The Northern Subject Rule:
A synchronic puzzle with a diachronic solution

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1 Introduction

- **Generalized -s in the present tense**: Major difference between Standard English and northern varieties of English:

	Standard English	Northern dialects of English
1sg	sing	sing-s
2sg	sing	sing-s
3sg	sing-s	sing-s
1pl	sing	sing-s
2pl	sing	sing-s
3pl	sing	sing-s

Table 1: Verbal inflection (present tense), Standard English vs. Northern dialects

- **Northern Subject Rule (NSR)**: In many (Central) Northern varieties (in particular, Northumberland, Cumberland, Durham, Westmorland), the realization of

verbal agreement (i.e., -s) is sensitive to[1]

(i) type of subject (pronouns vs. DPs)

(ii) position of subject

(1) **Northern Subject Rule (NSR)** A finite verb takes the ending *-s* except when it is directly adjacent to a non-3sg pronominal subject (*I/you.sg/we/you.pl/they*).

	Standard English	Northern dialects of English	
		pron. subjects (adjacent to V)	DP subjects
1sg	sing	sing	-
2sg	sing	sing (but: thou sing-s)	-
3sg	sing-s	sing-s	sing-s
1pl	sing	sing	-
2pl	sing	sing	-
3pl	sing	sing	sing-s

Table 2: Verbal inflection (present tense), Standard English vs. Northern dialects + NSR

- As a result, the NSR dialects exhibit a three-way distinction dependent on type and position of subject:

(2) a. the birds (only) sings

b. they sing

c. they only sings

d. they sing and dances

e. they that sings ('they who sing')

- The effects of the NSR can also be observed in cases where the pronoun is right-adjacent to the finite verb (i.e., in cases of subject-verb inversion):

(3) a. **Do** they sing?

b. **Does** the birds sing?

- This paper:

(i) **Post-syntactic analysis of NSR effects**: *-s/-Ø* mark the absence/presence of positively specified agreement features (person/number) in the minimal phonological phrase the finite verb is part of.

(ii) **Historical development of the NSR**: Conspiracy of (i) generalized *s*-inflection; (ii) OE Agr-weakening; (iii) generalized V2 in the northern varieties; dialect contact with southern varieties

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[1]Cf. e.g. (Murray, 1873, Berndt, 1956, Montgomery 1994, Schendl 1996, Corrigan 1997, Börjars and Chapman, 1998, Klemola, 2000, Pietsch 2005.)

2   A post-syntactic approach to the NSR

General problem: "Markedness paradox" (Pietsch 2005) - while -*s* is clearly the marked inflection in Standard English, the situation in the NSR dialects is more complex:

(i) DP /non-adjacent subjects: -*s* as a default marker
(ii) Subject pronouns adjacent to the verb: -*s* seems to mark 3sg.

	Northern dialects of English	
	pron. subjects (adjacent to V)	elsewhere
1sg	sing -Ø	**sing -s**
2sg	sing -Ø	**sing -s**
3sg	**sing -s**	**sing -s**
1pl	sing -Ø	**sing -s**
2pl	sing -Ø	**sing -s**
3pl	sing -Ø	**sing -s**

Table 3: Verbal inflection (present tense), NSR dialects

- **Basic claims**:
  (i) In the NSR dialects under discussion, there is only a single -*s* affix with a uniform specification (default marker/*elsewhere* case);
  (ii) The zero marker signals the presence of positive values for person or number features[2]
  (iii) Agreement is established in the post-syntactic components of grammar (cf. e.g. Embick and Noyer, 2001, Ackema and Neeleman, 2004, Bobaljik, 2008), either via

      * (a) post-syntactic agreement rules that operate on feature bundles that are part of the same phonological phrase (cf. Ackema & Neeleman 2004 on complementizer agreement)
      * (b) insertion of dissociated agreement morphemes (copies of the subject's phi-set) under adjacency (Embick, 1997, Noyer, 1997, Embick and Noyer, 2001)

- **Adjacency effect**:
  (4)   -Ø marks the presence of positive specifications for [+/- person] or [+/- number] in the minimal phonological phrase the finite verb is part of.

