

All together or every man for himself? On the diachronic interplay between syntax and morphology (in Cimbrian and elsewhere)

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1. Introduction

- Old idea in (historical) linguistics: **Correlation between syntactic and morphological change**, cf. the following statements taken from Sapir (1921) and Vennemann (1975) on the connection between the loss of (rich) case morphology and the rise of (basic) SVO order:¹

“[...] as the inflected forms of English became scantier, as the syntactic relations were more and more inadequately expressed by the forms of the words themselves, position in the sentence gradually took over functions originally foreign to it.” (Sapir 1921: 178)

“As a substantive S-O marking system is eroded by phonological change, word order syntax must react to compensate for the ambiguities and perceptual complexities arising in a consistent verb-final language.” (Vennemann 1975: 293)

- In the generative literature, the link between morphology and syntax has been reinterpreted in terms of **synchronic universals** (i.e., ‘hard-wired’ properties of UG), in the sense that the presence of a certain morphological property *M* triggers a syntactic property *S*.²
- One of the most widely discussed of these is the ‘**Rich Agreement Hypothesis**’ (**RAH**), originally going back to work by Kosmeijer 1986 and Platzack & Holmberg 1989), according to which verb movement to INFL/T (i.e., to a position to the left of negation and VP-related adverbs) is linked to rich subject agreement morphology on the finite verb:

(1) Diagnostic test for verb movement: subj. **V_{fin}** NEG/ADV [_{VP} *t_{Vfin}* ... (V) ... obj.]

- The RAH comes in two basic variants:³

¹ Sapir focuses on seemingly directional historical developments (‘drift’) in the history of English, leading from synthetic to analytic constructions (loss of case endings – stabilization of SVO word order – rise of the invariable word). Vennemann (1975) generalizes Sapir’s insights in the form of a diachronic universal (based on considerations of language processing/perception and linguistic typology).

² Relevant diachronic generative studies investigated the impact of the loss of verbal inflection on the availability of verb movement (for the history of English cf. Roberts 1993; for the Scandinavian languages Platzack 1988, and Holmberg and Platzack 1995; see also Rohrbacher 1999) and pro-drop (for the history of French cf. Roberts 1993, Vance 1997; for present-day varieties of French cf. Roberts 2010; for Swedish Falk 1993, for the Scandinavian languages in general cf. Holmberg and Platzack 1995; for English Allen 1995, Haerberli 1999), the relation between the loss of nominal inflections and changes affecting word order and the rise of ECM constructions (for the history of English cf. Lightfoot 1979, 1991, 1999, van Kemenade 1987, Roberts 1997, Kiparsky 1996, 1997, Haerberli 1999, 2004, Biberauer and Roberts 2005, 2008), or changes affecting the inventory of C-related clausal particles and the rise of generalized V2 syntax in Germanic (cf. Ferraresi 2005 on Gothic and Axel 2007 on Old High German).

³ For the strong biconditional RAH cf. Vikner (1997) and Rohrbacher (1999); for weaker formulations in terms of a one-way implication, cf. Platzack & Holmberg (1989), Roberts (1999, 2007), Koenenman (2000), and Bobaljik (2003); Alexiadou & Fanselow (2002) for a diachronic explanation of the link between agreement and V-to-I.

- (2) a. The ‘strong’ RAH: Rich subject agreement morphology \longleftrightarrow V-to-I
 b. The ‘weak’ RAH: Rich subject agreement morphology \longrightarrow V-to-I
- In the debate on the validity of the RAH, diachronic evidence played a significant role from early on:
 - ❖ Initially, the observation that in the Germanic SVO languages, the erosion of the formerly rich verbal agreement system preceded the loss of verb movement, was taken to support a strong interpretation of the RAH.
 - ❖ When it became clear that the loss of agreement morphology and the loss of verb movement are often separated by a considerable temporal gap, diachronic evidence was used as an argument against a strong, biconditional interpretation of the RAH.
 - Recently, Koenenman & Zeijlstra (2014) have argued that the RAH should be reinstated in its strongest, biconditional form, linking richness of verbal inflection to universal properties of subject pronoun inventories (Greenberg’s 1963 universal 42):⁴
- (3) A language exhibits V-to-I movement iff the regular paradigm manifests featural distinctions that are at least as rich as those featural distinctions manifested in the smallest pronoun inventories universally possible [= three persons, two numbers].
- Koenenman & Zeijlstra further suggest that problematic diachronic evidence can be accounted for by assuming that after the loss of the morphological distinctions, conflicting word order patterns may be preserved via syntactic reanalysis.
 - This paper: Re-assessing the relationship between morphological and syntactic change, focusing on the RAH:
 - ❖ Discussion of diachronic evidence suggesting that the connection between syntax and morphology is less tight than one might hope for;
 - ❖ Problematic cases discussed here: (i) morphological change without (or with delayed) syntactic change; (ii) syntactic change without (or with delayed) morphological change; (iii) lack of V-to-I despite rich agreement after a change from OV to VO (cf. Fuß 2016 for further problems).

Overview:

- Section 2 discusses strong/weak theories of the morphology/syntax interface and their predictions for language change.
- Section 3 briefly reviews a set of (well-known) problems concerning the diachronic connection between (the loss of) rich verbal agreement and verb movement (the RAH)
- Section 4 presents a set of lesser-known data that raise further questions for the assumption that there is a (strong) link between morphology and syntax, focusing on the status of the RAH in languages that have undergone a change from SOV to SVO (Cimbrian and Lithuanian).
- Section 5 wraps up and provides a concluding summary.

⁴ Koenenman & Zeijlstra assume that rich agreement features are located in a separate functional head Arg (for Argument(hood)) that obligatorily triggers verb movement if present (while poor agreement is linked to features on *v*). They argue that well-known counter-examples against a strong RAH (such as Faroese or Övdalian) do not stand up to closer scrutiny. More precisely, they maintain that relevant exceptions (e.g., apparent verb movement in the absence of rich inflection) can be explained away by assuming that elements such as adverbs and negation that are commonly used as diagnostics for the structural position of the finite verb occupy an exceptionally high (or low) position in the problematic data.

2. Does morphology drive or reflect syntax? Predictions for language change

2.1 The strong view

- Theories assuming a strong causal link between morphology and syntax (e.g., the strong RAH, Rohrbacher 1999, Koenenman & Zeijlstra 2014): Morphological and syntactic change should proceed more or less simultaneously:
 - ❖ Loss of morphological property $M \Rightarrow$ loss of a syntactic property S linked to M
 - ❖ Rise of morphological property $M \Rightarrow$ rise of S linked to M
- This approach necessarily leads to a conflict w.r.t. language acquisition:
- Loss of M : At the point when a learner fails to acquire M , M will still be part of the target grammar. As a result, syntactic patterns linked to M will continue to be part of the input the learner receives, leading to a situation where morphological and syntactic cues⁵ for a given property/parameter contradict each other:

| |
|--|
| Target grammar G1 (+ M , + S) \Rightarrow Output 1 (status of M unclear, but synt. cues linked to + S) \downarrow Grammar G2 acquired by the learner ($-M$, $-S?$) \Rightarrow Output 2 |
|--|

- Rise of M : When the learner acquires M (e.g., rich agreement via a reanalysis of subject clitics), he/she will encounter syntactic patterns that does not match M (since the target grammar lacks both M and S):

| |
|---|
| Target grammar G1 ($-M$, $-S$) \Rightarrow Output 1 (status of M unclear, but synt. cues linked to $-S$) \downarrow Grammar G2 acquired by the learner (+ M , + $S?$) \Rightarrow Output 2 |
|---|

- Moreover, the strong view predicts that it should not be possible to innovate a syntactic property S in the absence of a morphological property M to which S is causally linked (likewise, a language cannot lose S as long as M is present).

