T [$D^{min/max}$

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[15] I would like to thank the anonymous reviewer who made me aware of this problem and its possible solution.

T]], does not match the description of T-to-C movement, but a complex head with a verbal incorporee, such as [T [T Neg]], does. In the former case, the A-over-A Principle prevents pied-piping, because only the host of the complex head (not the complex head itself) is compatible with the structural description of the operation. In the latter, Neg is pied-piped alongside T, because the complex head involves only [+V] elements.

This derives the correct outputs in (14a) and (16) with subject-auxiliary inversion.[16]

3.1.3 Morphology

I assume Distributed Morphology: Feature bundles are built up and valued in syntax, while morphological exponents are inserted post-syntactically. Crucially, the Subset Principle (Halle 1997) is modified and re-formulated as in (17) so that the most specific exponent with a non-conflicting feature value is inserted into a terminal node.

(17) Subset Principle:
      A Vocabulary item V is chosen for a syntactic context S iff (a) and (b) hold.

   a. Compatibility:
       For all features of V there is a matching feature in S without a conflicting feature value.

   b. V is the most specific Vocabulary item among those that satisfy (17a).

(18) Specificity:
      A Vocabulary item V_i is more specific than an Vocabulary item V_j iff it matches more features of the syntactic context S than V_j.

Although a departure from Halle's (1997) original, the formulation of the Subset Principle in (17a) still ensures compatibility with impoverishment. Suppose a Vocabulary item specified as $V \leftrightarrow [+a,+b]$ and the following possible syntactic contexts:

(19) Hypothetical syntactic contexts:

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[16] A reviewer suggest an alternative account to the one outlined in this section, which I will briefly discuss here. The idea would be that $D^{min/max}$ moves to Spec/TP in the syntax and post-syntactically merges with T via m-merger (Matushansky 2006),. Thus, syntactic T-to-C movement would bleed post-syntactic m-merger, which would circumvent the issue regarding excorporation of T. A drawback to this approach comes in the form of ordering the operations. As we will see in Sect. 3.2, head movement of $D^{min/max}$ to T feeds #-Agree in NEE. This would mean that #-Agree is part of post-syntax (in contrast to π-Agree, which has to apply before any movement in the syntax). However in Standard English, syntactic movement to Spec/TP has to apply after #-Agree (counter-bleeding). If #-Agree was part of the post-syntactic module, this opacity effect could never arise because syntactic movement would always apply early. Modelling m-merger in narrow syntax (Vicente 2007; Gallego 2010) would run into similar timing problems. As already mentioned, m-merger has to feed #-Agree on T. Simultaneously, T-to-C movement triggered by a feature on C has to bleed m-merger (to circumvent excorporation). Putting together the two ordering statements, this would mean that T-to-C movement triggered by C has to apply before #-Agree triggered by T. Assuming a cyclic syntax, however, C is merged only after T discharged all its features. Thus, syntactic operations triggered by C (i.e., T-to-C) cannot apply before syntactic operations triggered by T (i.e., #-Agree). In the light of these issues, I do not think that an m-merger approach would constitute an improvement to the existing account.

  a. S_1[+a,+b]   c. S_3[+a]

  b. S_2[+a,− b]   d. S_4[+a,b:□]

Context S_1 is fully specified and bears matching features for the features on *V*; thus *V* can be inserted. Context S_2, on the other hand, has a conflicting value on feature *b*; therefore, *V* cannot be inserted. Likewise, *V* cannot be inserted into context S_3, as feature *b* is deleted by impoverishment (i.e., there is no matching feature *b* in S_3). Crucially, however, S_4 has no value for *b*, while the feature is still present in the context; thus, *V* can be inserted. In other words: The feature has to be present in the context, but it can be unvalued. As will become clear in the analysis in Sect. 3.3.2 below, S_4 is the relevant context for the NSR pattern.

Preminger (2014) argues that a probe can be left unvalued without causing the derivation to crash. In contrast to Preminger's assumptions about Kichean, NEE probes are, crucially, not relativised (i.e., they do not have an expected value). This allows the insertion of a specific exponent instead of falling back on a "default" option if a probe is left unvalued because Agree cannot apply.

The Vocabulary items of English verbal inflection on present-tense regular verbs are depicted in (20). 3SG exponent -*s* is specified for [+3,− pl], while Ø is the elsewhere case (see Halle and Marantz 1993).

(20)   English present tense Vocabulary items:
    -s   ↔   [+3,− pl]   *3sg pres*
    -Ø   ↔   [ ]   *elsewhere*

Consider the formulation of the Subset Principle: A terminal node with the person feature valued as [+3] and the number feature not valued ([# : □]) has -*s* as the most specific Vocabulary item, as the value of the number feature does not conflict. If the terminal node is specified for [+3,+pl], the elsewhere form -Ø is inserted.

3.2 Feature ordering on T in StE and NEE

The current proposal draws on ordering the features on T, which in turn decide the order of application of elementary operations. While in the StE ordering, person and number Agree (i.e., full agreement) happen before merging the subject DP into the specifier of T (21a), the NEE ordering in (21b) places one Agree operation before and another one after (Internal) Merge, respectively (hence, discontinuous φ-feature Agree).

(21)   a. Order of operations on T in StE:
        [∗π∗] ≻ [∗#∗] ≻ [•D•]

      b. Order of operations on T in NEE:
        [∗π∗] ≻ [•D•] ≻ [∗#∗]

In the case of the NEE ordering, movement of a (plural) full DP subject to Spec/TP bleeds #-Agree, leaving the number feature on T unvalued. After post-syntactic Vocabulary insertion, verbal -*s* arises. Given the StE ordering, however, T is able to Agree

with the DP in number before the subject moves into Spec/TP. Thus, agreement variation between StE and NEE is due to the ordering of features triggering syntactic operations and is, in consequence, determined by the syntax and not a morphological coincidence. The existence of a variety that exhibits verbal -*s* is expected, given the split-up of φ-Agree and the need to determine a sequence of application of elementary operations.

Variability between verbal -*s* and canonical agreement in the NECTE2 data can be explained by the possibility of both orderings for NEE speakers, whereby the standard ordering (21a) is becoming increasingly prevalent. (See also Cole 2008 for diachronic data on verbal -*s* in NEE.) Thus, I propose that a construction of two coordinated TPs (with and without verbal -*s*) such as *some do and some doesn't* (Pietsch 2005b, 178) involves code-switching (cf. Kroch 1989, 1994) between the orderings, rather than two different instances of T in a single grammar.

3.3 Analysis

3.3.1 Standard English derivation

Given the StE ordering of features on T (21a) with π- and #-Agree applying in immediate succession, the derivation of (canonical) StE agreement in clauses with a non-pronominal 3PL subject is unproblematic. First, T probes into its c-command domain for [∗π∗] and finds the subject DP; the feature is valued as [+3] via π-Agree (22a). Secondly, T probes for [∗#∗] under c-command and values this feature as [+pl] after undergoing #-Agree with the subject DP (22b). In a third step (22c), the subject DP moves into Spec/TP (Internal Merge) and satisfies the [•D•]-feature on T (i.e., the EPP feature). Given that both Agree operations are successful, the elsewhere exponent −∅ is inserted into T during morphology (22d).