- -*s* with 3sg pronouns: 3sg pronouns are characterized by the absence of (positive) specifications for [person] and [number][3] → insertion of the elsewhere marker -*s*

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[2]Alternatively, we might assume that the -*s* ending marks the absence of positive specifications for person or number in the immediate phonological phrase the finite verb is part of. While this analysis seems to be a technical possibility, it fails to capture the *elsewhere*/default character of -*s* is the relevant varieties (e.g., under non-adjacency etc.).

[3]cf. Benveniste, 1966, Halle, 1997, Noyer 1997, Harley and Ritter, 2002, Cysouw, 2003

- *-s* with phrasal subjects: Phrasal subjects are mapped onto a separate phonological phrase (Cinque, 1993). Their feature content is therefore not visible to the workings of the relevant agreement operations → insertion of the elsewhere marker *-s*
- The analysis makes available a new perspective on 3sg *-s* in Standard English: *-s* is not explicitly specified for [person] and [number], but rather sensitive to the presence/absence of positive feature values for [person] or [number] (see Haeberli, 2002 for a related analysis).
- **Further evidence supporting a post-syntactic account**: strong pronouns behave like phrasal subjects and always trigger *-s* (cf. Pietsch 2005: 8, 88):

  (5)   They´ve recently comed, *has them.*

3   The historical development of the NSR

3.1   Historical stages in the rise of the NSR

	Old English	Northern ME I	Northern ME II	Northern ME III → EModE
1sg	sing-e	sing-e	sing-Ø	sing-s → I sing -Ø
2sg	sing-es(t)	sing-es	sing-s	sing-s (thou sings) → you sing
3sg	sing-eð	sing-es	sing-s	sing-s → he/she/it sing-s
1pl	sing-að	sing-es	sing-s	sing-s → we sing -Ø
2pl	sing-að	sing-es	sing-s	sing-s → you sing -Ø
3pl	sing-að	sing-es	sing-s	sing-s they sing-s → sing-Ø

Table 4: Historical development of verbal inflection, Northern dialects

(i) During the transition from OE to northern ME, 2sg *-es*, 3sg *-e/ðe* and pl *-a/ðe/-as* fell together in *-e(s)* (rise of an underspecified inflectional marker)

(ii) After the loss of vowels in the final syllable, northern ME exhibited an opposition between 1sg *-Ø* and all other contexts (*-s*)

(iii) Extension of *-s* to 1sg; NSR: introduction of the zero marker in plural contexts (first with lexical verbs and in adjacency contexts): first with 1pl/2pl, somewhat later with 3pl

(iv) Analogical extension to forms of *be* (including *was/were*);[4]. Replacement of *thou is* with *you are* (the original plural form) in the EModE period (not in all dialects)

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[4]Apparently, the use of is and was in the plural was never as categorically as the use of *-s* with lexical verbs (cf. e.g. Montgomery 1994). However, it seems that present-day dialects exhibit a different tendency, in that they preserve the NSR more strongly with forms of be (Pietsch 2005)

3.2 Old English

- Berndt (1956): Later group of Northumbrian texts (*Lindisfarne Gospels*, *Rushworth(2) Gloss*, *Durham Ritual*, all mid-10th century) are first OE texts that show the -*s*-ending variably with the -*ð*-ending ; triggering factors are subject pronouns which could take over the function of person marking; completely refutes phonetic factors for change of -*ð* to -*s* → special role of subject pronouns (as opposed to NP subjects) foreshadows part of the NSR
- Further observation: (late) OE exhibits agreement variation/weakening in inversion contexts (Jespersen, 1942, 15, Quirk and Wrenn, 1955, 42, Campbell, 1959, 296, van Gelderen, 2000): In cases where *we* or *ge* follows the inverted finite verb, the regular agreement ending is replaced by schwa[5]