2.2 The weak view

- Theories assuming a weak causal link between morphology and syntax (e.g., the weak RAH, cf. e.g. Roberts 1999, 2007, Bobaljik 2003): The loss of M does not necessarily entail a loss of S connected with it, as long as the latter can be acquired based on syntactic trigger evidence:
 - ❖ Loss of morphological property $M \Rightarrow$ evidence for S linked to M weakened, but S may remain part of the grammar
- Loss of M : A weak approach provides enough leeway to account for temporal gaps between the loss of M and syntactic change. Moreover, the loss of inflections does not lead to a conflict during L1 acquisition.
- Rise of M : When it comes to the rise of M (e.g., via grammaticalization processes), the diachronic predictions of the weak position do not differ from those of the strong view:

⁵ That is, properties of the input (the Primary Linguistic Data) that trigger a certain parameter value (cf. Lightfoot 1999 on the notion of *cue* and Clark & Roberts 1993 on the notion of *parameter expression*).

- ❖ Rise of morphological property $M \Rightarrow$ rise of S linked to M
- Even under the weak view, the rise of M leads to a conflict: The word order patterns generated by the target grammar (which lacks both M and S) does not match morphological properties posited by the learner (e.g., innovated rich verbal agreement).
- Possibility of syntactic change independent of morphological change: In principle, a language can develop a syntactic property S linked to M even if M is absent (the opposite, i.e., loss of S in the presence of M should not be possible)
- Summing up:
 - ❖ Weak theories can better handle scenarios that involve the loss of morphological properties (temporal gap between morphological and syntactic change)
 - ❖ Both strong and weak theories make strong predictions concerning the rise of a morphological property M causally linked to a syntactic property S .
 - ❖ The strong approach further predicts that it should not be possible to innovate a syntactic property S in the absence of a morphological property M to which S is causally linked.

3. Known problems – reanalysis as a solution?

- Koenenman & Zeijlstra (2014) propose that conflicts between syntactic (i.e., verb movement) and morphological cues resulting from the loss of inflections may be resolved via a reanalysis of problematic word order patterns. The reanalysis preserves (for some time) the ‘old’ word order and is thus presented as an explanation for the fact that syntactic change often lags behind:
 - i. Reanalysis of syntax to fit the morphology: V-Neg/Adv patterns that cannot any longer be parsed in terms of V-to-I movement are reanalyzed in terms of
 - a. embedded V2 (i.e., V-to-C movement; Faroese)
 - b. an exceptionally low position of adverbs and negation (Regional North. Norweg.).
- (4) $[_{CP} [_{IP} V_{fin}+INFL [_{NegP} Neg [_{vP} Adv \dots]]]]$ is reanalyzed as either (4a) or (4b):
- (5)
 - a. $[_{CP} V_{fin}+C [_{IP} INFL [_{NegP} Neg [_{vP} Adv \dots]]]]$
 - b. $[_{CP} [_{IP} INFL [_{vP} V_{fin}+V [_{VP} Neg Adv \dots]]]]$
- ii. Reanalysis of morphology to fit the syntax: Restoration of rich verbal inflection (i.e., the trigger of V-to-I) via a reanalysis of subject clitics as agreement markers (French, see appendix I).
- General Problems:
 - i. This proposal seems to insulate the strong RAH from problematic diachronic evidence.
 - ii. Moreover, it relocates the problem but does not solve it: Why are the results of the reanalyses not stable over time? After all, the relevant parametric choices (e.g. reanalysis of adverb placement, or verb movement) should be as ‘good’ or stable as any other grammar that is compatible with the principles of UG.⁶

⁶ Note that the weak RAH faces related problems, since it is unclear why ‘disharmonic’ systems combining weak inflection and verb movement do not seem to be stable either (but. cf. Haerberli 2004 for discussion and Heycock & Wallenberg 2013 for a possible solution based on Yang’s 2000 variational learning model).

3.1 Morphological change and delayed syntactic change I: Danish

- Verbal agreement: By 1350 all person distinctions have been lost (Sundquist 2002, 2003):

| | Present | Past |
|-----|---------|-------|
| 1sg | dømær | dømdæ |
| 2sg | dømær | dømdæ |
| 3sg | dømær | dømdæ |
| 1pl | dømæ | dømdæ |
| 2pl | dømæ | dømdæ |
| 3pl | dømæ | dømdæ |

Table 1: Middle Danish (around 1350): *dømæ* ‘to judge’ (Sundquist 2003: 244)

- Syntax: V-to-T continues to occur at a rate of over 40% till the end of the 16th century (in embedded clauses without V2)

| | V–Neg | % | V–Neg revised ⁷ | % |
|-----------|--------|-----|----------------------------|-----|
| 1500–1550 | 52/116 | 45% | 16/38 | 42% |
| 1550–1600 | 40/123 | 33% | 7/24 | 29% |
| 1600–1650 | 13/106 | 12% | 6/45 | 13% |
| 1650–1700 | 13/110 | 12% | 5/33 | 15% |

Table 2: V–Neg orders in Early Modern Danish: 1500–1700 (Sundquist 2003: 242)

- Loss of agreement inflection and loss of verb movement are separated by a temporal gap of approximately 250 years (see Sundquist 2002, 2003 for details and an account not based on the (strong) RAH).⁸
- The weak RAH: no problem (so it seems)
- The strong RAH: Potential account (in the spirit of Koeneman & Zeijlstra 2014): Reanalysis of problematic V-Adv/Neg orders in terms of (i) V-to-C movement, or (ii) a low position of Adv/Neg.
- Problems (Sundquist 2003, Heycock & Sundquist 2016):
 - ❖ The availability of V-Neg/Adv orders in contexts that do not license V2 suggests that V-to-T/Arg movement has not been reanalyzed as movement to C.
 - ❖ Historical stages of Danish arguably do not meet the diagnostic criteria for low adverb/negation placement which Koeneman & Zeijlstra identify for Övdalian and Regional North Norwegian (apart from the surface position, the syntax/semantics of these elements does not seem to differ from present-day Danish).

⁷ Without clauses (i) introduced by *at* (possible instances of embedded V2 under bridge verbs) and (ii) containing pronominal subjects (which may cliticize onto the complementizer and thus might license stylistic fronting of adverbs).

⁸ See also Heycock & Wallenberg (2013) on related developments in other Scandinavian languages and an account in terms of Yang’s (2000) variational acquisition model.

3.2 Syntactic change and delayed morphological change: English

- Verb movement is lost in two steps (Haerberli & Ihsane 2014, 2015):
 - (i) loss of movement to a ‘high’ position to the left of adverbs (Haerberli & Ihsane: T⁰)
(start: middle of 15th century; completion: middle of the 16th century);
 - (ii) loss of movement to a ‘low’ position to the left of negation (Haerberli & Ihsane: Asp⁰)
(start: middle of the 16th century; completion: second half of the 18th century)

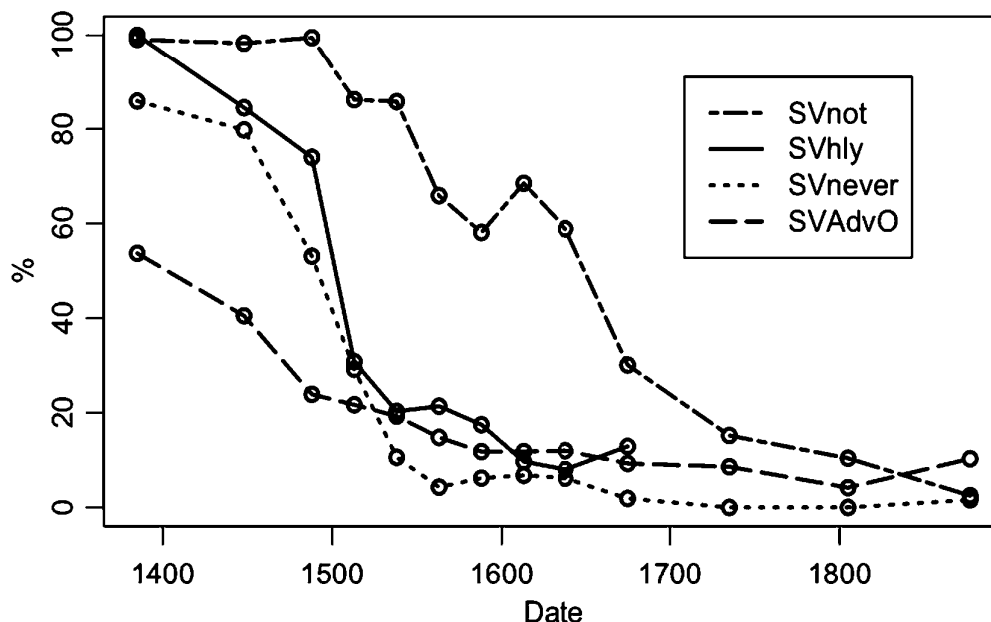


Figure 1: Verb placement relative to Adv/Neg in the Penn Corpora and PCEEC (Haerberli & Ihsane 2015's figure 2)