(22)   Derivation of canonical agreement in StE:

c.   TP

d. $T[\pi : +3, \# : +pl] \to \emptyset$

DP_i T'

T   vP

$\begin{bmatrix} *\pi* \\ *\#* \\ \bullet D\bullet \end{bmatrix}$ t_i v'

③

v   VP
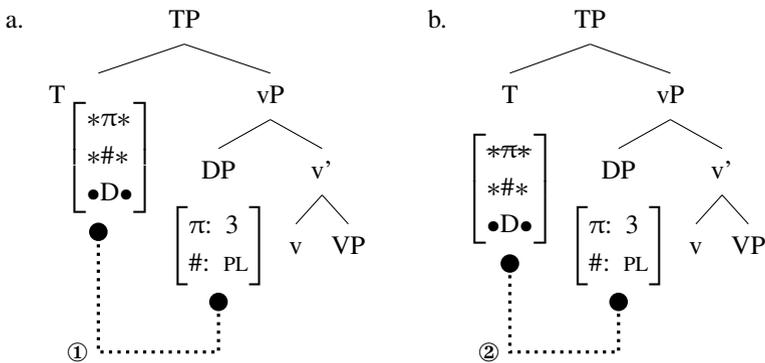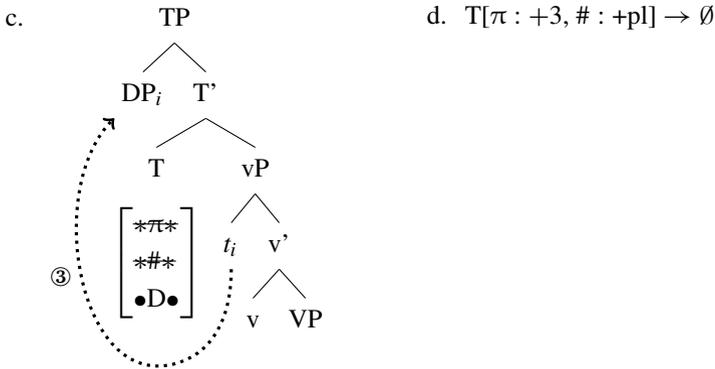
3.3.2 North Eastern English derivations

In contrast to that, clauses with verbal -*s* and a 3PL full-DP subject, such as (3a) (repeated here as (23)), are derived as follows.

(23)   (=3a)

Two of these new skates weighs half of the one I've got.   [NECTE2]

In NEE, the structure-building feature [•D•] is ordered before the number probe feature [∗#∗] (21b). After T probes for person and ensuing π-Agree with the subject DP under c-command values T's [∗π∗]-feature as [+3] (24a), the DP moves into the specifier of TP, satisfying the [•D•]-feature on T (24b). Subsequently, T probes for its number feature [∗#∗], but cannot find the subject DP as it previously moved out of T's c-command domain. Consequently, #-Agree is not successful (24c), leaving the (not relativised) [∗#∗]-feature on T unvalued. Thus, movement bleeds number agreement.[17] Given the modification of the Subset Principle, verbal -*s* can be inserted into the terminal node T in post-syntactic morphology, as T has no value for its number feature (24d).

---

[17] An implicit assumption is that, after movement, traces (or lower copies) become inactive and are not visible for Agree. Only the head of a movement chain is a visible goal for an agreement probe. This is not a new insight, but has to be assumed whenever movement bleeds downward agreement (cf. Chomsky 2000, Rezac 2004, Anand and Nevins 2006 and Georgi 2014).

(24)   Derivation of verbal *-s* in NEE:

a.

$$
\begin{array}{c}
\text{TP} \\
\wedge \\
\text{T} \quad\quad \text{vP}
\end{array}
$$

T:
$$
\left[\begin{array}{c} *\pi* \\ \bullet D\bullet \\ *\#* \end{array}\right]
$$

DP:
$$
\left[\begin{array}{c} \pi\colon 3 \\ \#\colon \text{PL} \end{array}\right]
$$

v' : v   VP

①

b.

$$
\begin{array}{c}
\text{TP} \\
\wedge \\
\text{DP}_i \quad \text{T'}
\end{array}
$$

T:
$$
\left[\begin{array}{c} *\pi* \\ \bullet D\bullet \\ *\#* \end{array}\right]
$$

vP : t_i v' : v   VP

②

c.

$$
\begin{array}{c}
\text{TP} \\
\wedge \\
\text{DP}_i \quad \text{T'}
\end{array}
$$

DP:
$$
\left[\begin{array}{c} \pi\colon 3 \\ \#\colon \text{PL} \end{array}\right]
$$

T:
$$
\left[\begin{array}{c} *\pi* \\ \bullet \cancel{D} \bullet \\ *\#* \end{array}\right]
$$

vP : t_i v' : v   VP

③ ✗

d. $T[\pi : +3, \# : \square] \rightarrow \textit{-s}$
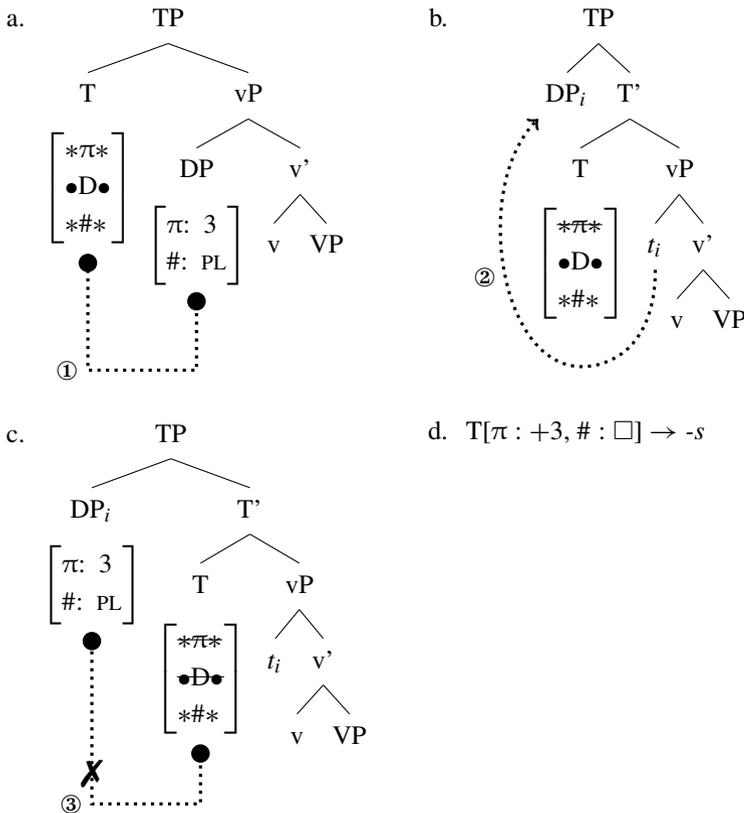
On the other hand, in clauses with non-3SG pronominal subjects, such as (25), verbal *-s* is not permitted according to the NSR.

(25)   They weigh like half of the one I've got.

As with the verbal *-s* derivation, T probes for person and triggers π-Agree with the subject under c-command, again valuing its [$*\pi*$]-feature as [+3] (26a). In the next step, the assumptions about head movement of pronouns as $D^{min/max}$ categories (outlined in Sect. 3.1.2) come into play: The pronoun adjoins to T via head movement, satisfying the [$\bullet D\bullet$]-feature on T (26b). Since T is the closer landing site (compared to Spec/TP), head movement is the shortest possible movement step (Richards 1999, 2001).[18] Diverging from the previous derivation in (24), the subject pronoun is still

---

[18] Since D is not a complement of T, this movement step would technically violate the Head Movement Constraint (HMC; Travis 1984). However, this is unproblematic as D is still the nearest head to T and thus, minimality is observed. Moreover, e.g. Rivero (1994) and Roberts (1994, 2010a) provide approaches to head movement without incorporating the HMC at all. Related to this issue, a reviewer brings up the issue of modal and aspectual constructions, where a pronominal subject has to cross over intervening heads like *must* and *have* in the examples in (i), which would also violate the HMC.