> (7) a. Ne **sceole ge** swa softe sinc gegangen.
>   *neg must   you so   easily treasure obtain*
>   'You must not obtain treasure so easily.' (Battle of Maldon, p. 244, 1.59)
>
>   b. Hwæt **secge we** be þæm coc?
>   *what say   we about the   cook*
>   'What do we say about the cook?' (AElfric´s Colloquy on the
>   Occupations, p. 188, 1.68)

- The regular endings for the present tense indicative and subjunctive forms are -*að*, -*on*,-*en* for the personal pronouns *we* and *ge*
- The exception to this rule are contexts where the finite verb precedes the pronouns *we* and *ge*: the reduced form -*e* can occur
- Rodeffer (1903) explicitly assumes that these syncopated forms were the direct source of the later affixless forms of the NSR.
- Corpus study: position of the personal pronouns *we* and *ge* and adjacent present tense verb forms in the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* (Taylor et al., 2003) reveals the following results → Table 5[6]:

- Most strikingly the forms ending in -*e* are predominantly found in the inversion context (for *we* 268 vs. 17, for *ge* 363 vs. 5)
- These forms are predominantly marked as ambiguous forms (i.e. they are tagged VBP in the corpus implying their ambiguous status), some unambiguous subjunctive forms are also found (for *we* 6 vs. 268, for *ge* 363 vs. 11)

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[5]Similar observations hold for early OHG (1pl), cf. Braune & Reiffenstein (2004:262), and present-day Dutch (Ackema & Neeleman 2004):

(6) a. Jij loop-t dagelijks met een hondje over straat.
       you walk-2sg daily   with a   doggy over street
     b. Dagelijks loop-Ø jij   met een hondje over straat.
       daily   walk   you with a   doggy over street
       (Ackema and Neeleman 2004: 193)

[6]vbp* = all present tense verb forms (full verbs, auxiliaries, modals), vbpi = all unambiguously indicative verb forms, vbps = all unambiguously subjunctive verb forms, vbpamb = ambiguous subjunctive/indicative verb forms.

First person plural pronoun *we*		Second person plural pronoun *ge*	
we - **vbp***	**vbp*** - *we*	*ge* - **vbp***	**vbp*** - *ge*
1998	640	874	597
we - **vbpi**	**vbpi** - *we*	*ge* - **vbpi**	**vbpi** - *ge*
1783	174	655	68
we - **vbps**	**vbps** - *we*	*ge* - **vbps**	**vbps** - *ge*
198	122	211	44
we - **vbpamb**	**vbpamb** - *we*	*ge* - **vbpamb**	**vbpamb** - *ge*
17	268	5	363

Table 5: Verb forms occurring with "we" and "ge"

- The regular endings -*að* (-*ð* for *don,gan,willan*) and -*on* (for modals like *magon, sculon, witon*) predominantly occur in non-inversion contexts (for *we* 1783 vs. 174, for *ge* 655 vs. 68)
- These findings clearly indicate that there is a correlation between the occurrence of the -*e* ending and subject-verb inversion for both personal plural pronouns across all texts in the corpus (finding corroborates Jespersen's observation)
- Concerning early occurrences of the -*(e)s* endings, only five reduced forms of the second person singular could be found (*ðu tilas, hafas, ehtes, agylts, wens*; all other forms (third person sg. and plural forms show regular endings.