- Verbal agreement morphology: Paradigm counts as ‘rich’ (in K&Z’s sense) until the 17th century (the 2sg ending *-(e)st* continues to be robustly used in connection with *thou*):⁹

| | Strong verbs: <i>binden</i> ‘to bind’ | Weak verbs: <i>love(n)</i> ‘to love’ |
|---------------------------|--|---|
| Present indicative | | |
| 1sg | binde | love |
| 2sg | bindest | lovest |
| 3sg | bindeth | loveth |
| pl | binde(n) | love(n) |
| Past | | |
| 1sg | bounde | lovede |
| 2sg | bounde | lovedest |
| 3sg | bounde | lovede |
| pl | bounde(n) | lovede(n) |

Table 3: Verbal agreement, Middle English (Ellesmere ms. of *The Canterbury Tales*, late 14th/early 15th century, London)

- The loss of a distinctive 2sg ending results from the replacement of the 2sg pronoun *thou* by *you* (cf. e.g. Mitchell 1971, Hope 1993, Busse 2002):

⁹ Note that Northern varieties exhibit less rich agreement (merger of 2sg and 3sg), while Southern varieties are more conservative than the London or Midland varieties (plural \neq infinitive).

“The replacement of *thou* by *you* starts very slowly in the 13th century, reaches its peak in the 16th and 17th centuries, and then slowly recedes from the 18th century onwards, except in special genres and registers.” (Busse 2002: 10)

- Development from 1580-1780, based on Mitchell (1971), who collected 57.580 occurrences of 2nd person pronouns from 62 plays written between 1580 and 1780:

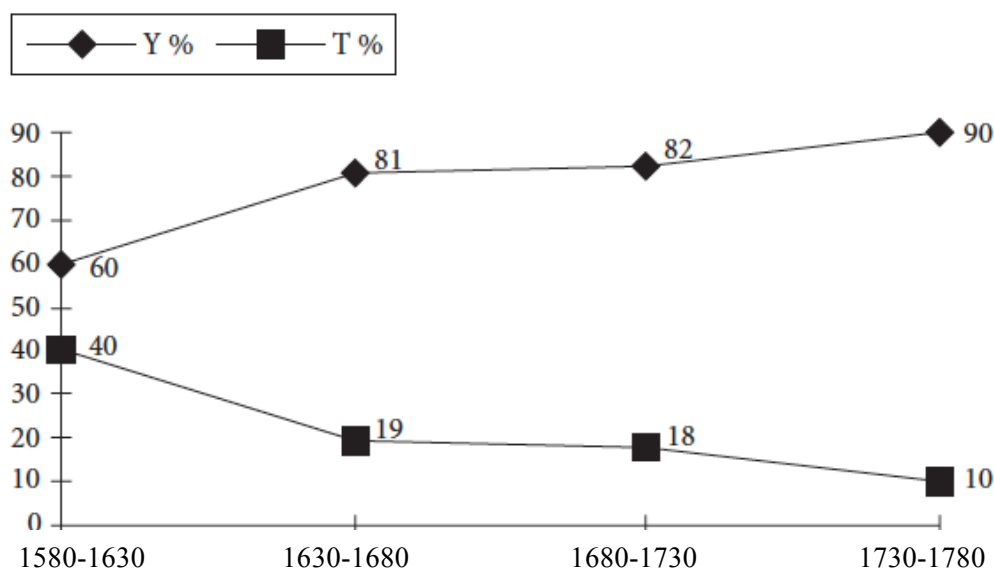


Figure 2: The percentage of *thou* and *you* in 62 plays from 1580 to 1780 (Busse 2002: 51)

- It is fairly clear that the early loss of V-Adv orders (starting in the mid-15th century) cannot be attributed to the loss of verbal agreement (2sg agreement remains relatively robust till the 17th century).
- Problem for both the strong and the weak version of the RAH: The loss of verb movement in the history of English cannot be attributed to the loss of verbal agreement morphology ⇒ **syntactic change precedes the loss of rich agreement**.¹⁰

3.4 Preliminary summary

- An account in terms of ‘forced’ reanalysis does not seem to be readily available for the changes in Danish and English (see appendix I for French).
- Particularly problematic (for all versions of the RAH): Cases where syntactic change precedes morphological change (see also Fischer 2010).
- Potentially more promising: Trigger of V-to-T movement is not (solely) agreement, but other verb-related inflectional categories such as Tense/Aspect/Mood, possibly in combination with agreement (Biberauer & Roberts 2010 on French and English, Holmberg & Roberts 2013, Haerberli & Ihsane 2015 on English).
- Modern (spoken) French: Weak agreement (due to the extension of *on* ‘(some)one’ to 1pl), but obligatory verb movement across adverbs and negation:

¹⁰ Note that frequent verbs such as *know* (not considered by Ellegård 1953; cf. Hale 2007 for critical discussion) resisted do-support much longer and continued to undergo verb movement: If V-to-T is a syntactic parameter, then lexical exceptions (not triggered by morphology) must be possible (similar to *have/be* raising in present-day English, cf. e.g. Roberts 1998).

| | Written language | Phonetic form |
|-----|------------------|-------------------------------|
| 1sg | porte | [pɔʁt] |
| 2sg | portes | [pɔʁt] |
| 3sg | porte | [pɔʁt] |
| 1pl | (on) porte | [pɔʁt] |
| | (nous) portons | not used in Colloquial French |
| 2pl | portez | [pɔʁ'te:] |
| 3pl | portent | [pɔʁt] |

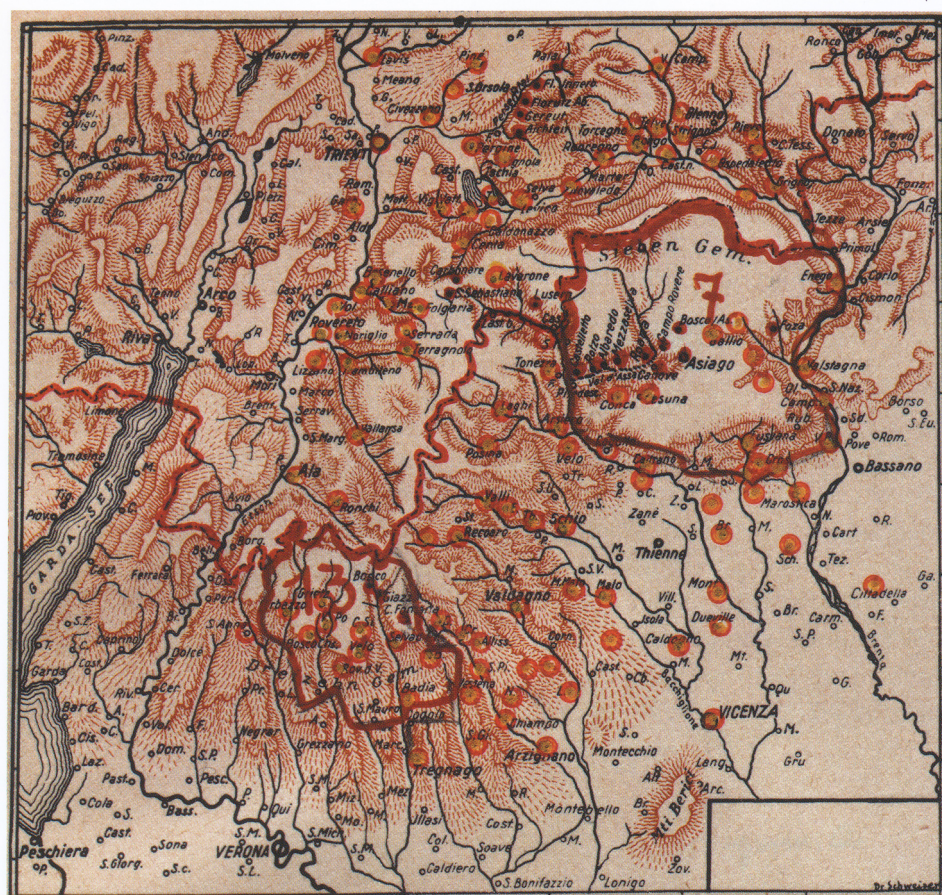
Table 4: Subject agreement in written/spoken French

- (6) Loïc visite souvent ses parents.
Loïc visits often his parents
'Loïc often visits his parents.'
- (7) French: *parle* (present indicative/subjunctive), *parlerai* (future), *parlerais* (conditional), *parlais* (imperfect)
- (8) a. English: *speak* (present), *spoke* (past)
b. Swedish: *snakker* (present), *snakket* (past)
- Earlier stages of English/Mainland Scandinavian: Productive indicative/subjunctive distinction which might have contributed to the richness of verbal inflections (cf. Haerberli & Ihsane 2015 on English).