 (i)   a.   They must weigh like half of the one I've got.

in the c-command domain of T. Thus, #-probing and subsequent Agree is still possible, valuing the [∗#∗]-feature on T as [+pl] (26c). In post-syntactic morphology, the elsewhere form -Ø is inserted into T (26d).

(26) Derivation with pronominal subjects in NEE:

a.
$$\begin{array}{c} \text{TP} \\ \text{T} \quad \text{vP} \end{array}$$

T: $\begin{bmatrix} *\pi* \\ \bullet D \bullet \\ *\#* \end{bmatrix}$

vP: D $\begin{bmatrix} \pi\text{: }3 \\ \#\text{: PL} \end{bmatrix}$ v' (v VP)

①

b.
TP → T vP; T: D_i T t_i v'

$\begin{bmatrix} *\pi* \\ \bullet D \bullet \\ *\#* \end{bmatrix}$

②

c.
TP → T vP; T: D_i T; vP: t_i v' (v VP)

D_i: $\begin{bmatrix} \pi\text{: }3 \\ \#\text{: PL} \end{bmatrix}$ T: $\begin{bmatrix} *\pi* \\ \bullet D \bullet \\ *\#* \end{bmatrix}$

③

d. $T[\pi : +3, \# : +pl] \rightarrow$ -Ø
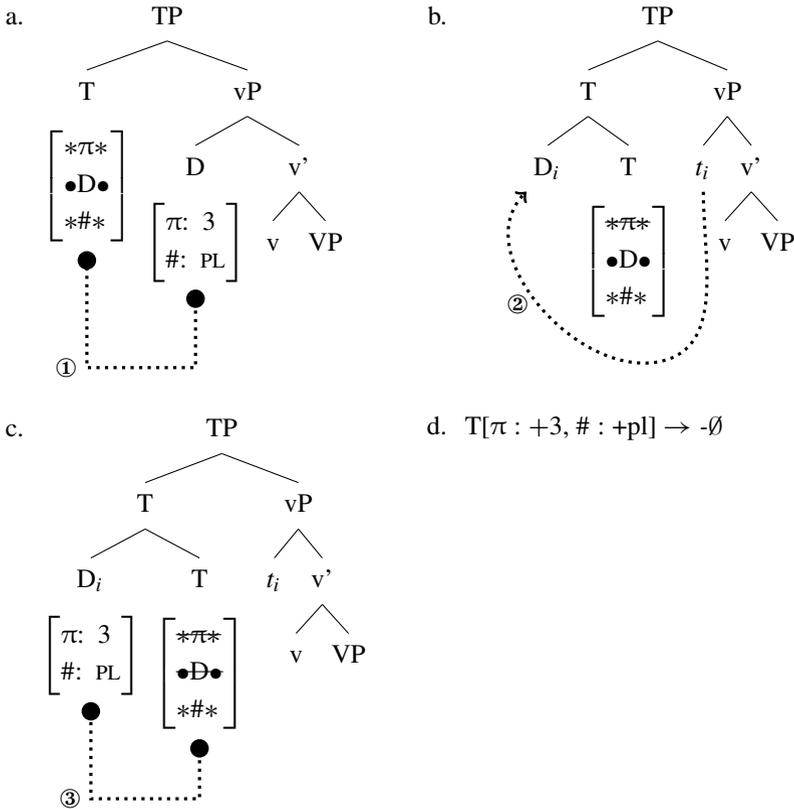
3.3.3 Verbal -s with *be*

The same analysis as in (24) can also be applied to cases of verbal -s with *be* in present tense as in (3b), repeated here as (27a) and in past tense as in (3c), repeated here as (27b).

---

b. The have weighed like half of the one I've got.

Movement of $D^{min/max}$ to T is driven by a [•D•] on T and only concludes in a head-adjoined position—and not in Spec/TP—because $D^{min/max}$ has the relevant properties. Minimality of this head movement operation is still observed even if $D^{min/max}$ crosses over potentially intervening heads: Only $D^{min/max}$ fits the structural description of the operation and, similarly, it is T (not some intervening head) that attracts $D^{min/max}$.

(27) (=3b,c)

    a. Their wages *is* out of this world.   [NECTE2]

    b. All of our costumes *was* just getting dragged off and we were all
        fighting and stuff.   [NECTE2]

After successful π-Agree and failed #-Agree of T with a 3PL subject DP, T is valued
as [π : +3, # : □] in both present and past tense clauses with *be*. Since the [∗#∗]-
feature value is not conflicting, the exponent *is* is inserted in present tense clauses
as (27a), while *was* is inserted in the past tense case (27b). On the other hand, #-
Agree of T with a pronominal non-3SG subject, such as in the second clause of (27b)
(*we were …*), is successful as the pronoun is still within the c-command domain of
T after Internal Merge. Thus, T receives a value for its [∗#∗]-feature and canonical
agreement morphology can arise after Vocabulary insertion. The Vocabulary items of
English present and past tense *be* are depicted in (28) and (29), respectively.[19]

(28) English present tense *be* Vocabulary items:

    is   ↔   [+3,− pl]   *3sg pres*
    am   ↔   [+1,− pl]   *1sg pres*
    are ↔   [ ]   *elsewhere*

(29) English past tense *be* Vocabulary items:

    was   ↔   [− 2,− pl]   *1/3sg past*
    were ↔   [ ]   *elsewhere*

In addition, this system also captures the fact that NEE does not exhibit *was/were*
variation (i.e., the variable occurrence of *was* with 1PL, 2SG and 2PL but crucially
not with 3PL subjects in some varieties of English; c.f. Adger 2006; Adger and Smith
2010) as the pronominal subjects are still in the c-command domain of T after Internal
Merge and thus available for #-probing.

3.3.4 Verbal *-s* in relative clauses

The proposal extends naturally to instances of verbal *-s* in relative clauses with an
external plural DP as in (8) (repeated here as (30)) under the assumption that the
head noun is first merged inside the relative clause and raises into a external position
(so-called *head raising*: Vergnaud 1974; Kayne 1994; Bianchi 2000).[20]

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[19] The Vocabulary items in (28) and (29) seem to predict that complex 1PL subjects would trigger *be* to spell
out as *am* and *was*, respectively. There is, however, only limited data of complex pronoun-noun subjects
in the NECTE2 corpus, all with canonical agreement (n = 2). Moreover, impoverishment rules could be put
into effect to ensure that *we linguists are/were* arises even with the NEE ordering:

(i) a. +1 → Ø / T[#:□, __]
    b. − 2 → Ø / T[+1, #□, __]

[20] I would like to thank Jim Wood, who points out that this would also apply given a null operator analysis
to relative clauses (cf. Chomsky 1980; Browning 1987) under the assumption that the null operator moves
as a phrase through Spec/TP to Spec/CP.