3.3 Middle English

- While the NSR is not attested in late (northern) OE records (dating from the mid-10th century), it occurs in some ME texts. A survey of all texts in the *PPCME2* gained the following results[7]:

- Some examples for NSR with NP subjects are given below:
  (8) a. þa gates sal   ye   fle þat **wicke men gas** to hell by.
       the gates shall you flee that wicked men goes to hell by
       (BENRUL,12.411)
    b. and **þe vij beemes bitokenes** þat ge   shul haue vij sones;
       and the five trumpets symbolises that you shall have five sons
       (BRUT3,64.1920)
    c. **The ten commandmentis kennes** vs what we sall   do,
       the   ten commandements   tell   us what we shall do
       (EDTHOR,28.312)

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[7]Apart from these cases which adhere to the NSR, we found cases which also show non-agreement but instead of the -*s*-ending with the -*(e)þ* ending (5 cases from the *Polychronicon* (M3,S), *Mirk's Festial* (M34,WM), *A Late Middle English Treatise on Horses* (M3,S) *Aelred of Rievaulx's De Institutione Inclusarum* (M23,WM)

Text	Dialect	Date	-*s* with plural NP subj.	-*s* with non-adjacent subj. pron.
BENRUL	N	M3 (a1425)	6	
BRUT3	WM	M3 (c1400)	1	
EDTHOR	N	M34 (c1440 (?1350))	9	
GAYTRY	N	M34 (c1440)	8	
JULNOR	EM	M34 (c1450)	2	
ROLLEP	N	M24 (a1450,(?1348))	27	4
ROLLTR	N	M24 (c1440 (a1349))	10	3
ROYAL	S	M34 (c1450 (c1425))	1	

Table 6: The NSR in the PPCME2

   d. Of whilke synn, **many spyces sprenges and spredes**.
     of which sin   many species grows   and spreads
     (GAYTRY,12.160)

   e. Oure lorde has pite and compassyon of vs for that **sum creatures**
     our   lord   has pity and compassion of us for that some creatures
     makes tham so besy þeryn,
     makes   them so busy therin
     (JULNOR,62.327)

   f. **Robes and ritches rotes** in dike,
     robes   and ritches rots   in ditch
     (ROLLEP,64.62)

   g. **Astronomyenes by-haldes** þe daye and þe houre, and þe poynte þat
     astronomers   observes   the day and the hour, and the point   that
     man es borne In, . . .
     man is borne in
     (ROLLTR,10.284)

   h. And to sey shortely, welnyg in euery coost of þe marches **Cristen**
     and to say shortly, nearly in every coast of the marches Christen
     mens lordeshippes decresses
     men's lordships   decreases
     (ROYAL,255.274)

- The only examples found with plural pronouns non-adjacent to present-tense verb with the -*s*-ending occur in Rolle's works
- A look at some examples gives the impression that the NSR is established in the works of Richard Rolle[8]:

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[8]Richard Rolle of Hampole (ca. 1290-1349), Yorkshire, English hermit and mystic, one of the first religious writers to use the vernacular, very well known at his time and his writings were widely read during the 14th and 15th century

(9)   a.   Some þe devell deceyves þurgh   vayne glory, þat es ydil joy: when any
some the devil   deceives   through vain   glory that is idle joy   when any
has pryde and delyte in þamself   of þe penance þat **þai suffer**, of
has pride and delight in themselves of the penance that they suffer   of
gode dedes þat **þai do**. of any vertu þat **þai have**; es glad when **men**
good deeds that they do   of any virtue that they have   is glad when men
loves þam, sari   when **men lackes** þam, **haves envy** to þam þat es
loves   them sorry when men lacks   them haves   envy   to them that is
spokyn mare gode of þan of þam;
spoken   more good of than of them
(ROLLEP,86.368)

     b.   He says þat 'he lufes þam þat lufes hym, and **þai þat arely wakes**
he   says that he   loves them that loves him   and they that early   wakes
til hym sal   fynde him'.
till him shall find   him
(ROLLEP,76.212)

     c.   and God comfortes his lufers mare þan   **þai wene þat lufes hym**
and God comforts   his lovers more than they think   that loves him
noght.
not
(ROLLEP,63.44)

- A closer look at the contexts with non-adjacent plural pronouns reveals that

  a) it is only the 3rd ps. plural pronoun that occurs,
  b) non-adjacency between the plural pronoun and the present tense verb is triggered in contexts where the verb occurs in a relative clause directly following the pronoun.