4. New and additional problems: Lack of V-to-I and the change from OV to VO

4.1 Cimbrian

- Cimbrian is a cover term for a set of German dialects spoken in North-Eastern Italy, in an area between Trento, Verona, and Vicenza.
- The dialects are closely related to South Bavarian varieties spoken to the north of the Austrian-Italian border.
- There used to be at least three different major varieties of Cimbrian, which were originally spoken in two groups of municipalities called the seven communities (main village: Roana) and thirteen communities (main village: Giazza), and the village of Lusern. Today, the active use of Cimbrian is more or less confined to Lusern (around 250 speakers).
- Another group of German speaking settlements is located to the north of the Cimbrian area in the Fersental (Mòcheno), cf. e.g. Rowley (2003), Cognola (2013).







-  Umgrenzung der Sieben und Dreizehn Gemeinden
-  Orte, für die frühere zimbrische Sprache durch Flurnamen u.a. glaubhaft erscheint
-  Orte, in denen noch in der Gegenwart Zimbrisch gesprochen wird oder bis vor kurzem wurde
-  alte Tirolisch-Italienische Grenze bis 1919

Figure 3: German linguistic enclaves in North-Eastern Italy (Schweizer 1954/2012: 59)

- The original Cimbrian settlers were German/Austrian miners and lumberjacks that came to the Dolomites in the 11th-12th century (cf. Kranzmayer 1981, Baum 1983).
- Since then, Cimbrian is in close contact with the surrounding Romance varieties (Italian, North-Italian dialects). As a result, Cimbrian has borrowed many lexical items and even functional morphemes from its Romance neighbors (including e.g. the complementizer *ke* <<< *che*). Further contact-induced properties include syntactic constructions with a decidedly Romance flavor as e.g. clitic doubling of fronted objects:¹¹

¹¹ Kolmer (2012: 207ff.) shows that the relevant construction shares a number of properties with clitic left dislocation in Italian/Romance (cf. e.g. Rizzi 1997). For example, clitic doubling is found only with topicalized DPs, but not with focused material or elements (such as indefinites) that cannot be topics. Additional similarities with Romance varieties show up in inversion constructions where the subject appears to the right of non-finite verbs as in (i) (Panieri et al. 2006: 320f.):

(i) izz=ar gest dahùam dar pekh gestarn?
 is=he been home the farmer yesterday?
 Ital.: era a casa il fornaio ieri?

(9) *alora in ruman hat=ma=en gelek drin in söttan kübl.*
 then the cream has=one=it put in in such-a bucket
 (Lusern, Kolmer 2012: 131)

- The intriguing combination of archaic and innovative (contact-induced) traits has been attracting the interest of linguists from quite early on (cf. e.g. Schmeller 1838; Kranzmayer 1981; Schweizer 1951/2008; Tyroller 2003; Grewendorf & Poletto 2005, 2009; Bidese 2008; Padovan 2011; Kolmer 2012; Bidese & Tomaselli, to appear; Bidese, Padovan & Tomaselli, to appear).
- The Cimbrian dialects are of particular interest for our purposes, since they exhibit various stages of the transition from OV to VO order, probably due to contact with the surrounding Romance VO varieties (cf. Grewendorf & Poletto 2005, Kolmer 2012 for details). As a result, it is possible to establish whether the finite verb moves to Infl/T (in contrast to German OV varieties).

4.1.1 Basic morphosyntactic properties of Cimbrian (Lusern)

- Residue of V2 (inversion confined to clitic subjects; full DP subjects precede the finite verb in unembedded clauses), cf. (10). As shown in (11), inversion with full subjects leads to ungrammaticality.¹²

(10) a. [ka herbest] **han**=sa gelest [di patatn].
 in fall have=they harvested the potatoes
 b. [dar mon] [ka herbest] **is** kent humman.
 the man in fall is come home
 c. un [dopo] [dar sun, dar Diego], **is** gont [no soinar arbat]
 and then the son the Diego is gone after his work
 (Lusern, Kolmer 2012: 123f.)

(11) **Haüte geat dar Gianni vort.*
 today goes the Gianni away
 (Grewendorf & Poletto 2005: 4)

- Indicators of basic VO order:
 - ❖ Verbs typically precede phrasal objects, as already shown in (10) for main clauses; see (12) for VO in embedded clauses; in addition, object pronouns may attach to the right of non-finite verbs (in particular with borrowed verbs), as shown in (13).

(12) *S Beibe bo da-r-en **hat** geet [a Liber]*
 the woman REL there-he-her has given a book
 (Lusern, Grewendorf & Poletto 2005: 11)

(13) *pero dar **möcht** promettarn=en, ke dar lat=me nemear gian.*
 but he must promise=him that he let=him not-anymore go
 (Lusern, Kolmer 2012: 149)

¹² The other Cimbrian varieties (Roana and Giazza) had completely lost the V2-property quite early, as shown by texts from the early 20th century (cf. Bidese 2008).

- ❖ Finite verbs always precede non-finite verbs; governing non-finite verbs precede governed non-finite verbs in the verbal complex:

- (14) a. Sa hom khött ke dar Gianni **hat**₁ net geböllt₂ gian₃ [pit ze]
 they have said that the Gianni has not wanted go with them
 b. *Sa hon khött ke dar Gianni **hat**₁ net gian₃ geböllt₂ [pit ze].
 (Lusern, Grewendorf & Poletto 2005))

- ❖ (Separable) Verbal particles: In VO-languages, verbal particles typically follow the verb, while they precede the verb in OV-languages. Cimbrian exhibits both options; this suggests that the transition from OV to VO is not yet fully complete (Grewendorf & Poletto 2005: 18).¹³

(15) Main clauses:

- a. I hon **au**-gehort die Arbai ka Tria.
 I have PRT-cancelled the job in Trent
 b. I hon gehort-**au** di Arbat.
 c. *I hon die Arbat **au**-gehort.

(16) Embedded clauses:

- a. dar Mann bo da hat **o**-geheft a näuga Arbat
 the man REL there has PRT-begun a new job
 b. dar Mann bo da hat geheft-**o** a näuga Arbat

- Further residues of OV:

- ❖ In contrast to pure VO-languages, certain types of elements may appear to the left of the non-finite verb, giving rise to a reduced sentence bracket. The set includes (clitic) object pronouns, reflexive pronouns, and indefinites/quantifiers (cf. Grewendorf & Poletto 2005, Kolmer 2012; see below for the position of negation and adverbs):¹⁴

- (17) a. allora dopo **hat**=ar=mar=s aukunftart
 thereafter has=he=me=it told
 b. un escht **man**=sa=se fermarn da o.
 and now can=they=REFL remain there above
 (Lusern, Kolmer 2012: 123)

- (18) a. I **hon** niamat/eparummas/aniaglas gesek.
 I have nobody/somebody/everybody seen
 b. I **hon** gesek niamat/eparummas/aniaglas.
 (Lusern, Grewendorf & Poletto 2005: 14)

¹³ Grewendorf & Poletto (2005: 19) note that the variety spoken in Roana (seven communities) exhibits a more advanced stage of the change from OV to VO, as verbal particles must follow the verb:

- (i) a. Häüte der Gianni is gont-vort.
 today the Gianni is gone-away
 b. *Häüte der Gianni is vort-gon.