(30) (=8)

And these clubs what*'s* paying this well they must be making the
money to pay it out. [NECTE2]

As the head noun is generated inside the relative clause, out of which it moves during syntax, local relations and thus agreement can be established. To put it differently: If an external nominal expression is generated inside the CP, it is linked to CP-internal positions. Additionally, the head noun moves inside of the DP into the specifier position (Alexiadou et al. 2000). The respective structure of such an expression is given in (31).[21]

(31) [$_{DP}$ these [$_{CP}$ [$_{DP}$ [$_{NP}$ clubs]$_k$ [$_{DP}$ what t_k]]$_i$ [$_{TP}$ is [$_{vP}$ t_i paying this well]]]]]

Following the head raising account, the analysis of verbal *-s* in relative clauses is the same as for the regular case in (24): Given the ordering of features on T (i.e., [∗π∗] ≻ [•D•] ≻ [∗#∗]), the head noun first agrees with T for person before it moves out of T's c-command domain. The subsequent number probing is unsuccessful, leaving the number value on T empty. This results in the insertion of exponent *-s* in post-syntactic morphology.[22]

3.4 Adjacency condition

In contrast to contemporary varieties, historical NSR varieties exhibit an additional adjacency condition (i.e., the Position-of-Subject Constraint in (2b), here repeated as (32)), according to which verbal *-s* can co-occur with non-3SG pronouns if they are not adjacent to the verb. Examples of PSC-obeying constructions are given in (33) and (34).[23] Although the PSC has been argued not to operate in contemporary NSR

---

[21] Bianchi (2000) proposes that only the nominal moves to Spec/CP. The relative DP is raised to the specifier of a functional projection below C (here XP) followed by extraction of the NP into Spec/CP:

(i) [$_{DP}$ these [$_{CP}$ [$_{NP}$ clubs]$_k$ [C [$_{XP}$ [$_{DP}$ what t_k]$_i$ [X [$_{TP}$ is [$_{vP}$ t_i paying this well]]]]]]]]

[22] An interesting issue arises regarding relative clauses that attach to personal pronouns, e.g. in clefts. Assuming that clefts have the same structure as relative clauses (except for that CP is the complement of *be* instead of D; Kayne 1994, 153), their derivation should parallel the head raising analysis of relative clauses. As a consequence, verbal *-s* should arise with 3PL personal pronouns because #-Agree is bled by the movement of the complex DP. This predicts the forms in (iv). Note, however, that there are no instances of verbal *-s* in clefts (or relative clauses in general) with 3PL pronouns in the NECTE2 corpus ($N = 0$), which could be due to the rarity of the phenomenon.

(i) Clefts with personal pronouns and NEE ordering:

  a. It is you who *are* mistaken!
  b. *It is you who *is* mistaken!
  c. *It is they who *are* mistaken!
  d. It is they who *is* mistaken!

[23] Indicated material in these examples stems from the following corpora: *Northern Ireland Transcribed Corpus of Speech* (NITCS; Kirk 1991) with data collected from rural Northern Irish English speakers in the 1970s and *Survey of English Dialects* (SED; Orton and Halliday 1963) with data collected from rural speakers in the 1950s.

varieties (cf. Sect. 2.2 as well as Cole 2008; Childs 2012; Buchstaller et al. 2013), I will discuss these examples briefly in what follows.

(32) Position-of-Subject Constraint (PSC):   =(2b)
        Verbal *-s* can occur with personal pronouns as the subject if the subject and verb are non-adjacent.

(33) Traditional NSR pattern with PSC (Childs 2012, 320):
        a. They peel them and *boils* them.   [SED]
        b. They never *sleeps* inside doors.

(34) Traditional NSR pattern with PSC (Pietsch 2005b, 9, 174):
        a. They gang and never *speaks*.   [SED]
        b. You never *was* up that Fivemiletown Road?   [NITCS]

The examples in (33) and (34) can be grouped into two different environments that seem to allow verbal *-s*: sentences with coordinated verbs whereby the second verb shows verbal *-s* (33a, 34a) and adverb intervention between a pronominal subject and the verb (33b, 34b). Differentiating between two different PSC environments reflects the fact that they can occur independently from each other in different varieties. According to Pietsch (2005a), verbal *-s* with adverb intervention is only found in older varieties, while verbal *-s* with coordinated verbs is typical in conservative varieties. In (35), we see that coordination can license verbal *-s* while adverb intervention (*you just cut*) does not trigger verbal *-s*.

(35) Verbal *-s* with coordination (Pietsch 2005a, 145):
        And then you just *cut* down, and *makes* the shape of the turf.   [NITCS]

Concerning the adjacency condition, there are consequently (at least) three different non-standard varieties: those with verbal *-s* with adverb intervention and coordination (i.e., the oldest varieties), those with verbal *-s* with coordination but without adverb intervention (i.e., modern conservative varieties, according to Pietsch 2005a, b) and those without the adjacency condition altogether (i.e., contemporary NEE). I take this as an argument against a unifying analysis of sentences like (33a, 34a) and (33b, 34b) only on the basis of the surface configuration of the pronominal subject being non-adjacent to the verb.

   The first group of PSC-observing environments comprises coordination constructions such as (33a) and (34a). For the sentence in (33a), I assume a structure of coordinated TPs (rather than vPs), as I take the distinct inflections (-Ø on the first and the *-s* on the second verb) as indicators for the presence of two separate T projections:[24]

(36) [$_{\&P}$ [$_{TP}$ They peel them] [$_{\&'}$ [$_{\&}$ and] [$_{TP}$ *ec* boils them]]]

---

[24] I follow Munn (1987), Zoerner (1995) and Weisser (2015), i.a. and assume that coordination structures are asymmetric: The *&*-head takes one conjunct as its specifier and the other as its complement. In turn, this rules out a structure whereby coordinated T' nodes share one and the same specifier (which would make the assumption of a null subject in the second conjunct obsolete), as it would be feasible under an adjunction approach to coordination.

I take the subject of the lower TP to be an empty category (*ec*). Following Haegeman (1997), null subjects in spoken English are not the result of *pro* drop or topic drop, but rather antecedentless empty categories associated with the leftmost specifier of the clause, here Spec/TP (see also Rizzi 1994; Haegeman and Ihsane 1999; Bailey 2011). Thus, in contrast to $D^{min/max}$ pronouns, null subjects move directly into Spec/TP and are not able to head-adjoin to T. As a consequence of movement to Spec/TP, full agreement is not possible, as Merge again bleeds #-Agree. This analysis follows the same underlying principle as the basic NSR derivations in Sect. 3.3.2: Under the NEE feature ordering, verbal -*s* is possible except for if the subject head-adjoins to T and both φ-probes on T can be valued. However, if head movement to T is blocked by the nature of the moved item (either being a DP or an empty category), Internal Merge of the subject to Spec/TP bleeds #-Agree.

Let us now turn to the second group of examples where an adverb intervenes between the pronominal subject and the main verb such as in (33b) and (34b).[25] In principle, there are two possibilities why T cannot undergo #-Agree with the subject. Up until now, the idea was that the subject is too high (in Spec/TP) at the point of #-Agree (Sect. 3.3). The second possibility is that the probe is too low in the structure for successful #-Agree. I would like to suggest the latter option for the adverb intervention effect: T itself is dislocated before #-Agree, leaving the subject outside of T's c-command domain.

Suppose that in addition to the syntactic operations Merge and Agree, there are two additional interface-oriented operations that are relevant for the derivations: *Lowering* T to v in order to get tense information to the main verb (Embick and Noyer 2001) and *Late Adjunction* of adverbs after a phase is complete (Lebeaux 1991; Stepanov 2001). Arguably, these operations are needed in the grammar independently of the phenomenon discussed in this paper. Under the assumption that Generalised Lowering (Stojković 2019) comprises Lowering and Local dislocation as a single operation and, thus, needs adjacency, Adjunction to vP should always follow Lowering of T to v (cf. Bobaljik 1995; Ochi 1999). With respect to syntactic operations, Merge triggered by [●D●] on T must not follow Lowering: If T with an undischarged [●D●]-feature would lower into v, (Internal) Merge would be prevented by strict cyclicity and the derivation would crash due to the open structure-building feature. However, as shown, by e.g., Preminger (2014) and assumed throughout this paper, probing features (here [∗#∗]) can be left unvalued without crashing the derivation. Given these assumptions, four ordering statements remain from a possible 24: ([∗π∗] is omitted here under the premise that person Agree is always triggered first in the relevant varieties; see also 3.5.)