- This observation is confirmed by a survey of the texts from the *Helsinki Corpus of Middle Scots*: If instances of this type of NSR occur, they do so in exactly the same context:

(10) QUHOU MAN SINNIS AGANIS THE SECUND COM̃AND OF GOD THE
QUHILK IS THOU SAL NOTH TAK THE NAYME OF GOD INUANE
ad̃ **thay that sweris** ony fals aith or kepis notht thair faith promis in al
lesum thig̃is / siclik **thay yat sweris ad̃ wowis** yat thay sal dw ony ewil
quhilk is aganis the co mad̃is of God / thay prosperite / **thay that desiris**
lowine or vane gloir for thair or visdom̃e or of ony oder giftis of god / **thay**
yat callis yat thay dw better na oders / and ar hard with god for causz **thay**
reid and prais mekil and **dois** mony wtuert fenzeit warkis thay thaime / **thay**
that corekkis noth oders quhilk **takis** the nayme god inuane (giff thay cane
in oni maner) **thay that heris** or chraft / or to ony oder siclik abusione and
turnis thayme notht thairfra efter thair onerstad̃ing / alsua **thay that**
desiris lif thay sine aganis this forsaid secund command of god aganis it /
thay that prais notht inuertlie to god ad̃ seruis hime notht in the spreit /
thay that trowis notht that thair guid varkis cuĩs notht of god bot of thair

selfſ thay wil notht suffer god to daῖ aᷓ̃ rewl thayme be aduersite efter the halie man iob **Thay that leris** notht oders yat thay suld notht help thayme with meid aᷓ̃ claith and oder neidful thingis (efter thair power) in thair necessite / and specialie thay yat or wil notht heir thaime ...
(GAU,JOHN.THE RICHT VAY TO THE KINGDOM OF HEUINE, 1533)

3.4 Towards an analysis

- **Basic claims**: After the breakdown of the OE agreement system, the NSR developed via a combination of generalized V2 in the northern varieties + agreement weakening in inversion contexts, which was also at work in OE (and turned into the NSR after the loss of V2).
- **Contextual allomorphy** of 1pl/2pl forms dependent on the structural position of the finite verb (cf. e.g. Roberts, 1996):

  (i) C° in contexts with fronted operators (*wh*, negation etc.)
  (ii) A lower inflectional head (Infl°/T°) in all other contexts (cf. e.g. Cardinaletti and Roberts, 2002; Pintzuk, 1999; Hulk and van Kemenade, 1995; Kroch and Taylor, 1997; Haeberli, 1999, Fischer et al., 2000, and many others):

  (11) a. [CP Op [C' C+Vfin [TP subject pronoun [T' T [VP ...]]]]]]
          → agreement weakening
       b. [CP XP [C' C [TP [T' T+Vfin [VP DP subject ...]]]]]]
          → regular agreement
       c. [CP XP [C' C [TP subject pronoun [T' T+Vfin [VP ...]]]]]]
          → regular agreement

- (Syntactic) Agr-weakening was originally a southern property, which most likely entered northern grammars via dialect contact (cf. Pietsch 2005: 53f. for discussion).
- **Northern varieties**: the original OE pattern in (1) was generalized to all contexts with adjacent non-3sg subject pronouns (cf. Rodeffer, 1903, Pietsch 2005)[9].
- **Why only in the northern varieties?** Major syntactic differences between northern and southern varieties (early ME; (cf. Kroch and Taylor, 1997; Trips, 2002)[10]:

  (12) a. [CP XP [C' C+Vfin [TP subject [T' T [VP ...]]]]]]
       b. [CP subject [C' C+Vfin [TP t_{subj} [T´ T [VP ...]]]]]]

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[9]Rodeffer's proposal is criticized by Berndt (1956), who argues that quantitative data from Northumbrian OE texts indicate that there is no direct link between agreement weakening in OE and the NSR (more precisely, Berndt argues that the evidence available to us suggests that agreement weakening had already been in decline in the northern varieties before *-s* was generalized to all persons and numbers). See Pietsch (2005:50ff.) for comprehensive discussion and a critical assessment of Berndt's arguments.