¹⁴ Note that in contrast to Italian/Romance (which typically exhibits proclitics that attach to the finite verb), Cimbrian exhibits the Germanic system of enclitic pronouns that usually attach to the (fronted) verb in main clauses, and to the complementizer in embedded clauses. However, it seems that the main-embedded-asymmetry is subject to erosion in present-day Cimbrian. As a result, clitics tend to attach to verbal forms in (certain types of) embedded clauses as well (cf. Kolmer 2012 for details).

- Verbal inflections (person/number):

| | Lusern | Giazza | Roana | Fersental |
|-----|--------|--------|--------|-----------|
| 1sg | (-e) | -e (a) | -e (a) | – |
| 2sg | -est | -ast | -est | -st |
| 3sg | -et | -at | -et | -t |
| 1pl | -n | -an | -en | -n |
| 2pl | -et | -at | -et | -t |
| 3pl | -n | -an | -ent | -n |

Table 5: Verbal person/number markers in Cimbrian (Schweizer 1951/2008: 428)

- As shown in Table 5, Cimbrian has largely preserved the set of verbal agreement markers typical of most German varieties. Accordingly, the paradigm counts as rich according to Koenen & Zeijlstra's definition, and we expect Cimbrian to exhibit verb movement to a position to the left of (low) adverbs and negation.

4.1.2 The position of the finite verb – asymmetries between root and embedded clauses

- Despite the fact that Cimbrian has by and large turned into a VO language, at least the variety spoken in Lusern has preserved a basic word order asymmetry between root clauses and embedded clauses (cf. Panieri et al. 2006, Bidese 2008, Grewendorf & Poletto 2009, Kolmer 2012, Bidese & Tomaselli, to appear, Bidese, Padovan & Tomaselli, to appear).
- The differences are confined to relative clauses (introduced by *bo*) and embedded clauses introduced by the complementizers *az* 'that, if', *bal* 'when/if', *benn* 'if', *intânto az* 'while', *ãnka az* 'even if', *dopo az* 'after', *fin az* 'until', and *ena az* 'unless'.
- Embedded clauses introduced by the complementizers *ke* 'that', *benn* 'when', *bia* 'as', *umbròmm* 'because', *bia nã* 'why' basically exhibit the same word order properties as root clauses (cf. Panieri et al. 2006, Bidese 2008, Grewendorf & Poletto 2009, Kolmer 2012).

Position relative to (pronominal) clitics

- In root clauses, clitic pronouns attach to the right of the finite verb:

- (19) a. mornǵ **ge=bar=s=en**.
 tomorrow give=we=it=them.DAT
 b. alora **tran=s(a)=en** in huat.
 then bring=they=him the hat
 (Lusern, Kolmer 2012: 111)

- In *az/bo*-type embedded clauses, the clitics usually attach to the right of the complementizer/relativizer (cf. Kolmer 2012 for details and further placement options):

- (20) a. [...] die penkh **bo=sa** abas **han** gemacht filo
 the benches REL/where=they in-the-evening had made much
 (Lusern, Kolmer 2012: 116)

- b. Da soin vortgont ena az=ta=s niamat **barn**.
 they are away-gone before that=there=it nobody noticed
 (Lusern, Grewendorf & Poletto 2009: 188)

- Adopting the standard assumption that (Wackernagel) clitics occupy a fixed position at the left edge of the middle field (=IP/TP), the word order differences suggest that the finite verb raises to a position to the left of clitics in main clauses, but remains in a lower position in (certain) embedded clauses.
- Position of the finite verb in embedded clauses: Infl/T or lower (i.e, VP-internal)?

Position relative to negation

- In root clauses, the finite verb precedes the negation *net* (both main verbs and auxiliaries):

- (21) a. I **gea** nèt ka miss.
 I go not to mass
 b. I **hån** nèt giböllt gian ka Tria.
 I have not wanted go to Trent
 (Lusern, Panieri et al. 2006: 331)

- In *az/bo*-type embedded clauses, the finite verb appears to the right of the negation:

- (22) a. às=to nèt **geast** ...
 if=you not go
 (Lusern, Panieri et al. 2006: 341)
 b. un bo=bar biar o net **han** gewisst
 and who=we we too not have known
 (Lusern, Kolmer 2012: 127)

- Note that finite auxiliaries and modal verbs can optionally precede the negation in embedded clauses (Panieri et al. 2006: 341, Grewendorf & Poletto 2009: 186):

- (23) a. azz=a=dar **hat** net khött zo kemma
 that=he=you.dat has not said to come
 (Lusern, Grewendorf & Poletto 2009: 186)
 b. bal dar **bill** nèt gian, schikh=en vort!
 if he wants not go send=him away
 (Lusern, Panieri et al. 2006: 341)

- This suggests that finite (main) verbs stay in a low VP-internal position in *az/bo*-clauses (under standard assumptions, the negation occupies a position directly above VP).
- In contrast, *ke*-type clauses behave on a par with root clauses:

- (24) I boaz [ke häüt **geast**=to nèt ka Tria].
 I know that today go=you not to Trent
 (Bidese, Padovan & Tomaselli, to appear: 5)

Position relative to adverbs

- Temporal and causal adverbs preferably occur clause-initially, while other adverbs generally follow the predicate (including non-finite verbs, Panieri et al. 2006: 305f.).
- However, there is a class of (short) adverbs that also may occur in preverbal position. With these, we can observe an asymmetry between main clauses and *az/bo*-type embedded clauses:¹⁵

- (25) a. Dar **hat** za gerüaft.
 he has already phoned
 b. az ar za vort **is** gont
 that he already away is gone
 (Lusern, Grewendorf & Poletto 2009: 184)

- The root/embedded asymmetry (Lusern) is usually analyzed in the following way:
 - ❖ Root clauses: The finite verb targets a position at the left edge of the middle field, a residue of the former V2-constant;
 - ❖ Embedded clauses (*az/bo*): The finite verb does not move to Infl/T, but occupies a VP-internal position (cf. Bidese 2008, Grewendorf & Poletto 2009, Bidese & Tomaselli, to appear, Bidese, Padovan & Tomaselli, to appear):¹⁶

(26) *Root clauses*

- a. [_{TopP} Gestarn [_{FocP} [_{FinP} dar pua [_{Fin°} **hatt** [_{TP} [_{NegP} [_{Aux} **hatt** [_{VP} gesekk in has]]]]]]]]]]
 b. [_{TopP} Gestarn [_{FocP} [_{FinP} [_{Fin°} **hatt=ar** [_{TP} [_{NegP} [_{Aux} **hatt** [_{VP} gesekk in has]]]]]]]]]
 ‘Yesterday, the boy/he saw a hare.’
 c. [_{TopP} Haüt [_{FocP} [_{FinP} [_{Fin°} **geast=(t)o** [_{TP} [_{NegP} nèt [_{Aux} [_{VP} **geast** ka Tria]]]]]]]]]]
 ‘You are not going to Trent today.’

(27) *Embedded clauses*

- a. ... [_{TopP} [_{FocP} [_{FinP} [_{Fin°} az=to [_{TP} [_{NegP} nèt [_{Aux} [_{VP} **geast** ka Tria]]]]]]]]]]
 ‘that/if you don’t go to Trent’
 b. ... [_{TopP} [_{FocP} [_{FinP} [_{Fin°} az=ar [_{TP} **hatt** [_{NegP} nèt [_{Aux} **hatt** [_{VP} gesekk in has]]]]]]]]]]
 ‘that/if he didn’t see a hare’ (optional fronting of auxiliaries/modals)
 c. [_{ForceP} ke [_{TopP} haüt [_{FocP} [_{FinP} [_{Fin°} **geast=(t)o** [_{TP} [_{NegP} nèt [_{Aux} [_{VP} **geast** ka Tria]]]]]]]]]]
 ‘that you don’t go to Trent today’ (loss of root/embedded asymmetry with *ke*)

- Conclusions/Cimbrian (Lusern):
 - ❖ Basic word order change (SOV → SVO), probably due to language contact with Romance varieties/Italian.
 - ❖ Root clauses: Verb movement into the C-domain, probably a residue of a former Germanic V2-system (not linked to verbal inflection).