(37)   Possible ordering statements for the adjacency condition

     a.   [∗#∗] ≻ [●D●] ≻ Lowering ≻ Adjunction

     b.   [●D●] ≻ [∗#∗] ≻ Lowering ≻ Adjunction

---

[25] Note that Pietsch (2005b, 9–10) excludes these examples from the NSR as he links them to the phenomenon of habitual -*s*, noticing that most of the intervening adverbs denote some sense of habitualness. The adverb effect would, therefore, be excluded from the NSR. Following this idea, -*s* would be reanalysed to correspond to some feature [+HABIL], and in varieties with both the NSR and the suspected habitual -*s*, we would deal with a case of accidental homophony.

    c. [●D●] ≻ Lowering ≻ [∗#∗] ≻ Adjunction

    d. [●D●] ≻ Lowering ≻ Adjunction ≻ [∗#∗]

In (37a,b), no variation with respect to Lowering can arise: Only after the syntactic operations on T are carried out, T is lowered to v under adjacency and the adverb is adjoined to vP. (37a) is the order of operations in Standard English where #-Agree applies before Merge. (37b) generates contemporary North Eastern English without an active adjacency condition, as discussed throughout this paper. The ordering statements in (37c,d), on the other hand, derive grammars with an intact adjacency condition involving adverb intervention. Lowering T to v bleeds successful #-Agree, since the pronominal subject is no longer in the c-command domain of T.[26]

Let us address the remaining question: Why is #-Agree not bled by Lowering if no adverb intervenes between the subject and the main verb in varieties with an active adjacency condition? If Lowering is always ordered before #-Agree in these varieties (37c,d), whether or not an adverb is adjoined to vP after Lowering should not have an effect on #-agreement. In other words: These varieties should have the ordering in (37c,d) with adverbs present and (37b) without.

It is conceivable that in the unmarked case, interface-oriented operations (Lowering and Adjunction) should follow syntactic processes (Merge and Agree). Suppose, however, that two additional soft constraints influence the order of operations: (i) Late adjunction should be triggered by an active phase head (see Müller 2010 for the idea that operations should always be triggered by active phase heads) and (ii) probing features ([∗F∗]) should be saturated but can be left unvalued (cf. Preminger 2014). By assumption, a head is active if it has undischarged structure-building or, crucially in this case, probing features (Müller 2010).

Thus without adverbs adjoined, (37b) constitutes the order of operations in NSR varieties both with and without the adjacency condition active, since (37c,d) would lead to an unvalued probe and therefore violate the second constraint. (The first constraint cannot be violated as there is no Adjunction step in the derivation.)

Meanwhile, if adverbs are adjoined to vP during the derivation, the ranking of the soft constraints determines whether the adjacency condition will be observed or not. In grammars where constraint (i) is given more weight to it, T with an undischarged probing feature is lowered to v and creates an active head for Adjunction (ordering statements (37c,d)). Thus, constraint (ii) against undischarged probing features has to be violated, so that constraint (i) against operations on inactive heads is satisfied. If #-Agree would be ordered before Lowering, the lowered head would be inactive and Late adjunction to an inactive head would violate the higher-ranked constraint (i). On the other hand, in a grammar that ranks constraint (ii) higher, #-Agree is triggered before Lowering (and subsequent Adjunction) to value [∗#∗] on T (ordering statement (37b)). In this case, the adverb is adjoined to an inactive v(P) (i.e., without undischarged features), which violates constraint (i) in order to satisfy constraint (ii).[27]

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[26] Similar to the issue with T-to-C movement in Sect. 3.1.2, we have to assume that Lowering only applies to the lower T in a structure [T [$D^{min/max}$ T]] and not to the complex head as the complex head with the incorporated $D^{min/max}$ does not fit the structural description of the operation.

[27] In StE the ranking of the soft constraints does not matter, as [∗#∗] is valued before [●D●] is discharged and T with an open [●D●]-feature cannot be lowered without crashing the derivation.

Varieties with an active adjacency condition can, thus, be captured by extending the main proposal (i.e., different orderings of operations derive agreement variation; see Sect. 3.2) by two independently needed operations, namely Lowering and Late Adjuntion. Moreover, these varieties force a blending of strictly syntactic and interface-oriented operations (cf. Martinović 2019). It could be speculated that this blending is generally more marked than a strict separation of syntactic and non-syntactic operations. As a result, varieties with the adjacency condition in place are in decline.

Needless to say, these remarks are tentative; but it should be clear that a conservative extension of the ordering approach to varieties incorporating the adjacency condition is within reach.

3.5 Alternative feature ordering

So far, I have shown that ordering Merge and the two Agree operations together with a head-movement account of pronoun movement derives the basic pattern of the Northern Subject Rule in contemporary North Eastern English, namely the split between verbal -s triggered by 3PL full DP subjects and canonical agreement triggered by pronominal subjects. Moreover, the analysis can be extended to verbal -s in relative clauses. To this effect, I argued for two different feature orderings on T to be the reason for the different agreement patterns in StE and NEE:

(38) (=21)

     a. Order of operations on T in StE:
        $[*\pi*] \succ [*\#*] \succ [\bullet D\bullet]$

     b. Order of operations on T in NEE:
        $[*\pi*] \succ [\bullet D\bullet] \succ [*\#*]$

Given the assumption that $[*\pi*]$ is universally ordered before $[*\#*]$ (Béjar and Rezac 2003; Coon and Keine 2021), there should be a third possible feature order on T in addition to the sequences in (38), namely $[\bullet D\bullet] \succ [*\pi*] \succ [*\#*]$. According to this ordering, T would not receive any φ-values (i.e., T[π : □, # : □]) during the derivation as movement of a full DP subject would always bleed both instances of Agree. Verbal -s would therefore arise with every full DP subject after Vocabulary insertion. However, pronominal subjects would still be able to agree with T as they do not move out of T's c-command domain.[28] Thus, it would derive the same data as the NEE feature order with respect to 3PL full DP subject vs. pronominal subjects.[29]

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[28] If pronouns do not head-adjoin to T but rather move to Spec/TP directly, verbal -s would arise with any subject given this ordering of features on T. This potentially could derive a pattern of generalised -s over all persons, which is attested in some varieties of English (Kortmann and Szmrecsanyi 2004; see also Anderwald 2008 for South-Eastern English).

[29] A possible way to test the two ordering statements would be on the basis of complex DP subjects. Under the alternative order, complex DPs with a 1st or 2nd person pronoun of the type *we linguists* or *you idiots* should also be able to trigger verbal -s since they would not transmit a person value to T as π-Agree is bled by movement to Spec/TP. In contrast, suppose the NEE ordering $[*\pi*] \succ [\bullet D\bullet] \succ [*\#*]$ (38b), $[*\pi*]$ on T is already valued for [+1] or [+2] via Agree before the complex DP moves to Spec/TP. As a result, -s cannot be inserted post-syntactically. Unfortunately, there is too little data to decide between the ordering statements on the basis of NECTE2 with only two tokens of complex pronoun-noun subjects throughout

4 Previous and alternative accounts

In the previous section, I presented an analysis of the Northern Subject Rule on the basis of ordering Merge and two instances of Agree that captures the corpus data laid out in Sect. 2.2: Movement of 3PL full DP subjects to Spec/TP bleeds #-Agree resulting in verbal -s, while pronominal subjects head-adjoin to T allowing full agreement. Moreover, I have shown that the same underlying principle of ordered operations can also account for varieties that allow verbal -s with pronominal subjects in environments attributed to the so-called Position-of-Subject Constraint. In the remainder of this section, I will discuss alternative approaches to the NSR in a number of different varieties and show that the proposal made in this paper can extend to the range of NSR variation more naturally.