[10]Moreover, the NSR could not have developed in the southern varieties for purely morphological reasons: the loss of plural /-n/ in ME period served to neutralize the contrast between full and syncopated forms formerly introduced by OE Agr-weakening.

- **Impact of dialect contact (southern Agr-weakening)**: Northern learners could not attribute Agr-weakening to:

  (i) a special position of the verb (due to generalized V2) nor

  (ii) a special position of pronouns (same syntax for all kinds of subjects) → **reanalysis in terms of a post-syntactic agreement operation that is sensitive to phonological phrasing (and distinguishes between (non-3sg) pronouns and non-pronouns)**.

- Results: Syncopated 1pl/2pl forms were not any longer confined to operator contexts → **extension of "Agr- weakening" to all 1pl/2pl contexts, including preverbal pronouns in both main and embedded clauses**:

  (13) ... þe penance þat **þai suffer** ...
       the penance that they suffer
  (ROLLEP, 86.368)

- **Development of the position-of-subject constraint**: In *The Bee and the Stork*, a short morality tale also written by Rolle, we can observe first instances of the position-of-subject constraint:

  (14) Swa **thay hafe** vndirstandynge, and **fastes** and **wakes** and **semes** haly to
       so   they have understanding   and fasts   and wakes   and seems holy to
       mens syghte
       men's sight
       (Richard Rolle, *The Bee and the Stork*, in the MED corpus, p. 194)

- **Extension to 3pl**: In ME, the Northern varieties replaced the original OE 3pl pronoun *hio/heo* with the Scandinavian *ðai* (which later spread to all varieties). This innovation led to cluster reduction of [s + ð] to [ð] for phonetic reasons (which was possibly promoted by analogical pressure (1pl/2pl), cf. Pietsch 2005:56).

- **Speculation**: Rise of the NSR was promoted by language contact with the Brythonic Celtic languages, which exhibit a similar distinction between pronouns and non-pronouns (cf. Hamp, 1976; Klemola, 2000, Filppula et al., 2002; de Haas, 2008

  (15) a. gwelsan (nhw) ddraig.
          see-3pl (they) dragon
          'They see a dragon.'
       b. gwelodd y   dynion ddraig.
          see   the men   dragon
          'The men see a dragon.'

- **"Markedness reversal"**: 'weak' syncopated OE forms turn into the marked inflections in the NSR dialects (signaling positive feature values):

  a) *-s* ending generalized to all contexts in the northern dialects;

  b) Reanalysis of OE agreement weakening leads to zero ending in the NSR dialects: (i) 1pl/2pl; (ii) extension to 3pl; (iii) extension to 2sg (2pl you »> 2sg);

  c) Extension of -Øto 1sg in NSR contexts facilitates a reanalysis of *-s* as the elsewhere marker (with -Øsignaling positive values for [person] and [number]),

probably driven by learning strategies that favor an economic inventory of inflectional markers (*Minimize Feature Content*, Halle, 1997, Fuss, 2008).

3.5 Summary

- **Synchronic analysis of the NSR** in terms of an agreement rule which operates post-syntactically and establishes agreement between elements that are part of the same (minimal) phonological phrase (weak pronouns vs. DP subjects).
- The zero marker signals positive values for [person] or [number]; -*s* is analyzed as the elsewhere case.
- **Historical development of the NSR**: After the breakdown of the OE agreement system, the NSR developed via dialect contact between northern and southern ME varieties. The rise of a post-syntactic NSR was shaped by the following factors:

  (i) generalized verbal -*s* in the northern dialects
  (ii) generalized V2 in the northern dialects
  (iii) Reanalysis of southern Agr-weakening (1pl/2pl) in terms of a post-syntactic operation in the northern dialects → (a) extension to preverbal pronouns; (b) development of position-of-subject constraint; (c) markedness reversal.

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