¹⁵ In the following example taken from Kolmer (2012: 116), a temporal adverb (*abas* ‘in the evening’) intervenes between the subject pronoun and the finite verb:

(i) un sem han=sa gehat die penkh bo=sa abas **han** gemacht filo
 and there had=they had the benches where=they in-the-evening had made much

¹⁶ The structures in (29) and (30) basically follow the proposal in Bidese, Padovan & Tomaselli (to appear).

- ❖ Embedded clauses (az/bo-type): Finite main verbs occur to the right of negation and adverbs, which are commonly used as diagnostics for verb movement: **Problem for all version of the RAH (strong or weak)**.¹⁷
 - ❖ The Cimbrian data seems to be compatible with approaches that link V-to-I to the richness of tense distinctions (Cimbrian exhibits the ‘weak’ Germanic system of tense).
 - ❖ Embedded clauses (ke-type): Same word order pattern as in root clauses. This is reminiscent of developments in the other Cimbrian VO-varieties (Roana and Giazza), which have completely lost the root/embedded asymmetry (similar to Italian/Romance, cf. e.g. Bidese 2008 and Kolmer 2012 for details).
- Further indications that the variety of Lusern might eventually follow a similar trajectory are cases where finite and non-finite verbs act as hosts for pronominal clitics in *az/bo*-type clauses (cf. Kolmer 2012 for details).¹⁸

(28) a. *preverbal position of nominal subject*:

pan summar soin=da drai bochan, bo=da organizart dar
 in-the summer are=there three weeks REL=there organizes the
 Kulturinstitut, bo=da di kindar **man=se** inschraim
 culture institute REL=there the children may=REFL enroll
 (Lusern, Kolmer 2012: 138)

b. *modal verb constructions with borrowed non-finite verbs*:

pero dar **möcht** promettarn=en, ke dar lat=me nemear gian.
 but he must promise=him that he let=him not-anymore go
 (Lusern, Kolmer 2012: 149)

4.2 The rise of SVO in Lithuanian

- Traditional hypothesis: Basic OV is linked to rich case morphology; loss of case distinctions gives rise to basic VO (cf. e.g. Sapir 1921, Vennemann 1975, Roberts 1997).¹⁹
- Diachronic case study: Lithuanian
- Lithuanian is one of the most conservative (European) IE languages and has preserved a rich array of nominal and verbal inflections.
- Standard Lithuanian: 5 declension classes, 7 morphologically distinct cases (nominative, genitive, dative, accusative, instrumental, locative, vocative)²⁰, and fully distinct verbal agreement morphology (Ambrazas 1997):

¹⁷ Finite auxiliaries may occupy a higher position (similar to English), though.

¹⁸ When this change is complete, Cimbrian will eventually comply with the RAH.

¹⁹ Well-known exceptions include: SVO/rich case morphology (Icelandic), SOV/poor case morphology (Dutch and Afrikaans, which provide additional examples of morphological change (loss of case morphology) without or with delayed syntactic change).

²⁰ Note that the paradigm in table 3 exhibits only a single syncretism (voc. pl. = nom.pl.). In other paradigms of the (*i*)a-declension (e.g., *vyras* ‘man’), the vocative singular falls together with the locative. Certain dialects of Lithuanian display even richer case systems with additional forms for inessive (‘in’) and illative (‘into’) (Eastern High Lithuanian), or adessive (‘at’) and allative (‘toward’) (Belorus dialects), cf. Ambrazas (2007: 106).

| <i>brólis</i> ‘brother’ | Singular | Plural |
|-------------------------|----------|-----------|
| Nom. | brólis | bróliai |
| Gen. | brólio | brólių |
| Dat. | bróliui | bróliams |
| Acc. | brólį | brólius |
| Instr. | bróliu | bróliais |
| Loc. | brólyje | bróliuose |
| Voc. | bróli | bróliai |

Table 6: Case in Stand. Lithuanian ((i)a-declension, 3rd paradigm; Ambrazas 1997: 111)

- Still, the language has been undergoing a major word order change in its recent recorded history (basic SOV → basic SVO, cf. e.g. Reklaitis 1980, Hock 1991: 374) that cannot be attributed to language contact.
- At least until the early 20th century, Lithuanian was commonly described as a basic SOV language (with a number of additional word order options linked to information-structural distinctions, emphasis etc.):²¹

“Die ESt [Endstellung] des Verbums im Lit. ist bei weitem die häufigste, sie läßt die beiden anderen Stellungsarten an Häufigkeit weit hinter sich. Sie muß daher als die habituelle bezeichnet werden.” (Schwentner 1922: 20)

‘In Lithuanian, final position of the verb is by far the most common option. It is much more frequent than other word order options and should therefore be identified as the habitual one.’

- (29) bet vyrs su didžu nerimasczu pėtu czėos **laukė** **SOV**
 but the-man with great uneasiness lunch this awaited-PERF-3SG
 ‘but the man awaited lunchtime with great uneasiness’
 (Schwentner 1922: 20)

“Das Verbum steht im Nebensätze am Ende, wenn habituelle Wortstellung vorliegt. [...] Viel seltener tritt im Nebensätze MSt [Mittelstellung] des Verbums auf, und zwar nur okkasionell, wenn das Objekt betont ist und hinter das Verb tritt:“ (Schwentner 1922: 22f.)

‘In the embedded clause, the verb occurs in final position if habitual word order obtains. [...] A medial position of the verb is much rarer in the embedded clause; it occurs occasionally when the object is stressed and placed to the right of the verb.’

²¹ Lithuanian provides an interesting case for the investigation of word order change in progress. The reasons for the (ongoing) change in basic word order remain unclear. Reklaitis (1980) claims that the transition from SOV to SVO already began in Old Lithuanian, where according to her counts SVO is already twice as frequent as SOV (while in present-day texts SVO is more than five times more frequent). However, as her observations are based on a very small sample (less than 100 clauses for mod. Lithuanian, and even smaller numbers for Old Lithuanian), it is not clear whether any firm conclusions can be drawn on the basis of her observations. There are reasons to believe that the rise of basic SVO syntax was ‘a change from above’ guided by the work of normative grammarians such as Jonas Jablonskis (1860-1930) who played an influential role in the standardization of the language (based on the Aukštaitian dialect spoken in the Suvalkija region) in the 19th and 20th century.

(30) kad nēkados ir nēkados nei koki pikta žodėli prėsz SOV
 that never and never not any bad word-little to
 kits kitą **nepasisakydavo**
 each other NEG-said-FREQ-3PL
 ‘that they never said a mean word to each other’
 (Schwentner 1922: 22)

(31) kad laumė **prigavo** ju sescri SVO
 that the-elf caught her sister
 ‘that the elf caught her sister [lying]’
 (Schwentner 1922: 23)

- Present-day (Standard) Lithuanian: Standard descriptive works identify SVO as the basic word order (with multiple additional orders dependent on the information-structural status of the constituents of the clause), cf. e.g. Ambrazas (1997: ch. 5):²²

“Under these circumstances [thematic subject and rhematic object/VP] the neutral word order is SVO which is also the basic word order in Standard Lithuanian [...] The SVO sequence is prevalent in the official styles of Standard Lithuanian. If the object is placed before the verb (SOV) it sometimes receives more emphasis [...]” (Ambrazas 1997: 695)

(32) a. Vaikai **suvalgė** [visus obuolius].
 the-children-NOM eat-PERF-3PL all apples-ACC
 ‘The children have eaten all the apples.’
 b. Vaikai [visus obuolius] **suvalgė**.
 ‘The children have eaten all the apples.’