4.1 A configurational approach

A structural analysis of NSR effects ("singular concord") in Belfast English is proposed by Henry (1995). Following the split INFL hypothesis (Pollock 1989; Chomsky 1993), two subject positions are assumed: Spec/Agr$_S$P and Spec/TP, where only the former allows nominative case assignment, φ-feature checking and consequently full agreement. Subjects in the latter position are assigned non-nominative (or "default") case, φ-features are not checked and default morphology (-s) surfaces on the verb, resulting in non-agreement (39a).[30] Optional head-feature strength on Agr$_S$ determined through parameter setting accounts for variability: If the head feature is strong, the subject raises to Spec/Agr$_S$P; if the head feature is weak, the subject remains in Spec/TP. Since personal pronouns show nominative case overtly, they are forced into Spec/Agr$_S$P to check nominative case and, therefore, trigger full agreement with the verb (39b).[31]

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the corpus. Moreover, neither Cole (2008), Childs (2012) nor Buchstaller et al. (2013) test subjects of the *we linguists* type in their respective studies.

[30] Tortora and den Dikken (2010) further extend this approach for their analysis of verbal -s in Appalachian English and postulate a third possible subject position: Spec/SubjectP. de Haas and Kemenade (2015) also base their analysis of the NSR in Middle English on differential subject positions.

[31] A potential issue involves the assumed structure of functional projections, as the existence of Agr$_S$P (being part of split INFL) in Modern English can be questioned. (Multiple subject positions are argued to have been lost at some point after the Middle English stage (de Haas 2011).) According to Bobaljik and Thráinsson (1998), the split INFL parameter is connected to V-to-T movement (lexical verbs must rise out of V because feature checking between T and V is blocked by Agr$_O$) and correlated syntactic phenomena, such as object shift and transitive expletive constructions, which both StE and NEE lack (see also and Alexiadou and Fanselow 2002).

(39) a.

Agr_S P
  TP
DP   T′
their   T   VP
wages   is
          out of
          this world

b.

Agr_S P
DP   Agr_S′
we   Agr_S   TP
            T   VP
          were
                all fighting
                and stuff
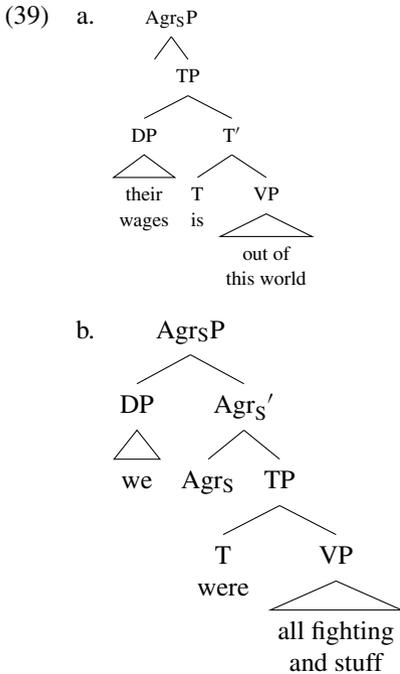
According to this approach, verbal *-s* cannot arise in subject-verb inversion contexts, as T-to-C would include head movement to Agr_S and, thus, trigger agreement (Henry 1995, 42–43). However, Pietsch (2005b, 17) argues that subject-verb inversion is a favourable context for verbal *-s* at least in some varieties (including Northern Irish English data, which is also the variety in question in Henry 1995). Despite this kind of data being not attested in the NECTE2 corpus, the analysis in Sect. 3.3 can easily be extended to verbal *-s* with subject-auxiliary inversion and full DP subjects, as T-to-C movement would apply only after failed #-Agree.

Although Henry's (1995) analysis was not modelled to account for verbal *-s* varieties with an intact adjacency condition, an extension to such varieties would, nevertheless, run into difficulties. According to Henry (1995, 33), pronouns must check nominative case overtly during syntax and can do so only in Spec/Agr_S. Without further stipulations, this would exclude the possibility of verbal *-s* to ever arise with pronominal subjects even if they are non-adjacent to the verb, because verbal *-s* can only arise if the subject is in Spec/TP during syntax.

A comment has to be made about similarities between the proposal made in Sect. 3.3 and Henry's (1995) analysis. Both accounts make use of different positions for subjects based on whether or not they are personal pronouns. According to Henry (1995), pronouns have to move to Spec/Agr_S P where they trigger full agreement with the verb, while lexical subjects remain in Spec/TP and verbal *-s* occurs. In varieties without verbal *-s*, every subject moves to Spec/Agr_S P and triggers full agreement. Agreement variation is, hence, due to configurational differences between the two subject positions. In the proposal argued for in the present paper (Sect. 3.2), pronominal subjects move to a position adjacent to T, while lexical subjects move to Spec/TP. The two

different subject positions follow from different properties of full DP subjects and pronominal $D^{min/max}$ subjects (Sect. 3.1.2). The two accounts diverge with respect to variation: According to the present paper, agreement variation is due to the interaction between movement and agreement. In varieties with verbal *-s*, movement of the lexical subject bleeds full agreement (pronominal subjects are still in an agreement position after movement). In Standard English on the other hand, agreement is counter-bled by subsequent subject movement (i.e., movement is triggered too late to bleed #-agreement). Thus, variation between varieties as conceived in this paper is not configurational but algorithmic. Agreement variation is derived by the necessity to order features that trigger elementary operations on a given head (cf. Heck and Müller 2007; Müller 2009; Georgi 2014, 2017). The relative order between movement and number agreement triggered by T results in variation between Standard English and North Eastern English with respect to verbal *-s*.

4.2 A lexical approach

Adger and Smith (2010) argue for a feature-based approach to agreement variation in Buckie English (a local dialect in north-eastern Scotland), involving both *was/were* variation, as well as verbal *-s*. Variability is accounted for by the random choice between different lexical items (including functional heads) of the same category (i.e., "Combinatorial Variability"). Assuming the lexicon contains two lexical items of the same functional category with different uninterpretable features, namely X_1 [uF_1] and X_2 [uF_2], the selection of either X_1 or X_2 in the numeration will determine which kind of feature (uF_1 or uF_2) is used for establishing an agreement chain. Depending on the features used to establish the relation, different morphological forms are mapped onto the head. As the interpretable features in both possible agreement chains would be the same, the meaning of the chain would also not change (see Adger and Smith 2005; Adger 2006).

According to this approach, lexical items are generated by an algorithm seeking maximal generalisations (i.e., the items with the fewest features). First, lexical items with only one feature are generated and their usability is assessed. If it is not deemed satisfactory (e.g., because there are several forms mapping to one item), two-feature items are generated and recursed over. This algorithm, outlined in (40), is a process of establishing a speaker's lexicon (Adger 2006, 517–518).

(40)   Adger and Smith (2010, 1111):
       Seek maximal generalization by
       a) Generating all n-feature lexical items, n = 1
       b) Mapping features onto forms and rejecting optionality (a given
       feature bundle must always match to only one form)
       c) Rejecting synonymy
       d) Minimizing lexicon, recursing over n-feature n = n + 1

In the case of verbal *-s* in Buckie English, a further [pronominal: ±] feature on D has to be postulated, to which T has to be sensitive in addition to φ-features. Applying the algorithm in (40) thus leads to the lexical items for T (with their morphological

form) in (41). Out of this pool of variants, a lexical item is randomly chosen as the input of the derivation. The feature bundles on T after Agree with a 3PL subject that are relevant for verbal *-s* are depicted in (42).