“However, the (S)OV sequence is not always stylistically marked: in many cases SVO and SOV alternate without any marked difference. Moreover, SOV is neutral and more common in a number of cases, especially if the object is a pronoun [...]” (Ambrazas 1997: 695)

- SOV order is triggered by certain grammatical and extra-grammatical factors (cf. Ambrazas 1997: 695). Especially contexts ii. and iii. suggest that SOV is the more ancient word order option.

i. Object pronouns usually precede the (finite) verb (similar to French)

(33) Visas miėstas manė **gerbė**.
 the-whole town me respected
 ‘The whole town respected me.’

ii. SOV is the dominant order in certain constructions (set phrases, in particular; see also Franks & Lavine 2007 on infinitival constructions)

(34) a. Pirmi gaidziai vėlnia **baido**.
 the-first roosters the-devil scare
 ‘Early roosters scare away the devil.’

²² In the unmarked/neutral order, the theme typically precedes the rheme (which preferably occupies the sentence-final position) in Lithuanian. Marked information structure (e.g. rhematic subjects and/or thematic objects) typically leads to permutations of word order (VSO, OVS etc.).

- b. Dárbas dárba **vėja**.
work-NOM work-ACC chase
'Work chases work.' (i.e., 'There is too much work.')

iii. In dialects and spoken/colloquial varieties, SOV is still more common than SVO.

The rise of SVO and the RAH

- Given the rich verbal inflection of Lithuanian, we should perhaps expect the verb to occur to the left of negation and adverbs in SVO patterns. As will be shown shortly, this expectation is not borne out by the facts.
- Verbal inflection: three conjugations (marked by thematic vowels *-a, -i, -o*), rich person and number agreement, four different synthetic tenses (present, past, frequentative past ('used to V'), future), four moods, rich system of participles (13 different forms) conveying aspectual differences.

| dirbti 'to work' | Present | Past | Past freq. | Future |
|------------------|-----------|-----------|---------------|-------------|
| 1sg | dìrb-u | dirb-a-u | dirb-dav-a-u | dìrb-s-i-u |
| 2sg | dìrb-i | dirb-a-i | dirb-dav-a-i | dìrb-s-i |
| 3sg | dìrb-a | dirb-o | dirb-dav-o | dìrb-s |
| 1pl | dìrb-a-me | dirb-o-me | dirb-dav-o-me | dìrb-s-i-me |
| 2pl | dìrb-a-te | dirb-o-te | dirb-dav-o-te | dìrb-s-i-te |
| 3pl | dirb-a | dirb-o | dirb-dav-o | dìrb-s |

Table 7: Tense and agreement marking on verbs in Lithuanian (1st conjugation)

Diagnostics for verb movement 1: Position of the verb relative to negation

- At first sight, negation does not seem to be a good indicator of verb position in Lithuanian: Sentences are negated by adding the prefix/particle *ne* to the verb (*ne* accompanies verb movement, e.g. to clause-initial position in inversion contexts).
- However, to intensify negation, the particle *nė/neĩ* can be added. *nė/neĩ* can be placed either before the verb, cf. (35a) or before any other constituent, cf. (35b) (Ambrazas 1997: 671f.).

(35) a. Mókytoja **nė/nei** nepàžvelgė į sąsiuvinį.
the-teacher NEG NEG-glanced at the-copybook
'The teacher did not even glance at the copybook.'

b. Jis nepàjėgė daugiau **nė/nei** žodžio ištañti.
he NEG-can more NEG word utter
'He could not utter a single word.' (lit. 'He could not utter not a word more.')

- If the added negator in cases like (35a) signals the position of NegP, then this might be taken to suggest that the verb does not move further than Neg⁰ in Lithuanian.
- Negative adverbs such as *niekadà* 'never' also precede the verb in the unmarked order (Ambrazas 1997: 673):

(36) Táu niėkas **niekadà** nedàrė jokių priėkaištų.
you.DAT.SG nobody never NEG-make any reproaches
'No one has ever reproached you for anything.' (lit. 'No one never did not make you no reproaches.')

Diagnostics for verb movement 2: Position of the verb relative to adverbs

- “the neutral position of an adverbial of manner or an adjectival modifier is before a verb” (Ambrazas 1997: 690)
- “The *neutral* position of adverbs is immediately in front of the verb they qualify. This is above all the case with adverbs of manner” (Mathiassen 1996: 240)

- (37) a. Jie **gerai** dirba.
 he well works
 ‘He works well’
 (Mathiassen 1996: 240)
- b. Jis **aiškiai** pasakė
 he clearly said
 ‘He clearly said.’
 (Ambrazas 1997: 690)

- As a marked option, adverbs can also occur postverbally; however, “inverted” adverbs are typically interpreted as the rheme and receive stress/emphasis (Ambrazas 1997: 690, 699).
- In a similar vein, adverbial particles (typically rendered by adverbs in English) precede the verb (Ambrazas 1997: 701):

- (38) a. **dár** nemiėga
 yet NEG-sleep-3PL
 ‘(They) are not asleep yet.’
- b. **jaũ** atėjo
 already came-3SG
 ‘(He) has already come.’
- c. **bevéik** suprataũ
 almost understood-1SG
 ‘(I) almost understood.’
- d. **nèt** nežinaũ
 even NEG-know-1SG
 ‘(I) don’t even know.’
- e. **võs** jũda-3SG
 hardly moves
 ‘(He) hardly moves.’

- If the verb is modified by more than a single adverb, the verb is typically directly preceded by a manner adverb with other adverbs further to the left:

- (39) Jis **visadà ramiaĩ** miėga.
 he always quietly sleeps
 ‘He always sleeps quietly.’
 (Ambrazas 1997: 700)

- Conclusions/Lithuanian:
 - ❖ Basic word order change (SOV → SVO) without any changes affecting the exceptionally rich system of verbal and nominal inflections.

- ❖ In SVO orders, the verb preferably occurs to the right of negation and (low) adverbs, which are commonly used as diagnostics for verb movement: **Problem for all version of the RAH (strong or weak)**
- ❖ Due to the overall richness of verbal inflections (including tense), Lithuanian is also a problem for the idea that verb movement is linked to other inflectional categories such as Tense (Biberauer & Roberts 2010).

5. Concluding summary

- In many cases, morphological change and syntactic change do not go hand in hand:
 - ❖ Morphological change without or with delayed syntactic change (Danish)
 - ❖ Syntactic change without or with delayed morphological change (English)
 - ❖ Lack of verb movement after a change from OV to VO (despite rich Agr: Cimbrian, Lithuanian)
- Morphological triggers of verb movement (V-to-I): Agreement alone seemingly does not do the trick; at least for cases like English, French, and possibly Scandinavian, it is perhaps more promising to link verb movement to other categories such as tense/aspect/mood morphology (cf. e.g. Biberauer & Roberts 2010, Haeberli & Ihsane 2015), or the combined ‘richness’ of various types of verbal inflections (Holmberg & Roberts 2013).
- Still, cases like Cimbrian and Lithuanian remain problematic for any attempt to construe a morphological trigger for verb movement.
- There must be triggers of syntactic change independent of morphology (e.g., syntactic opacity leading to reanalysis of both syntax and morphology, cf. Anderson 1980, Fischer 2000).
- Still, it seems to be clear that there *is* some tradeoff relation between syntax and morphology – languages with rich inflectional morphology often exhibit syntactic properties not shared by languages with poor inflectional morphology; over time, a change in one component often leads to changes in the other etc.
- However, this does not necessarily entail a direct connection between morphology and syntax; the observed correlations may also be the reflex of historical developments (for related considerations cf. e.g. Alexiadou & Fanselow 2002 and McWhorter 2005, ch. 12).^{23, 24}
 - ❖ Morphological change may reduce the evidence for (or practical functionality of) a certain kind of syntactic system (i.e., a combination of parameter settings), which in the long run may lead to a bias against the acquisition of certain syntactic properties – either because adult speakers tend to avoid syntactic strings that express the older setting (e.g. scrambling after the loss of case morphology), or because the loss of inflections opens up the possibility of a new grammar that parses the input more successfully than the older competitor and gradually spreads in a speaker community (cf. e.g. Heycock & Wallenberg 2013 on the loss of verb movement in Scandinavian).