(41)   Adger and Smith (2010, 1125):

     a.   [singular:+, participant:−] → -s

     b.   [singular:−] → -Ø

     c.   [participant:+] → -Ø

     d.   [pronominal:−] → -s

(42)   Adger and Smith (2010, 1125):

     a.   T[participant: −, singular: −, pronominal: +]: e.g. *they* → -Ø

     b.   T[participant: −, singular: −, pronominal: −]: e.g. *the men* → 50/50 -Ø & -s

Adger and Smith (2010, 1125) conclude that combinatorial variability predicts full plural DP subjects to trigger both -Ø and verbal *-s* in equal amounts (42b), as the relevant mappings of features to morphological form are either (41b) or (41d). In the Buckie corpus, the frequency of occurrence of verbal *-s* with such subjects is 58% (choice of form is claimed to also be dependent on other factors), which is taken as support for the proposed system (the expected frequency is 50%). Adger and Smith (2010), thus, predict the right relative frequency of verbal *-s* with 3pl full DP subjects in Buckie English.[32]

Crucially, the analysis requires the stipulation of a further Agree probe on T sensitive to a pronominal feature on D (in addition to the canonical φ-feature probe(s)) to account for the split between pronoun and full DP subjects in their ability to trigger verbal *-s* in a non-syntactic way. Consequently, variation in this account between varieties with and without verbal *-s* stems from the presence or absence of one lexical feature.

The postulation of this additional pronominal feature correctly predicts the variable occurrence of verbal *-s* with complex pronominal subjects (*You ones is old' ken.* Adger and Smith 2010, 1127) in Buckie. As I will outline in the discussion on an approach to Appalachian English by Zanuttini and Bernstein (2011) in Sect. 4.3.3, the feature-ordering proposal to variation (Sect. 3.2) can account both for varieties that have verbal *-s* with complex 1st or 2nd person subjects (such as Buckie and Appalachian English) and for those that do not exhibit verbal *-s* with complex DPs. The analysis made in this paper can, thus, be easily extended to varieties that show the Buckie distribution of verbal *-s*.

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[32] In my understanding, relative frequency is not a strong argument in favour of this approach. The particular lexicon in (41) is able to show a 50/50 split for verbal *-s*, as there is, in informal terms, one path each to -Ø (b) and *-s* (d). This distribution does not necessarily hold for other corpora. For instance, in a quantitative corpus study on verbal *-s* in the NECTE data from 1994, Cole (2008, 97) observes the relative frequency of verbal *-s* with plural DPs to be 12.8%. To correctly predict this distribution, the lexicon would have to be enriched with additional (unique) lexical items that are matched to -Ø so that there is only a 1/8 chance of verbal *-s* with plural DP subjects. This would potentially run into difficulties with clauses (c) "Rejecting synonymy" and (d) "Minimizing lexicon" of the algorithm in (40).

Moreover in contrast to the analysis in Sect. 3.3 (and its extension in Sect. 3.4), a system that deals with the variation lexically seems not to be equipped for handling varieties with the adjacency condition. While varieties without the adjacency conditions, such as Buckie, can be captured by Adger and Smith's (2010) system, the analysis has no natural extension to account for further variation with respect to adverb intervention. Given the fact that there is no difference in terms of features between (verb-)adjacent and non-adjacent pronominal subjects, further assumptions about the mechanics of subject verb agreement would have to be made. This is also true for some of the other non-syntactic approaches to the NSR in Sect. 4.3.

4.3 Morphological approaches

4.3.1 Feature specification on vocabulary items

A conceivable analysis could be a purely morphological one on the basis of modifying the vocabulary entries. Verbal -*s* with plural DPs could arise if the Vocabulary item for -*s* would only be specified for a person (π) feature (i.e., [+3]), but not for number (#) as displayed in (43). In post-syntactic morphology, -*s* would then be inserted whenever T is valued as [π:+3] via Agree with the subject of the clause, regardless of its number feature.

(43) Alternative English present tense verbal Vocabulary Items:

   -s ↔ [+3] *3 pres*
   -Ø ↔ [ ]   *elsewhere*

This, however, does not capture the full DP/pronoun distinction of the verbal -*s* data in the NECTE2 corpus. Verbal -*s* would incorrectly arise with both 3PL full DP subjects and 3PL pronominal subjects.

A possible way to work the full DP/pronoun distinction into the analysis is the additional stipulation of a [±pron(ominal)] feature along the lines of Adger and Smith (2010) (see also Sect. 4.2). It also has to be assumed that this feature participates in Agree for, e.g., a pronominal subject to value T as [+pron]. (A full DP subject would value T as [− pron].) If the Vocabulary item for -*s* is stipulated to be specified for [person] and [pronominal] as illustrated in example (44), verbal -*s* would only arise in clauses with non-pronominal subjects. As before, [number] specification on T would not alter the outcome of Vocabulary insertion.

(44) Alternative English present tense verbal Vocabulary items II:

   -s ↔ [+3, − pron] *3 pres non-pronominal*
   -Ø ↔ [ ]   *elsewhere*

However, this specification wrongly excludes the insertion of -*s* in clauses with 3SG pronominal subjects. There is a possible modification to the Vocabulary entries in (44) such that there are two different Vocabulary items with the exponent -*s*:

(45) Alternative English present tense verbal Vocabulary items III:

   -s ↔ [+3, − pron] *3 pres non-pronominal*
   -s ↔ [+3, − pl]   *3 sg pres*
   -Ø ↔ [ ]   *elsewhere*

This approach would derive *-s* in clauses with non-pronominal subjects (i.e., verbal *-s*) as well as with 3SG pronominal subjects. However, this treatment is conceptually undesirable as it would only come at the cost of dispensing with systematic syncretism: The system would just spell out both environments in which *-s* can arise with the help of accidental homophony, despite the fact that the environments in which *-s* arises are very similar (i.e., present tense verbal inflection in the presence of a 3rd person subject). Moreover, similar adaptions (including homophony) to the Vocabulary entries of present and past tense *be* would have to be made.

4.3.2 Impoverishment

A further morphological attempt could rely on the operation of impoverishment, which deletes morpho-syntactic features post-syntactically before Vocabulary insertion (see Bonet 1991; Halle and Marantz 1993, 1994). However, there are some problems with this approach. Consider the impoverishment rule in (46a): A [+pl]-feature is deleted in the context of [+3,+pl]. However, for verbal *-s* to arise after Vocabulary insertion, the Vocabulary item for *-s* would have to be specified as in (43) (repeated here as (47)). Aside from the problems of this specification sketched above (i.e., not capturing the full DP/pronoun split), deleting [+pl] would have the same outcome as not deleting it at all. A second possible rule in (46b), according to which a [+pl]-feature becomes a [− pl]-feature so that *-s* (specified for [+3, − pl]) can be inserted, is not even impoverishment since there is no deletion involved.[33]

(46)   Possible impoverishment rules for Verbal *-s*:

    a. [+pl] → ∅ / [+3, +pl]__

    b. [+pl] → [− pl] / [+3, +pl]__

(47)   Alternative English present tense verbal Vocabulary items:

    -s   ↔   [+3]   *3 pres*

    -∅   ↔   [ ]   *elsewhere*

Moreover, impoverishment rules involve deleting features from a node so that a less specific Vocabulary item can be inserted. Yet, as 3rd person is always specified and not a default (Nevins 2007), the Vocabulary item for *-s* (i.e., the 3rd person marker) is more specific than the Vocabulary item for -∅. As there would be no retreat to the general case, verbal *-s* cannot arise as a result of impoverishment.

A further approach to the NSR involving impoverishment is hinted at in Nevins and Parrott (2010). The idea is that verbal *-s* arises because of number impoverishment on D before agreement of the subject with T (which is subsequently unable to probe for number). There are a few problems with this sketched system: Firstly, if vP is spelled out as a phase (triggered by merging T), the subject DP in Spec/vP should not be part of the spell-out as it is in the phase edge and has to be available for operations in the higher phase. Secondly and most importantly, if the DP is sent to PF (where

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[33] Impoverishment in the sense of changing a feature value to a less marked value has been suggested by Noyer (1998).

impoverishment takes place), the result of impoverishment (i.e., the node without the number feature) has to be somehow fed-back into narrow syntax for agreement. This would violate cyclicity, however.

4.3.3 Verbal *-s* as person marking

Similar to the picture in North Eastern English, in Appalachian English (AppE) plural DP subjects occur with verbal *-s* (48a) but plural pronouns do not (48b). Zanuttini and Bernstein (2011) propose that *-s* marks person on the verb, while *-s* is assumed to mark only number (not person) in Standard English.

(48)   Verbal *-s* in AppE (Zanuttini and Bernstein 2011, 843):
      a.   These ridges *is* might' nigh straight up and down.
      b.   They *watch*/**watches* you like a hawk, them prisoners does.

Turning first to AppE, Zanuttini and Bernstein (2011) argue that verbal *-s* occurs when no value for person is encoded on the subject, namely with any third person subject except for *they*. Following Bernstein (2008), *they* is claimed to be specified for person via the independent *th-* morpheme. 3SG pronouns (so-called *h-*forms), on the other hand, are said to only encode gender while functioning as 3rd person forms. In Standard English on the other hand, the exponent *-s* only occurs on verbs in clauses with grammatically singular subjects: Zanuttini and Bernstein (2011) assume that *you* is always grammatically plural but can refer to a singular entity (similar to French *vous*; see also Kayne 2000) and that *I* is grammatically unmarked for number (despite having a singular referent), leaving only 3SG DPs with a singular number feature.

Moreover, Zanuttini and Bernstein (2011) propose that agreement on T is relativised for features on N, not on D. If T was looking for a person feature on D, constructions of the kind *the + noun* would never trigger verbal *-s* because of the person-bearing morpheme *th-* in D. In contrast, number is always specified on the noun and not on definite articles in English. Verbal *-s* in Appalachian English is therefore licensed by the lack of a person feature on N, while in Standard English it is licensed by a singular number feature on N.

However, the analysis does not come without some complications. Zanuttini and Bernstein (2011) assume pronominal N-to-D raising (cf. Postal 1969; Longobardi 1994; Cardinaletti 1994), so that *I*, *you*, *we* and *they* all have person features on N. However in the case of complex DPs such as $[_{DP}$ you $[_{NP}$ fellows$]]$, *you* has to be analysed differently so that it does not undergo N-to-D movement. If there was N-to-D raising involved in the derivation, the N-feature for person of raised *you* would prevent verbal *-s* from arising, contrary to the fact in AppE (49).

(49)   Complex subjects in AppE (Zanuttini and Bernstein 2011, 845):
      … and if you fellows *wants* to preach up here.

Interestingly, the proposal made in Sect. 3.2 can be extended to varieties like AppE that exhibit verbal *-s* with complex 1st or 2nd person subjects without further assumptions. If features on T are ordered in such a way that movement precedes both Agree operations ($[\bullet D\bullet] \succ [*\pi*] \succ [*\#*]$, see Sect. 3.5), every full DP subject would occur

with verbal -*s* regardless of person. Head movement of $D^{min/max}$ would, however, not bleed full agreement and pronominal subjects would still not co-occur with verbal -*s*. Thus, an analysis that makes use of different ordering statements on T is able to account for this cross-dialectal variation.

4.3.4 Post-syntactic repair

In a recent approach, Fuß and Trips (2020) investigate the synchronic and diachronic properties of the NSR. This approach draws from the notion of "blank generation", according to which functional heads (i.e., T) can enter syntax without a set of φ-features (see also Roberts 2010b). Variation between -∅ and verbal -*s* arises because of two post-syntactic repair strategies: incorporation of a pronominal φ-feature set into T (resulting in -∅) or default morphology via the elsewhere principle (resulting in -*s*). Crucially, the specifications of present tense verbal Vocabulary items have to be modified so that -*s* is underspecified and -∅ is specified for the presence of positive φ-feature values (50).[34] Moreover, incorporation of φ-feature sets into T is assumed to be only possible under adjacency of a pronoun to T.

(50) English present tense verbal Vocabulary items according to Fuß and Trips (2020):

    -∅ ↔ [+φ] *positive φ-features*
    -s ↔ [ ]   *elsewhere*

The approach is able to account for a traditional NSR pattern. Given that T enters syntax without any φ-features, ∅-morphology can only arise if T is adjacent to a non-3SG pronoun as the positively valued φ-feature set of the pronoun is incorporated into T under adjacency as a post-syntactic repair operation that takes place before Vocabulary insertion. Thus, incorporation is not possible if the subject is either a non-adjacent pronoun or a full DP. In these cases, -*s* is inserted as a last resort strategy.[35]

This system is utilised by Fuß and Trips (2020) to analyse Middle English NSR patterns but it cannot adequately explain two crucial aspects in contemporary NEE data in Sect. 2.2 and, thus, cannot be considered as a viable analysis for the modern NSR pattern: Firstly, post-syntactic repair is only suited for NSR patterns with an intact adjacency condition (i.e., the PSC). However, without the adjacency condition (as in contemporary NEE), (non-3SG) pronominal subjects always trigger standard agreement morphology (i.e., -∅) even if they are not adjacent to the verb. As the system derives -∅ only with the help of post-syntactic incorporation under adjacency and not via Agree, non-adjacent pronominal subjects should not be able to trigger standard agreement. Thus, there is no possibility to derive the full DP/pronoun distinction in varieties where adjacency to the verb is not a factor.

Secondly, explaining verbal -*s* in *be (past)* along the lines of this approach is problematic, as *was* would have to be the elsewhere case and specified for 1SG at the

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[34] However, this is incompatible with the notion of iconicity (i.e., ∅-morphology should correspond to radical underspecification; Wiese 1999).

[35] It has to be noted that Fuß and Trips (2020) assume 3SG to be the absence of any φ-features (see also Harley and Ritter 2002).

same time. Fuß and Trips (2020) claim that *be* does not participate in the NSR pattern proposing a separate head T$_{be}$, which always carries φ-probes. Yet, the data in Sect. 2.2 suggests that verbal *-s* on *be* (i.e., *is* or *was*) can be triggered by non-3SG full DP subjects but not by non-3SG personal pronouns (see, e.g., (3c) in Sect. 2.2).

5 Conclusion

Overall, I argue that verbal *-s* with non-pronominal non-3SG subjects (i.e., the Northern Subject Rule) in North Eastern English follows from two independently motivated assumptions: firstly, the requirement to order elementary operations and secondly, splitting up φ-Agree into two separate operations (person and number Agree). The difference in agreement between NEE and Standard English stems from the difference in ordering the features (and thus operations) on T. In the StE ordering, person ([∗π∗]) and number ([∗#∗]) probes are ranked before the structure building feature ([●D●])—thus giving the impression of a uniform Agree operation before (Internal) Merge. In the NEE ordering, on the other hand, the structure-building feature intervenes between the two probe features (*discontinuous Agree*). The full DP/pronoun split is explained by different kinds of movement: Pronominal subjects remain in the c-command domain of T for #-Agree because they head-adjoin to T, while in the case of a full DP subject movement to Spec/TP bleeds number agreement and verbal *-s* emerges. Optionality of verbal *-s* and canonical agreement in the NEE data is due to the possibility to have both feature orderings in the grammar of NEE speakers.

Moreover, the paper makes claims about the contemporary nature of the NSR. As no instance of verbal *-s* with a non-adjacent pronominal subject surfaced in the corpus study, it is concluded that the adjacency condition of the NSR (i.e., the Position-of-Subject Constraint) is not relevant for an analysis of verbal *-s* in contemporary NEE. This is consistent with the results of other studies on the NSR (e.g., Cole 2008; Childs 2012; Buchstaller et al. 2013).

Declarations

Conflict of interest I have no conflict of interest to declare.

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