²³ Alexiadou & Fanselow (2002) propose a diachronic explanation for the RAH. The basic idea is that verbs must move to a relatively high position before rich suffixal agreement can develop from a reanalysis of subject enclitics. The connection between verb position and richness of person/number marking thus reflects the historical circumstances in which rich (suffixal) verbal agreement can develop. The cross-linguistic rarity of prefixal agreement can possibly be traced back to the fact that proclitics are less likely to be reanalyzed as inflections (cf. e.g. Himmelmann 2014).

²⁴ Under the assumption that the learner is conservative it is actually quite unlikely that the loss of a certain trait is immediately compensated by another change that leads to an output that further deviates from the target grammar (though there may be exceptions, reanalysis, in particular).

- ❖ The loss of a certain encoding option may exert a functional pressure that over time may lead to the emergence of alternative coding options (e.g., fixed SVO word order instead of case marking).²⁵
- ❖ The loss of discourse-pragmatic functions linked to a certain syntactic pattern *S* may lead to syntactic opacity and ultimately the loss of *S* (independent of *M*).
- This state of affairs seems to sit more comfortably with approaches that posit a less tight relation between syntax and morphology and allow more leeway in the diachronic transition from one grammar to another.

²⁵ One might possibly entertain the idea that the loss of verb movement is linked to the loss of verbal inflections in a way similar to the link between fixed SVO order and the loss of case inflections. When verbal inflection ceases to function as an indicator of syntactic category, there might be a tendency for the verb to assume a fixed position relative to adverbs and negation that corresponds to the unmarked option, namely the verb's base position inside the VP.

Appendix I: Morphological change and delayed syntactic change in French

- Modern (spoken) French: Weak agreement (due to the extension of *on* ‘(some)one’ to 1pl), but obligatory verb movement across adverbs and negation:

| | Written language | Phonetic form |
|-----|------------------|-------------------------------|
| 1sg | porte | [pɔʁt] |
| 2sg | portes | [pɔʁt] |
| 3sg | porte | [pɔʁt] |
| 1pl | (on) porte | [pɔʁt] |
| | (nous) portons | not used in Colloquial French |
| 2pl | portez | [pɔʁ'te:] |
| 3pl | portent | [pɔʁt] |

Table 8: Subject agreement in written/spoken French

- (40) Loïc visite souvent ses parents.
Loïc visits often his parents
‘Loïc often visits his parents.’

- ❖ Similar to Danish, it seems that the loss of inflections (Middle French, 14th-16th century, cf. Wartburg 1970, Ashby 1977, Harris 1978, Roberts 1993, Vance 1997) had no direct influence on the availability of verb movement.
- ❖ The weak RAH: again, no problem.
- ❖ The strong RAH (Koenenman & Zeijlstra 2014): Reanalysis/grammaticalization – the loss of verbal agreement suffixes in combination with V-Adv/Neg patterns triggered an ongoing change in which subject clitics first became obligatory and then underwent a **reanalysis as prefixal agreement markers**.²⁶

- (5) Moi, je travail souvent la nuit.

- [_{CP} *moi* [_{IP} *je* [_{I'} *travail* [_{VP} *souvent* ...]]]] is reanalyzed as:
- [_{CP} [_{IP} *moi* [_{I'} *je*_{AGR}+*travail* [_{VP} *souvent* ...]]]]

²⁶ In the history of French, we can observe a cluster of changes involving pronouns, verbal agreement and the pro-drop property, which appears to be cyclic in nature (cf. e.g. Wartburg 1970, Ashby 1977, Harris 1978, Lambrecht 1981, Roberge 1990, Roberts 1993, Vance 1997, Roberts 2010):

- distinctive verbal Agr/pro-drop (OFr.)
- loss of Agr/loss of pro-drop (Middle Fr., 14th-16th century)
- subject pronouns lose emphatic force and become clitics (15th-18th century)
- clitics are reanalyzed as verbal agreement/rise of pro-drop (ongoing change)

Note that according to Wartburg (1970: 72) and Harris (1978: 113), the rise of overt pronouns (in Middle French) is not directly related to the loss of agreement morphology, but rather is linked to word order properties and prosodic factors (in fact, Harris claims that subject pronouns became obligatory prior to the erosion of the agreement system, but see Simonenko et al. 2015 for a different conclusion based on a quantitative analysis of data from the MCVF corpus of historical French). Givón (1976) claims that the rise of new agreement markers in French involves a reanalysis of a former topic left dislocation structure. However, there are at least some indications that the relevant syntactic environment was *not* topic left dislocation, but rather a structure where a reinforcing full form (e.g. the oblique 1sg form *moi*) has been added to the non-stressable clitic for reasons of emphasis/focus (cf. Wartburg 1970, Ashby 1977 for details).

- Observation: The subject ‘clitics’ of Colloquial French differ from those of the standard language:²⁷
 - i. The preverbal ‘subject clitics’ are obligatory, occupy a fixed position, may not receive stress and cannot be replaced by full tonic pronouns (historically an oblique form); examples with apparent clitic doubling generally favor a basic, non-dislocated interpretation:

Colloquial French

- (41) a. (Moi) je porte la table.
 me 1SG carry the table
 ‘I carry the table.’
 b. Moi *(je) porte la table.
 me 1SG carry the table
 ‘I carry the table.’
 (Gerlach 2002:224)
- ii. In ‘advanced’ non-standard varieties of French (Picard, or Pied-Noir), doubling has been extended to quantified expressions and indefinite NPs (cf. Roberge 1990, Friedemann 1997, Auger 1994b, 2003):²⁸
- (42) Personne **i(I)** sait qui c’est leur mère.
 nobody he knows who that-is their mother
 ‘Nobody knows who is their mother.’
 (Pied-Noir, Friedemann 1997: 125)
- (43) Un homme **il** vient.
 a man he comes
 (Pied-Noir, Roberge 1990: 97)
- (44) Chacun **il** a sa chimère.
 everybody he has his spleen
 ‘Everybody has a spleen.’
 (Picard, Friedemann 1997: 125)

Problems (cf. e.g. de Cat 2005):

- All colloquial varieties of French exhibit verb movement and the extension of *on* to 1pl, but only in some of them, the ‘subject clitics’ show all characteristics of agreement prefixes. In particular, in many spoken varieties of French, the clitics are incompatible with quantified expressions, indefinite DPs, and *wh*-phrases.
- At least in some of the relevant varieties, it seems that the position of the alleged person/number markers (2sg, 3sg) is not fixed (the clitic follows the verb in yes/no questions):

²⁷ For details cf. Ashby (1977), Harris (1978), Lambrecht (1981), Roberge (1990), Auger (1993, 1994a, 2003), Zribi-Hertz (1994), Fonseca-Greber (2000), Fonseca-Greber and Waugh (2003), Gerlach (2002), Roberts (2010); but see de Cat (2005) for an opposing view.

²⁸ Corpus studies carried out by Fonseca-Greber (2000) and Fonseca-Greber & Waugh (2003) show that doubling is being extended to contexts with quantified NPs in spoken (Swiss) French as well. Auger (2003: 5) notes that in Picard, a default 3sg.masc clitic is also present in *wh*-questions:

(i) tchèche qu’ **il** a dit qu’ i folloit nin finir?
 who that he has said that it had-to of-it to-finish
 ‘Who said we had to put an end to it?’

(45) Peut-il avoir une petite bouchée?
 may-he have a little mouthful
 'Can he have a little bite?'
 (de Cat 2005: 1200)

- Other preverbal clitics (object clitics, elements such as *en*, *y* and the negation particle *ne*) may intervene between the alleged agreement markers and the verb, which suggests that the latter are clitics as well (Zwicky & Pullum 1983: clitics can attach to hosts+affixes, but affixes cannot attach to hosts+clitics):

(46) a. Je la lui donnerai.
 I it to-him will-give
 'I'll give it to him.'
 b. Je ne t' en veux pas.
 I NEG to-you of-it want NEG
 'I don't begrudge you.'
 c. On y va?
 we there goes
 'Shall we go?'
 (de Cat 2005: 1200)

- Conclusion: Varieties in which the preverbal person markers cannot be analyzed as agreement prefixes continue to be a problem for the strong RAH.

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